

Remodelling narrative spaces: Semiotic insights

*Remodelando espacios
narrativos. Perspectivas
semióticas*

JORGE EDUARDO URUEÑA LÓPEZ

DAMIEN TOMASELLI

ACADEMIC EDITORS

PONTIFICIA UNIVERSIDAD JAVERIANA

INTERNATIONAL ASSOCIATION FOR SEMIOTIC STUDIES

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REMODELLING NARRATIVE SPACES

Pontificia Universidad Javeriana
International Association for Semiotic Studies
Instituto Departamental de Bellas Artes

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SEMIOTIC INSIGHTS

REMODELANDO ESPACIOS NARRATIVOS
PERSPECTIVAS SEMIÓTICAS

Jorge Eduardo Ureña López
Damien Tomaselli
Academic editors





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Phone: (571) 320 8320 exts. 4563-4566
Visit comunicacionylenguaje.javeriana.edu.co/
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PREFACE

CONTEMPORARY SEMIOTICS: FUTURE STAKES FOR EARLY CAREER RESEARCHERS (ECR)

Early Career Researchers (ECR) is a network of young researchers around semiotic studies, where the commitment to interdisciplinary and transdisciplinary work contributes to the diversification of semiotic studies.

This academic community was born under the leadership of two recognised semioticians: Professor Paul Copley (UK) and Professor Kristian Bankov (Bulgaria), who were the president and secretary, respectively, of the International Association for Semiotic Studies (IASS-AIS) until 2024. They brought together a first group of researchers from different languages, contexts and areas of training, in order to create and consolidate spaces for theoretical discussion and thus promote new generations of researchers in the field of language studies nucleated in Semiotic Studies. This group was formed by Jia Peng (Asia), Damien Tomaselli (South Africa), Alin Olteanu (Europe) and Jorge Eduardo Urueña (Latin America).

This network was constituted as a space for young researchers to empower different academic and professional initiatives, in order to appeal to new theoretical excursions that ensure debate and discussion on signs, meanings and senses.

The International Association for Semiotic Studies (IASS-AIS), according to article two of its statute, seeks to strengthen and diversify international links between member countries, as well as with other nations that may form part of this community. Under this principle, this network has sought to consolidate itself over the last eight years as a space for social and academic development, for the renewed construction of links through science, innovation, technology, social and cultural transformation, and, likewise, to project the academic careers of future semioticians in the world.

This network is materialised in research proposals, academic mobility and continuous training of young people in the area of Semiotics with a

transdisciplinary perspective. We have already held three meetings of the network within the world congresses of semiotics, organised by the IASS-AIS in the cities of Buenos Aires (Argentina), Thessaloniki (Greece) and Warsaw (Poland). These meetings, recognised by the association, have been presented as the stage for the comprehensive training of all researchers who develop their academic career within the framework of Semiotic Studies. The aim is to strengthen the scientific vocation of young researchers and to stimulate the linking of new generations for the growth and expansion of semiotics as a theoretical perspective and methodological approach in contemporary science.

We invite you to enjoy this first series of books, in which you will find the future of semiotics in the hands of the Early Career Researchers ECR of the International Association for Semiotic Studies IASS-AIS.

PROF. JORGE EDUARDO URUEÑA LÓPEZ, PH. D.

Professor of Faculty of Education,
Pontificia Universidad Javeriana Colombia

Member of the Executive Committee for Colombia
of the International Association for Semiotic Studies IASS-AIS

PROLOGUE

CONTEMPORARY SEMIOTICS: RESEARCH IN FIVE LANGUAGES. FIVE BOOKS IN FIVE LANGUAGES

The Early Career Researchers (ECRs) program

This program was conceived and implemented at the initiative of the International Association for Semiotic Studies (IASS-AIS), during the presidency of Paul Copley, and supervised by the previous Board of the Association. The Vice-President for the Americas, Neyla Pardo, conceived and oversaw all aspects of phase one of the program with logistical and financial support from the Pontificia Universidad Javeriana in Bogotá. *Early Career Researchers* are identified on the basis of international criteria: they are investigators less than 40 years old, and they are not professors or tenured investigators, they are students of postdoctoral training, who defend their studies for less than 6 years or students of doctoral studies.

The thematic framework of the program is as broad as possible, and concerns the social, political, economic, artistic and educational phenomena of contemporary societies throughout the world. The aim is to show what contribution semiotics can make and what impetus it can give to fields of knowledge that deal with social, cultural, political and ecological challenges. Semiotics contributes its explanatory models and methods to all the major contemporary issues.

In addition, the program aims to strengthen and diversify international links between member countries, as well as with other nations that could become part of the IASS-AIS community, without any exclusivity. In accordance with this principle, the actions of the “Early Career Researchers”, who represent the future of semiotics in the world, must contribute to creating and strengthening links with universities and research entities throughout the world, in an approach that is intended to be inclusive.

Finally, from the point of view of the IASS-AIS, the program also has a pragmatic objective, which is to enable researchers at the start of their careers to confront academic and scientific situations at the highest level - seminars, conferences and congresses, publications - subject to international standards of excellence.

The five books in five languages

Thanks to the efforts of Colombian institutions, the ECRS program organized a considerable number of conferences, courses, ‘conversations’ and scientific papers. Here, we present only the most visible and lasting part of these operations, entitled “Contemporary semiotics: research in five languages and five books. Editorial series project”.

The main objective of this editorial series is the conception, production and dissemination of current research and epistemic discussions carried out by the ECRS network as members of the IASS-AIS. The languages chosen are not the official IASS-AIS languages, but those selected by the editorial committee: Spanish, Portuguese, Chinese, Italian and English. For the editorial committee, “it is a priority to disseminate knowledge in each of the languages in which this semiotic research is conducted as a way of questioning the production of knowledge in the traditional hegemonic languages”.

Jorge Eduardo Urueña Lopez is the wise pilot and efficient coordinator of this series of books and of its editorial committee.

The five books in five languages are:

- *Pluriversos en la semiótica Latinoamericana*
- *Semiótica da Comunicação: novas perspectivas sobre mídia e linguagens*
- 艺术产业符号学：在技术、政治与感知之间
- *Semiotica, vita, ecologia e sostenibilità: Critici biosemiotici*
- *Remodelling narrative spaces: Semiotic insights*

The titles proposed, as well as the works, clearly show that it is not possible to encompass, even in five books, all the relevant semiotic research at the international level, and that it is already essential to propose a framework for a more effective project that will be able to promote the most promising research throughout the world. The objective, defined as “questioning the production of knowledge in traditional hegemonic languages”, is in fact limited to excluding Korean, German, Arabic, French and Russian, among others. But it is not only the languages that are excluded from the five books, because the young researchers whose mother or working language is excluded are themselves almost all absent from these five books, even though they could have expressed themselves or been translated into one of the five languages selected.

The five books cover a very wide range of semiotic issues: marginalized cultures, communication with the future, the industrial arts, biosemiotics and ecology, and new narrative spaces of meaning, each adopting a specific strategy.

1. The book in Spanish, entitled *Pluriversos en la semiótica latinoamericana*, deals with identities and social groups that are victims of discrimination and the multifaceted resistance they put up against them; the field of study is limited to Latin America, and the majority of the authors are based in Colombian universities, with others in Mexico. The issues of discrimination, domination and resistance encourage the adoption of identity-based and militant positions. The underlying semiotic processes, nourished by contemporary anthropological research, imply perspectivist and even multi-perspectivist approaches.
2. The book in Portuguese presents a body of research in the field of communication, characterized as *new perspectives on media and languages*. It is intended as a panorama of current work by young Brazilian researchers, the vast majority of whom being based in Sao Paulo. It is hoped that readers from the rest of

the world will be able to transpose these new perspectives into their own cultural fields.

3. The book in Chinese, devoted to the “Industrial Arts”, is particularly homogeneous and innovative, in its subjects and in its approaches, because the industrialization of the arts questions the very foundations of creation. In addition, an effort has been made to diversify the authors: not all are Chinese, and those who are not have been translated into Chinese, and they are located in several countries around the world: this is proof that all young researchers, whatever their mother or working language, could participate in each of the books in the series.
4. The book in Italian covers an already well-established scientific trend in the field of biosemiotics: the extension to everything to do with the living world. Approaches already developed elsewhere, in other theoretical frameworks, such as enaction, distributed cognition, the actor-network, internaturality, theories and methods that advocate the embodiment of instances, actants and enunciations, long taken into account by semiotics of all theoretical horizons, are here reconfigured and well-integrated into biosemiotics. Most of the authors are Italian, while others are from Latin America, particularly Venezuela and Argentina. Here too, authors whose mother tongue or working language is not Italian have been able to contribute to this work in Italian.
5. The book in English is the only one to have chosen a theme that is not already institutionalized, fixed in a well-identified field, or emanating from a regional socio-cultural situation: it is devoted to a contemporary semiotic problem, that of the reconfiguration of spaces of presentation and representation in today’s cultures and technologies. The result is a challenge that has necessitated a great deal of reorganization to provide authors with new points of reference. But it is also a great success: each chapter poses at least one of the semiotic problems raised by the reconfiguration of contemporary spaces.

This book does not indicate the institutions or countries to which the authors belong.

The series is multi-faceted in many ways: multidisciplinary, multi-theoretical, multicultural and multilingual. After analyzing each of the books, we feel that the multi-theoretical and multilingual aspects give the series its strongest structure. The plurality of theories would lead us to propose hybrid models. Young researchers are recognized as having the virtue of bringing together and homogenizing different conceptions. The methodological challenge is considerable, as the juxtaposition of theories must give rise to new coherent methods adapted to the object of analysis. Semiotic analysis achieves its primary objective - the intelligibility of phenomena, the dimension of discovery through heuristic results - when it uses coherent models and descriptive tools.

For an International Association of Semiotic Studies, multilingualism is a solution that is perfectly consistent with its purpose, in a field of research where translation between languages occupies a central place, whatever the theoretical and methodological point of view adopted. But there are two ways of practicing multilingualism: 1) all the authors of a book write in a single language, including in translation, and it is the series of works, not each book, that is multilingual: the reader of each book may know only one language, that of each book; and 2) all the authors write their contribution in their mother language or the working language of their choice, chosen from a list drawn up collectively, and it is each book that becomes multilingual; in this case, everyone is expected to read and understand the languages of the others.

Clearly, the first solution is not conducive to multilingualism and intercultural dialogue, and leads to exclusions that are difficult to justify. The second solution also has its disadvantages, of course, but these are those of the Babel myth, which eminent semioticians, Lotman and Fabbri in particular, have shown can be turned into advantages in terms of the production of new meanings.

Phase 2 of the ECRS project will build on the very encouraging results of phase 1. In order to reinforce the ECRS project's stated aim of

creating a vast global network of exchanges, it will aim, as an extension of this editorial series, to promote dynamic, inclusive and meaning-making multilingualism, and will endeavour to address not only semioticians, but researchers and professionals from other disciplines and fields of investigation.

JACQUES FONTANILLE

President of the IASS-AIS, University of Limoges, France

TIZIANA MIGLIORE

Segretario Generale IASS-AIS, Università di Urbino Carlo Bo, Italia

PROLOGUE

SÉMIOTIQUE CONTEMPORAINE: RECHERCHE EN CINQ LANGUES. CINQ LIVRES EN CINQ LANGUES

Le programme Chercheurs en *début de carrière* (ECRS)¹

Ce programme a été conçu et mis en œuvre à l'initiative de l'International Association for Semiotic Studies (IASS-AIS), pendant la Présidence de Paul Cobley, et supervisé par le précédent Bureau de l'Association. La vice-présidente pour l'Amérique, Neyla Pardo, a conçu et porté toute la réalisation de la première phase du programme, avec le soutien logistique et financier de la Pontifica Universidad Javeriana de Bogota. Les *Chercheurs en début de carrière* sont identifiés sur la base de critères internationaux : ce sont des chercheurs qui ont moins de 40 ans et ne sont pas des enseignants-chercheurs titulaires, soit des postdoctorants qui ont soutenu leur thèse depuis moins de 6 ans, soit des doctorants.

Le cadre thématique du programme est le plus large possible, et concerne les phénomènes sociaux, politiques, économiques, artistiques et éducatifs des sociétés contemporaines dans le monde entier. L'objectif est de montrer quel peut être l'apport et l'impulsion de la sémiotique à l'égard des domaines de la connaissance qui traitent des défis sociaux, culturels, politiques et écologiques. Dans toutes les grandes questions contemporaines, la sémiotique apporte ses modèles d'explication et ses méthodes.

En outre, le programme vise à renforcer et à diversifier les liens internationaux entre les pays membres, ainsi qu'avec d'autres nations qui pourraient faire partie de la communauté de la IASS-AIS, sans aucune exclusive. En vertu de ce principe, les actions des « Chercheurs en début de carrière », qui représentent l'avenir de la sémiotique dans le monde, doivent contribuer à créer et fortifier des liens avec des universités et des entités de recherche du monde entier, dans une démarche qui se veut inclusive.

1 Sigle du programme Early Career Researchers

Enfin, du point de vue de l'IASS-AIS, le programme a aussi un objectif pragmatique, qui consiste à permettre aux chercheurs en début de carrière de se confronter à des situations académiques et scientifiques au plus haut niveau d'exigence – séminaires, conférences et congrès, publications – soumises à des normes d'excellence de niveau international.

Les cinq livres en cinq langues

Le programme ECRS a organisé, grâce aux efforts des institutions colombiennes, un nombre considérable de conférences, d'enseignements, de « conversations » et de communications scientifiques. Ici même, nous ne présentons que la partie la plus visible et la plus durable de ces opérations, intitulée : « Sémiotique contemporaine : la recherche en cinq langues et cinq livres. Projet de série éditoriale ».

L'objectif principal de cette série éditoriale est la conception, la production et la diffusion des recherches actuelles et des discussions épistémiques menées par le réseau ECRS en tant que membres de l'IASS-AIS. Les langues choisies ne sont pas celles officielles de l'IASS-AIS, mais celles qui ont été retenues par le comité éditorial : espagnol, portugais, chinois, italien, anglais. Pour le comité éditorial, en effet, « il est prioritaire de diffuser les connaissances dans chacune des langues dans lesquelles cette recherche sémiotique est menée comme une manière de questionner la production de connaissances dans les langues hégémoniques traditionnelles ».

Jorge Eduardo Urueña Lopez a été le pilote avisé et le coordinateur efficace de cette série de livres et de son comité éditorial.

Les cinq livres en cinq langues sont :

- *Pluriversos en la semiótica latinoamericana*
- *Semiótica da comunicação: Novas perspectivas sobre mídia e linguagens*
- 艺术产业符号学：在技术、政治与感知之间
- *Semiotica, vita, ecologia e sostenibilità: Critici biosemiotici*
- *Remodelling narrative spaces: Semiotic Insights*

Les titres proposés, ainsi que les ouvrages, montrent à l'évidence qu'il n'est pas possible d'embrasser, même en cinq livres, la totalité des recherches sémiotiques pertinentes au niveau international, et qu'il est déjà essentiel de proposer un cadre pour un projet plus efficace qui saura valoriser partout dans le monde les recherches les plus prometteuses. L'objectif défini comme « questionner la production de connaissances dans les langues hégémoniques traditionnelles », se limite de fait à exclure notamment le coréen, l'allemand, l'arabe, le français, le russe, parmi d'autres. Mais ce ne sont pas seulement les langues qui sont exclues des cinq livres, car les jeunes chercheurs dont la langue maternelle ou de travail est exclue sont eux-mêmes presque tous absents de ces cinq livres, alors qu'ils auraient pu s'exprimer ou être traduits dans l'une des cinq langues retenues.

Les cinq livres couvrent un très large champ de problématiques sémiotiques : les cultures marginalisées, la communication au futur, les arts industriels, la biosémiotique et l'écologie, les nouveaux espaces narratifs de signification, en adoptant chacun une stratégie spécifique.

1. Le livre en espagnol, sous le libellé «*Pluriversos en la semiótica latinoamericana*», traite des identités et des groupes sociaux victimes de discriminations et de la résistance multiforme qu'ils leur opposent ; le champ d'étude est circonscrit à l'Amérique Latine, et les auteurs sont en majorité implantés dans les universités colombiennes, les autres étant situés au Mexique. Les questions de discriminations, de domination et de résistance incitent à adopter des positions identitaires et militantes. Les processus sémiotiques sous-jacents, nourris des recherches anthropologiques contemporaines, impliqueraient des approches perspectivistes, voire multi-perspectivistes.
2. Le livre en portugais présente un ensemble de recherches dans le domaine de la communication, caractérisées comme « *de nouvelles perspectives sur les médias et les langages* ». L'ensemble est conçu comme un panorama des travaux actuels de jeunes chercheurs brésiliens qui sont en très grande majorité implantés à Sao Paulo. Il suppose que les lecteurs du reste du monde

soient en mesure de transposer ces nouvelles perspectives dans leur propre champ culturel.

3. Le livre en chinois, consacré aux « Arts industriels », est particulièrement homogène et innovant, dans ses objets et dans ses approches, car l'industrialisation des arts interroge les fondements mêmes de la création. En outre un effort de diversification des auteurs doit être souligné : tous ne sont pas chinois, et ceux qui ne le sont pas ont bénéficié d'une traduction en chinois, et ils sont situés dans plusieurs pays du monde : c'est bien la preuve que tous les jeunes chercheurs, quelle que soit leur langue maternelle ou de travail, pourraient participer à chacun des livres de la série.
4. Le livre en italien couvre une tendance scientifique déjà bien établie dans le domaine de la biosémiotique : l'extension à tout ce qui a trait au monde vivant. Des approches déjà développées par ailleurs, dans d'autres cadres théoriques, comme l'énaction, la cognition distribuée, l'acteur-réseau, l'internaturalité, les théories et méthodes qui prônent l'incarnation des instances, des actants et des énonciations, depuis longtemps prises en compte par les sémiotiques de tous horizons théoriques, sont ici reconfigurées et bien intégrées à la biosémiotique. Les auteurs sont en majorité italiens, et les autres sont situés en Amérique Latine, notamment au Vénézuëla et en Argentine. Là aussi, des auteurs dont la langue maternelle ou de travail n'est pas l'italien, ont pu contribuer à cet ouvrage en italien.
5. Le livre en anglais est le seul qui a choisi un thème qui n'est pas déjà institutionnalisé, fixé dans un domaine bien identifié, ou émanant d'une situation socio-culturelle régionale : il est consacré à un problème sémiotique contemporain, celui de la reconfiguration des espaces de présentation et de représentation dans les cultures et technologies d'aujourd'hui. Il en résulte une difficulté qui a imposé bien des réaménagements pour

proposer aux auteurs de nouveaux repères. Mais il en résulte aussi un beau succès : chaque chapitre pose au moins l'un des problèmes sémiotiques soulevés par la reconfiguration des espaces contemporains. Ce livre n'indique ni les institutions ni les pays de rattachement des auteurs.

La série éditoriale est multiple à maints égards : multidisciplinaire, multi-théorique, multiculturelle, et multilinguistique. Après analyse de chacun des livres, les aspects multi-théorique et multilinguistique nous semblent ceux qui structurent le plus fortement la série. La pluralité des théories conduirait à proposer des modèles hybrides. On reconnaît aux jeunes chercheurs la vertu de réunir et homogénéiser des conceptions différentes. Le défi méthodologique est considérable, car il faut que la juxtaposition des théories engendre de nouvelles méthodes cohérentes et adaptées à l'objet d'analyse. En effet, l'analyse sémiotique atteint son objectif premier – l'intelligibilité des phénomènes, la dimension de la découverte à travers les résultats heuristiques – lorsqu'elle utilise des modèles et des outils descriptifs cohérents.

Le multilinguisme, pour une Association Internationale de Sémiotique, est une solution parfaitement cohérente avec son objet, dans un champ de recherches où la traduction entre langages occupe une place centrale, quel que ce soit le point de vue théorique et méthodologique adopté. Mais il y a deux façons de pratiquer le multilinguisme : 1) tous les auteurs d'un livre écrivent dans une seule langue, y compris avec traduction, et c'est la série d'ouvrages, et non le livre, qui est multilingue : le lecteur de chaque livre peut ne connaître qu'une seule langue, celle de chaque livre; et 2) tous les auteurs écrivent leur contribution dans leur langue maternelle ou la langue de travail de leur choix, choisie dans une liste établie collectivement, et c'est chaque livre qui devient multilingue ; dans ce cas, chacun est censé lire et comprendre les langues des autres.

Il est bien clair que la première solution ne favorise pas le multilinguisme et le dialogue interculturel, et qu'elle aboutit à des exclusions difficiles à justifier. La deuxième solution a bien sûr également des inconvénients, mais ce sont ceux du mythe de Babel, dont d'éminents sémioticiens,

Lotman et Fabbri en particulier, ont montré qu'ils pouvaient se transformer en avantages en termes de production de nouvelles significations.

La phase 2 du projet ECRS tirera les enseignements des résultats très encourageants de la phase 1. Pour renforcer l'objectif déclaré du projet ECRS, celui d'un vaste réseau mondial d'échanges, elle visera, en prolongement de cette série éditoriale, à promouvoir un multilinguisme dynamique, inclusif et producteur de sens, et s'efforcera de s'adresser non seulement aux sémioticiens, mais aux chercheurs et professionnels d'autres disciplines et d'autres domaines d'investigation.

JACQUES FONTANILLE

Président de l'iass-ais, Université de Limoges, France

TIZIANA MIGLIORE

Secrétaire Générale de l'iass-ais Université de Urbino Carlo Bo, Italie

PRESENTATION

SIGNS OF IMAGES IMAGINED AS IMAGINARY REALITIES

Semiotic insights into narrative spaces and times challenge us to look into the mirror of complexity systems that we embody as humans in our lived world. As Ernst Cassirer reminds us, these systems are chiefly remembered as cultural paradigms: Language, Art, Myth, and Religion. These paradigms gain their complexity when the semiotic logic of each is communicated from one person to another, or merely in our own memory. By the very process of communication, an embodied voice is created simultaneously as expression and perception, later to be presented to ourself or to others as a representation. Where and when this voice travels is the theme of the present book you are about to read. The voice travels in Space because it is observed to move; it travels in Time because it is felt inside as coming from outside. This felt movement of voice is the lived condition of the Human.

For the ancient Greeks the voice [Gērys] was the mirror of the actual world lived as the real world—a conscious idea [eidos] or concept of Nature experienced as Culture. In Voice, they gave us our foundational understanding of the lived-world of being human with others in a shared environment. They had four semiotic models for this task: 1) Mýthos—the voice inside the mind; 2) Lógos—the voice outside the mind; 3) Mystos—the voice of silence; and, 4) Magikos—the voice of practice. These are more familiar to the modern mind as, respectively, the phenomenology of Thinking, Speaking, Listening, and Acting.

When these voices engage dialogue, narrative is born. It is Roman Jakobson who provides the map to guide our investigations. His chiasmatic account of an AddresseeR who encodes, who expresses a perception is mirrored by an AddresseeE who decodes, who perceives an expression. Both persons thereby share a context for a message that was coded as means of human contact. The Greek complexity arrives when we realize with Jakobson that the AddresseeR and AddresseeE functions simultaneously occur both in one person (mind and body) and in another person (mind and

body). In short, there is a mirror (actual / real) of a mirror (ideal / surreal). This quadratic complexity system of analogy accounts for all communication from inside one mind to another via language, art, myth, and religion.

Now, if you dare to separate the Actual—Real from the Ideal—Surreal, you invent narrative and you get to choose one (autobiography), two (public narrative), three (personal narrative), or four (biography) voices to signify meaning. We now arrive at the problematic for the book you are going to encounter. At issue is the advance of technology in adjusting, altering, and mediating Space and Time. The process renders the point of Contact as an issue of Context because you are unsure of the Code controlling your Message (the word read, the button pushed, the sound heard, smell noticed).

Perhaps it will help to substitute a couple of words here since you are reading this. Along with the Actual—Real attach the words Game—Play. If you can make this transition, you might try one more level of substitution in the narrative code: Virtual—Mediated—plus—Game—Play. You will read several authors—heard several narrative voices—in the essay that follow. The authors give us a clear set of guidelines that are thematic for our understanding the complexity of the communication media afforded by current technology, both analogue and digital. The chiasmatic boundaries of technology are explored in detail for us to grasp the quadrature dynamics of combined reverses (“mirror effect”) and inverses (“zebra effect”) hidden is the reductive concept of “frame”, much less “narrator”.

One last observation about our authors, they have all utilized a version of semiotic phenomenology as a method (Communicology). They follow the foundational method of Edmund Husserl (and his explicators) to approach the subject matter of each essay: 1) Description; 2) Reduction; 3) Interpretation. Description is “bracketing out” previous conceptions that control judgment (making the familiar strange). Reduction is “imaginative free variation” of sufficient judgments (making the strange familiar). Interpretation is “definition” of necessary judgments (value choices).

It may also be helpful to know that Jacques Lacan’s semiotic model of Real—Imaginary—Symbolic is a phenomenological variation in which the quadratic “Actual—Real + Ideal—Surreal” is made triadic by

assigning the “actual” to “normal” and the “real—ideal [imaginary]—surreal [symbolic]” is the psychiatric condition of the “abnormal”. Other authors in the French tradition, e.g., Derrida, Foucault, Merleau-Ponty, like Lacan, rely on the Scholastic medieval semiotic quadrature of factual evidence: (1) *Capta* (“what is taken”; perception); (2) *Verba* (“what is said”; expression); (3) *Data* (what is given”; presentation); and, (4) *Acta* (what is done”; representation).

RICHARD L. LANIGAN

Executive Director & Laureate Fellow
International Communicology Institute, Washington, USA

INTRODUCTION

Damien Tomaselli

This book is composed of chapters based on a call for emerging theories on the topic of semiotics, space and narrative. This book is one of five in the International Association for Semiotic Studies series IASS-AIS, canvassing five languages between them. This English version originated with a call for papers anchored with Mikhail Bakhtin's concept of 'chronotope' and its intersection with current and emergent narrative forms. The original call was poorly received, with only a single submission. After some deliberation the call was reworked to *Remodelling narrative spaces: Semiotic insights*. While the original call was explicitly premised on the emergence of technology and story, this reworked call was similar yet more accessible to any and all forms of storytelling intersecting with semiotics. Bakhtin's concept of chronotope, which translates to 'time-space' Bakhtin (1981), has been reframed from its origin concerned with the artistic organisation of space and time within the novel to other more contemporary forms of storytelling. The dimensionality of space and relations of time and story have since forged into exhibition areas extending beyond the literary and various forms of the visual moving image. This volume encapsulates eight discussions on temporal and spatial synthesis spaces in the meaningful symbiosis of space, time and narrative.

In the first chapter, Massimo Beato introduces the space as a character driving the narrative action rather than just acting as a background. Massimo concentrates on the cognitive ecologies of immersive theatre. Beato's submissions focus on the spectator's role as a user, which requires a reconfiguration of theatre space. Beato discusses issues of reframing that may be considered in production pedagogy. Beato examines the theatre production *The Burnt City*, which was performed by the British theatre company Punchdrunk, through the lens of how cognitive ecologies engage with theatre space and the role of the audience. Beato concludes with an insight into how theatre practitioners may leverage these.

In the second chapter, Alex Ma, Haoran Sun, and Hong Chen discusses semiotic controversy when referring to the concept of ‘film’ through technological development. The term film instigates a technical but artistic medium that is enabled and driven by technological innovation, thus binding abstract and material elements into a single movement. As technology becomes incrementally innovative, the term ‘film’ consistently navigates issues of identity transference. As technology shifts, so does the artistic form of what we understand as ‘film’, constantly blurring boundaries of how semiotic space is configured inside and outside the frame. Ma discusses filmic identity in line with the need to consider a more plastic conceptual framework for film history and orient the concept towards future identities.

In the third chapter, the above discussions of analogy and detachment are inverted as Gloria Inés Ocampo Ramírez considers the detachment between objects and representations. Ramírez extends the enquiry originally proposed by Magritte, where the analogy works as semiosis between words and images moves, specially when the image is product from the conjunction between similarity and resemblance. Ramírez makes the case that similarity and resemblance are two contextually complex and, in a sense, antagonistic forms of representation. Ramírez applies these ideas to the photographic work of Duane Michals, who would incorporate calligraphy into his job following the passing of his father.

In the fourth chapter, Damien Tomaselli introduces the temporal rhetoric characteristics of immersive 3-dimensional media as an affordance around the studies of the 3-dimensional chronotope. The semiotic functionality of depth and density manifests in tandem with dramatic structures of rhythm and pacing. Materially speaking, this infuses the spacetime dimensionality of spatial density as a genre within itself, which Tomaselli refers to as the ‘temporal index’, rendering the semiotic with the aesthetics of space. Symbolism is not only object-related but also forms meaning through the properties of its material structure. Examples of compression and dilation of the temporal index are discussed concerning 3D film, virtual and augmented reality, including the self-authored augmented reality enhanced cinematic comic *Children of Xaphan: Genesis untold*.

In the fifth chapter, Bianca Suárez-Puerta explores how a 360° expanded narrative uses semiotic tools to highlight the single-use plastic pollution crisis. By tracing the plastic's journey from the city to the shores of Colombia, the analysis applies Greimas' actantial structure to unpack the roles and conflicts between sustainable and consumerist practices. It incorporates Jenkins' transmedia narrative theory, emphasising how immersive experiences allow for multiple perspectives, fostering an emotional connection with the issue. Foucault's heterotopias are applied to understand how spaces like the city, river, and coast become symbolic environments, while Guattari's eco-philosophy links the crisis's physical, social, and subjective aspects. Murray's work on digital storytelling underscores how immersive experiences promote active user participation in meaning-making, which is essential for addressing sustainability. Ultimately, the semiotic analysis shows that 360° experiences are potent tools for ecological awareness, encouraging reflection on individual responsibility and environmental impact.

In the sixth chapter, Pablo Molina applies the discourse of temporality towards the ludic and semiotic transmission governed by rules of play in the instance of the video game. Molina discusses the relationship between playfulness, space, and performance, referencing video game instances. In analysing this play space, Molina invokes Juri Lotman's discussions of the semiosphere and precisely the concept of "specular dialogue", which Molina proposes is critical to understanding the semiotic process of video games. Molina applies the notions of specular symmetry to the games *Detroit: Become Human* (Quantic Dream, 2018), *Transference* (SpectreVision and Ubisoft Montreal, 2018) and *Wonderbook: Book of spells* (SCE London Studio, 2012). The play space Molina discusses introduces discourse to the dimensionality of augmented reality, which aligns with Damien Tomaselli's discussion of the semiotics of depth and density and their interrelatedness with the diegetic materiality of the fictional space.

In a double billing, in the seventh chapter, Tomaselli draws on the notion of a temporal index through narrative and ludic space confrontations. Tomaselli's additional chapter introduces concepts of orthogenesis into narratology, with a focus on emerging spaces, with shades of Molina's

discussions above, in that the 'play space' instigates semiotic boundaries which manifest in the video game genre. Tomaselli steers this discussion towards integrating narrative as incrementally enabled through technological development, concretising previous narrative and ludic play space trends with an underlying evolutionary discourse related to the axis of ludic-narrative trends. These issues of othering and symbiosis encircle discussions of narrativised space.

In the eighth chapter, the spatial reoccurrence is also the theme of Alec Kozicki's cinematic research. While also concentrating on the cinematic, Kozicki extends the discussion of space, time and genre to investigate cinematic and interactive visual media structures. Kozicki frames his argument through the cycle of beginning and ending cycles, which invokes the metaphor of the Orubous, an ancient figure for infinity. Kozicki states that Kristeva's notion of intertextuality is central to a film's textual resonance, interpolating the reader, or as is the case in the movie, the audience, as engaged in a textual process of reading and writing when consuming meaning. These spacetime relations draw prominently on Kristeva's notion of intertextuality in the incidence of interactive film, which pivots moments of structuralism onto the audience as an editorial participant. As a result, the intersections of spatial and temporal codes become scattered within narrative and intertextual echelons. This chapter discusses how cyclical structures become prominent in the narrativisation process of interactive film.

We invite you to recognise how remodelling narrative spaces shapes the new semiotic insights of our times. Welcome, dear readers.

STORYTELLING WITHIN THE IMMERSIVE THEATRE: TOWARDS A CONCEPT OF USERLY NARRATIVES

Massimo Roberto Beato

I shall illustrate the extent to which immersive theatre practices involve a radically different conception of narrative and montage unlike the stage/auditorium theatrical forms. These practices largely refer to performances that use installations and extended environments with mobile audiences through radically different modes of spectatorships compared to, for example, frontal spectating modes.

I shall outline to what extent immersive theatre experiences entail a reconfiguration of the categories of space, time and action if compared to those one is usually accustomed as a spectator seated in the audience. To describe these unprecedented dynamics of narrating and of interpreting (in terms of meaning creation) the immersive experience, I shall refer to *The Burnt City* performed by the British theatre company Punchdrunk as a case study. What is at issue here is the enclosure of the story, which is no longer (monstrated) within a defined frame, but has to be continually fixed and (re)framed by the spectator according to a process that is analogous to the one engaged in when, for example, navigating via internet. In other words, there is a form of interactive participatory storytelling that can be defined as userly narratives, which are forms of environmental storytelling.

Introduction

Over a long time, scholars' studies on the theatrical phenomenon have been profoundly biased by an underlying ideology, according to which the spectator had a passive receiver role in partaking in the performance, that was mostly conceived within an objectivist communicational logic (De Marinis, 1986). In semiotics, this (fallacious) premise led academics to regard the theatrical relationship between actor and spectator in terms of a "neutral" exchange of information and nothing more. On the contrary, it is now widely attested, in the research and studies of the last thirty years

(De Marinis, 2007, 2008), that the theatrical phenomenon is essentially to be traced back to its pragmatic dimension as a “theatrical fact”, which means not as an ex-post product, but as an array of production and reception processes encompassing a performatic practice¹. Likewise, the performative turn (Fischer-Lichte, 2008) has broadly highlighted both the extent to which the theatrical phenomenon is foremost the emergent outcome of the co-presence relationship between actor and spectator, and the way in which the latter, who has been overlooked or taken for granted too often in theatre studies, is effectively a co-author of the performance and plays an “active” role².

Nevertheless, the actor-spectator relationship is by no means articulated according to the same parameters and stable valorizations over time, on the contrary “the physical encounter between actors and spectators is culturally determined” (Pais, 2015, p. 123). The investigation of this relationship must therefore account for divergences, deformations, perceptual and cognitive reframing that each spectator makes during a theatre performance. The traces that a performance may have left in one’s experience storage become an opportunity to study not only the performance as such, but also the dynamics underlying the study of performances in the past (Sofia, 2013, pp. 24-25).

Hence, as far as the spectator is concerned, the theatrical phenomenon acquires the features of an experience, “that by its own nature is a transient, momentarily, ever-present, self-referential, and intersensorial experience” (Meerzon, 2011, p. 258), regardless of the theatrical forms and modalities involved. In other words, the spectator’s activity in theatrical practices should be investigated by considering not only the perceptual

1 On the one hand, the term “performatic” – as adopted by Fabrizio Deriu’s dynamic arts theory (2012) – is hereby employed to emphasize the inherent aesthetic dimension of the performative event, as compared to the complexity of activities, behaviours and genres circulating in the overall ensemble of the continuum of performative activities. Diana Taylor (2003) proposed the technical use of *performatic* in Performance Studies vocabulary. On the other hand, the term “practice” refers to a chain of actions extracted by the semiotician from the continuum of performative sociocultural activities and situations.

2 Especially in terms of the interpretation/reception and (ap)perception of the performance.

dynamics, but above all the cultural, affective and mnestic conditioning convoked (convocation) by the subjects engaged in the act of spectating. In this scenario, the audience's engagement with the performance must therefore be approached according to the many socio-semiotic variables at issue: production conventions, spectator skills, etc. Semiotics, therefore, is required to employ new analytical categories in order to be effective in comprehending such instability of the object of analysis (or perhaps we should say such "openness"). Moreover, conceiving the theatrical phenomenon in terms of experience entails the entanglement of the bodily dimension, since the spectator perceives, experiences, understands and interprets the performance with his or her body and within his or her body.

In this essay, I shall illustrate the extent to which immersive theatre practices involve a radically different conception of narrative and montage with respect to the stage/auditorium theatrical forms. In fact, these performances challenge the normative framework of seeing and of the act of narrating. Furthermore, most of them foster the shifting of the spectator's response from comprehension to apprehension³, dislodging dominant modes of subjectivity. New strategies and models of partaking in the event are demanded.

These kinds of practices would largely refer to performances that use installations and extended environments with mobile audiences and that invite *productive participation* (Alston, 2016) through radically different modes of spectatorship as compared to, for example, frontal spectating modes. Delocalization, as opposed to venues usually delegated to theatrical practices, is certainly a first and important element of discontinuity. I shall outline to what extent immersive theatre experiences entail a reconfiguration of the categories of space, time and action if compared to those one is usually accustomed as a spectator seated in the audience. In fact, immersive theatres are conceived foremost from a specific space being arranged and organized to create a possible dramatic world within which to place the spectator. To describe these unprecedented dynamics of narrating and

3 This term refers to a model of consciousness in which nothing is affirmed or denied of the object in question, but the mind is merely aware of ("seizes") it (*Encyclopedia Britannica*, vol. 2 (11th ed.), Cambridge University Press, pp. 227-228).

of interpreting (in terms of meaning creation) the immersive experience, I shall refer to *The Burnt City* performed by the British theatre company Punchdrunk as a case study.

Methodologically, the attempt is to inscribe the results of this investigation within a cognitive sociosemiotic framework, proposing a dialogue with Cognitive Ecologies. This approach, which is basically ethnosemiotic, has many similarities with that of the SPAR tradition – Spectator-Participation-as-Research – (Heddon et al., 2012) “a methodology in which writers draw on first-person accounts of their own experience as an audience alongside more theoretical writings” (Biggin, 2017, p. 3). The aim of this essay is to suggest new tools to add to the “semiotician’s toolbox”, that is to say, new categories and operational concepts required for the analysis of these new forms of theatre narratives that demand, in turn, new forms of semiotics. However, before proceeding to the core of this contribution, since these theatrical practices engage in specific storytelling strategies, in the next paragraph I briefly illustrate in a semiotic perspective the storytelling form of expression inherent in them, trying to highlight the similarities with storytelling in digital media. I shall then define some operational concepts such as interactivity, immersion and participation (§ 2) before examining the case study (§ 4) through which I shall outline to what extent interactive storytelling strategies are embedded in the design of immersive theatre environment and what challenges they face the audience in terms of meaning creation.

AN INTERACTIVE (AND PARTICIPATORY) STORYTELLING

Storytelling means constructing meaning, a practice all the more necessary in a cultural context such as the contemporary one that needs operational tools for that reflexivity required to understand the dynamics and changes in social flows, the logics of production and consumption, the new forms of relations between people. As Marina Grishakova and Marie-Laure Ryan (2010) point out,

The “digital turn” in the humanities [...] has not only directed attention to what has come to be known as “new media,” it has also, just as importantly,

led to a reassessment of the configuring impact of older media for thought, narrative and the processing of information (a processing which would be called “reading” in an approach that privileges written language). (p. 1)

This turn entailed, among other things, a change in the storytelling modes that even involved a few theatrical forms as for example the so-called immersive theatre. When attempting to outline the differences between the act of narrating in literature and in theatre, André Gaudreault (2009) adopts the term *monstration*. The term stems from the root *monstrer* in French, which in turn derives from *monstrare* in Latin (to show). In fact, if the narrator’s fundamental role lies in conveying a story through a verbal account, the monstrator shows a story, presents it to an audience. “The monstrator denotes the storytelling agent behind a visual presentation of a story, the parallel agent to the textual narrator” (p. 22). There is no narration as one is dealing with a representation. Precisely this is what occurs in the cinema and theatre. Thus, by avoiding the term narrator, Gaudreault stresses the difference in medium and mode of this form of storytelling. However, whilst outlining a theory of *monstration*, he refers – without declaring it – to a specific form of theatre, that of the stage/auditorium, although this is not the only form in which the theatrical phenomenon can occur, but rather one among many.

In Gaudreault’s terms, representation “consists in playing out a fiction on a stage, whereas narration is the action of recounting that same fiction”. Accordingly, theatre fiction “is not recounted by an intermediary, the narrator, but is displayed directly, in the language of the theatre: through decor, lighting, sound, gestures” (Gaudreault, 2009, p. 23). In fact, the theatrical phenomenon cannot be related only to the visual dimension. Representation, in turn, engages different modes as i.e. the ones of image, gesture, speech, music, moving image, soundtrack, objects. One could affirm that theatrical phenomenon is made of an ensemble of modes (Kress 2010). However, as I shall argue in the following paragraph on immersive theatre practices, in stage/auditorium theatre forms the story unfolds in a linear mode in front of the spectator’s gaze. Conversely, in immersive ones the story is literally scattered around the space and requires the action

of the spectator to be both understood and reconstructed. Insofar as the spectator is delved into the space of the dramatic narrative, the difference lies not so much in whether a multimodal approach is required to partake in the performance – as for Gunther Kress every text is multimodal (2010: 157) – but rather in whether one is dealing with an *environmental* approach. What is at issue here is the enclosure of the story, which is no longer (monstrated) within a defined frame, but has to be continually fixed and (re)-framed⁴ by the spectator according to a process that is analogous to the one engaged in when, for example, navigating via internet. In other words, there is a form of interactive participatory storytelling.

Immersive and participatory aesthetics

Mainly in the UK, the term /immersive theatre/ usually identifies those co-participatory theatre experiences in which the traditional boundary between audience and actors is dissolved, in order to encourage a positioning of spectators within the dramatic narrative.⁵ There may be more intimate forms of performance (*intimate theatre*), such as the repertoire of Ontroerend Goed⁶, or that allow a certain distance between the spectator and the performance, such as in Slung Low⁷, sometimes relying on more coherent narratives, others more fragmented and dreamlike, as, for example, in the performances of You Me Bum Bum Train⁸. Other forms of

4 Regarding fixing and framing, refer to Kress (2010, p. 93).

5 In this essay, we shall be focusing chiefly on the phenomenon of so-called *immersive theatre* that has spread in Britain, where the Punchdrunk company is acknowledged as one of the pioneers of this theatrical form (Biggin, 2017). Therefore, we merely delve into what is known as the “participatory turn” within the Avantgarde of the later 20th century. The rise and fortune of immersive theatre can certainly also be seen as a return to the engagement procedures tried out in the 1960s and 1970s, but with some notable differences, as I shall illustrate.

6 Company located in Gent (Belgium) specializing in live interactive one-to-one experiences (<http://www.ontroerendgoed.be/home/>, last visit 29.08.2023).

7 A company based in Holbeck (West Yorkshire) specializing in large group productions in non-theatre spaces (<https://www.slunglow.org>, last visit 29.08.2023).

8 An ongoing project by Kate Bond and Morgan Lloyd for one spectator, several versions of which have been presented since 2004.

interaction mediated by the employment of technical devices are also often envisaged, such as in the performances by Janett Cardiff and George Bures, which can take place in urban spaces such as museums, galleries, parks, etc.⁹ Immersive theatres are also likely to engage spectators on a multi-sensory level, making use of exploratory experiences of space and relationships with performers, but above all they innovatively reconfigure two aspects of theatre practice: the role of the audience and the way space is used.

Before addressing immersive theatre forms, it is imperative to define what is meant (semiotically) by *immersion* and *immersivity*. As Lopes Ramos et al. (2020) point out, “Over the past decade, ‘immersive’ has become one of the most overused terms to describe theatre productions that aim to involve audiences in unconventional ways” (p. 1). Many aspects cluster around the idea of “immersion”. We might outline at least three of them:

- function and articulation of the environment (White, 2012)
- spectatorship agency (Alston, 2016)
- spectators’ co-playing alongside the actors (Nield, 2008)

According to Jason Warren (2017), whenever the average audience is asked to participate in an immersive experience, the exploration of spaces is the form of engagement with which the idea of immersion is immediately linked. As Warren puts it, the exploration theatre combines a “conventional” theatrical experience with mobile audience and considerable attention to the environment in which one moves. The aim is, precisely, to create a possible dramatic world, empowering the spectator to *literally* enter that world, to experience it and engage with the materiality of the environment itself. As a matter of fact, immersive practices attempt to build an explorable field, a lifelike atmosphere of a performance, characterized by simultaneity and ever-changing, multilevel structure responding to the choices the partaker makes in each moment (Brunetti, 2017, p. 38). Whatever happens

⁹ <https://cardiffmiller.com/walks/alter-bahnhof-video-walk/>. Further discussion of this kind of performance can be addressed in Beato (2021).

is literal to such an extent that spectators are required to *sort¹⁰* on their own from one's field of vision elements that, for example, would belong to extra-scenic factual reality in a proscenium theatre, such as emergency lights, step markers, the heads of other spectators, etc. Rather, a convergence of objective and visible spaces takes place in immersive environments. The architecture of the building (*theatrical site*), the space assigned to the staging (*stage space*) and the thresholds of distinction between the space of spectating – usually reserved for spectators – and the space of acting – usually reserved for actors – (*liminal space*) are overlapped and their relative boundaries are increasingly porous and notably opaque.¹¹ As Rose Biggin stresses (2017), immersive experiences are in relation to environment and space, and “environment and narrative are connected” to the extent that she refers to these performances “as the product of site [...] where narrative events are enacted and where interactivity takes place” (p. 178).

The actor-spectator relationship is primarily a spatial relationship (Fischer-Lichte, 1992; Ubersfeld, 1999), yet the theatrical space is the outcome of cultural conventions that not only inform the audience about one's role within the practice, but also invite one to adopt models of vision, as we shall see later. Consequently, space ought not only to be conceived as a quality of physical reality, but rather as a historical structure of experience (Ingold, 2000). Theatre buildings are thus performative environments stabilized in theatrical forms whose material features are temporally fixed in a certain place for a longer time. As Sarah Pink (2011) illustrates, what this does not mean is that as places in a theoretical sense such spaces are already there.

Whilst every theatrical form in history has been articulating the actor-spectator spatial relationship on the opposition between place of acting and place of spectating¹², the boundaries between these two places

10 That is, to “pretend not to see”.

11 The concepts of theatrical site, stage space and liminal space refer to the semiotic theory of Patrice Pavis (2003, Cap. 5).

12 Except for the medieval theatre forms from which contemporary immersive theatre would be inspired.

are shattered in the immersive theatre experiences. In other words, one overcomes the idea of a threshold between the counterfactual reality of the possible dramatic world and the factual reality of the spectators, who furthermore become *interactors*¹³ as acting subjects within the dramatic narrative. In fact, immersive theatres encourage a participatory culture “in which fans and other consumers are invited to actively participate in the creation and circulation of meaning content” (Jenkins, 2006, p. 331). New strategies and models of participating and perceiving are therefore required. First and foremost, the audience must deal with new forms of storytelling and of interpreting the events performed.

CO-PARTICIPATION AND ACCORD

Since the role the environment plays in immersive practices is more crucial than ever, as it interferes in the processes of semiotization-desemiotization (Pavis, 2003), it may be worthwhile to focus on the issue by referring, for example, to the semiotic theory suggested by Daniele Barbieri (2020). He aims to explain a dimension transcending the phenomena of interpretation as acquaintance and increase in knowledge (cognitive dimension), in order to emphasize a new dimension termed *co-participatory*, a dimension of perception and accord, of the reciprocal presence of subject and object. Consequently, one may assume that what Barbieri calls a co-participation could occur between a perceiving subject and the performative environment, and that an accord with the environment is accomplished both in the act of acting and in the act of spectating, via which the subjects involved undertake a range of transformations engendering axiologization. According to Barbieri, the accord is the general phenomenon that can describe the doing of a subject in a wide sense, whereas co-participation is an accord regarding an action in which a semiotic agent who might be revealed as a subject is involved (p. 41). For example, a dancer who follows the music

13 An interactor is a “watcher-observer-improviser-adventurer-collaborator. The name plays on the notion of spectator as role-taker in a performance event, while emphasising the possibilities for the spectator to act in close relation to performers, object and space, embracing the reciprocal action and influence that can exist as a consequence of the multiway transfer of information and activity within immersive work” (Machon, 2016, p. 39).

is a co-participant in his/her own performance and that of other dancers but is not necessarily aware of everything he/she is doing (and, therefore, is not really a subject). However, only by becoming aware of one's own co-participation, may one be or become a subject, thus manifesting "connivance". As Barbieri puts it, connivance is a cognitive phenomenon whereby the accord is attempted or willed by a subject who continuously interprets what is happening around him or her. Then, one might conceive of the body as part of a whole environment and realize that the body provides us not only with embodied knowledge and skills that one uses to interact with or within that environment, but that the body itself is simultaneously physically transformed as part of this process. As a result, I argue that such a perspective, which considers what Sarah Pink (2011) refers to as the *emplacement* paradigm, could be heuristically effective to take into account the cognitive and perceptual processes at stake in the audience's mechanism of reception and interpretation in a performatic environment. Indeed, whilst the *embodiment* paradigm implies an integration between mind and body, the emerging *emplacement* paradigm suggests the sensorial interrelation between body-mind-environment: a "focus on embodiment is insufficient to understand the complex arrangements of persons and things composing any one performance" (p. 352). To conceive of the bodies of actors and spectators within a broader ecology would allow us to regard them as organisms in relation to each other in a *performatic ecosystem*¹⁴, thus recognizing both the specificity and intensity of the place of the event, and its circumstances, and the historicization of the processes and their intertwining.¹⁵

14 Performatic practices can be interpreted as semiotic formations emerging in "cultural-cognitive ecosystems" (Hutchins, 2014; McConachie, 2015), which are open, permanent in time and space, integrating narratives, praxical competences, and habits, organized and governed according to more or less well-known modalities and dynamics, and constantly exposed to processes of competition, adaptation or modification. Ecosystems develop within the semiosphere, of which they are an integral part. For an in-depth semiotic study refer to Beato (2023).

15 Within this theoretical methodological framework, in my opinion it is therefore possible for us to conceive of the different theatrical forms as ecological systems that may or may not stabilize in models and sites. The implications of this contribute to shedding new light on the analysis of the spaces in the history of theatre, regarding both the actor's and the spectator's body. Indeed,

Referring further back to the semiotic theory of Barbieri, one can then state more generally that immersive theatre forms are conceived within an *other* space that is set up and organized to establish a possible world within which to place the spectator, so as to prompt a “co-participation effect” where an accord between the partaking subjects engaged and the (fictional) media environment¹⁶ is achieved. The conniving collusion with such an environment (*immersion*) should foster in the spectator the aesthetic experience of overcoming the threshold in which the boundaries between what is planned/counterfactual and what is aleatory/factual become so fuzzy¹⁷ that it dissolves, thus yielding in the perceiving subject an effect of immediacy, of *being-in-the-moment*, in the here-and-now of the indirect world¹⁸. Hence, one might label this effect engendered by the encounter of the partaking subject with the environment as the “immersivity effect”. This effect is somewhat akin to what has been pointed out, for example, by Alison Griffiths (2008), according to whom the term “immersion” refers to

the sensation of entering a space that immediately identifies itself as somehow separate from the world and that eschews conventional modes of spectatorship in favor of a more bodily participation in the experience, including allowing the spectator to move freely around the viewing space (although this is not a requirement). (p. 2)

As I shall examine in the case study in paragraph four, these practices usually unfold in a venue consisting of several rooms that afford a

throughout the media experience, both of them can experience space in new ways each time, as they find themselves within an ecology that is ever renewing.

16 In my view, the performatic experience is primarily a media experience, intended as a form of experience detached from the sphere of ordinary experience – although it retains some traits in common with it – that unfolds within an ecosystem in which practical skills are at stake to guide the user subjects in their relationship with the medium.

17 This term is meant to evoke that of the *fuzzy-set* suggested by Marie-Laure Ryan (in Herman, 2007, p. 28).

18 The term “indirect” refers to the reality as established by performance in the media experience (Eugeni, 2010, p. 44).

media experience extended to several places at once. Partakers are the ones who freely decide where and how to explore the environment, which is often arranged very detailed in order to also arouse voyeuristic pleasure in the spectator (Maples, 2016), independently of the actors' actions. The environment is therefore a key element in performances that aim for an immersivity effect, and for this reason it is also related to the topic of imagination. Indeed, as Montani et al. (2018) state, an *interactive imagination* is never detached from the *world-environment* in which we are immersed (p. 10). However, in order to allow the imagination its creative activity, the construction (and perception) of the atmospheres through which the spectator will wander to live his or her own experience – which promises to be subjective, individual and as such unique, or userly as I shall come to define it further on – is a must.

The question isn't whether the created world is as real as the physical world, but whether the created world is real enough for you to suspend your disbelief for a period of time. This is the same mental shift that happens when you get wrapped up in a good novel or become absorbed in playing a computer game. (Pimental & Teixeira, 1993, p. 15)

Besides, the arrangement of the environment predicts a certain kind of behaviour, but also produces in the observer of these behaviours the emergence of meaning. As a result of the freedom of exploration, there ensues the freedom of individual reconstruction of the dramatic narrative that can be understood by the partaking subjects in the order they wish, as we shall see in paragraphs four and five, since it unfolds simultaneously in each of the places of the media environment.

Narrative, plot, and discourse

Before proceeding with the analysis of the case study, in this paragraph I will briefly review some operational concepts that I will adopt later, based primarily on the studies of Monica Fludernick (1996; 2005; 2009), David Herman (2005; 2007; 2009), Guido Ferraro (2015), and Gianfranco Marrone (2022). Many narratological studies do not always refer unambiguously to

concepts such as narrative, plot, story, and discourse. For instance, as stated by H. Porter Abbott, the “distinction between plot and story [...] is an implicit presumption that a story is separate from its rendering. Just as a story can be narrated in different ways, so it can be plotted in different ways” (in Herman, 2011, p. 40). He also suggests a distinction between story and discourse: story would refer to an event or a sequence of events, while (narrative) discourse would refer to the representation of the events, as it were, how the story is conveyed. In other words, narrative discourse is closer to what the perceiving subject actually experiences as a story. The organization of the events and the way they are encountered affect how narrative affects the user of the text¹⁹, be one a theatre spectator or a book reader.

As Marrone (2022) points out,

underneath the text there is a discourse involved in the construction of the uniform semantic structure of the text. [The] term discourse is used to call attention to the communicative dimension of the linguistic text by focusing on how linguistic forms are used in communicative situations (pragmatics), or to how different languages put into grammar their situations of emission and reception, thus pre-setting communication scenarios (the theory of enunciation). (pp. 132-133)

On the other hand, according to Ferraro (2015), the story has to do with the event referred to – thus, it remains ever unchanged – while the narrative discourse determines the way the story is presented, i.e., the form it takes. Every story, therefore, can be discoursed (*mise-en-discours*) in many different modes depending on the strategic choices operated by the instance of enunciation.²⁰ Algirdas J. Greimas and Joseph Courtes (1982) state that “the concept of discourse can be identified with that of semiotic process” (pp. 81-82). In this regard, the concept of discourse is often used

19 I semiotically refer to the term “text” as stated by Gianfranco Marrone (2022), namely, as any configuration of meaning empirically perceivable by means of one or more substances.

20 As such, the concept of discourse in Ferraro tends to overlap with that of plot, according to the structuralist opposition /story/ (*fabula*) vs /plot/ (*sjuzhet*).

with the meaning of narrative discourse rather than in a generative way, namely connected to the deeper structures of content. Even the term narrative is not always employed with the same meaning. Gérard Genette (1980) distinguishes three possible notions associated with this concept:

- a first meaning referring to the narrative statement, “the oral or written discourse that undertakes to tell of an event or a series of events” (p. 25);
- a second meaning referring to the succession of the (fictional or actual) events, “the study of a totality of actions and situations taken in themselves, without regard to the medium, linguistic or other, through which knowledge of that totality comes to us” (*ibid.*);
- a third meaning referring to an event, “not, however, the event that is recounted, but the event that consists of someone recounting something; the act of narrating taken in itself” (p. 26).

Among these three possibilities, he employs the term “story” for the signified or narrative content, while that of “narrative” for the signifier, statement, discourse or narrative text itself (p. 27). Likewise for Greimas-Courtes “the term narrative is often used to designate narrative discourse of figurative character (involving personages which accomplish actions) [while] certain semioticians define the narrative – following V. Propp – as a temporal succession of functions (in the sense of actions)” (1982, p. 203).

Within my comparative analysis between stage/auditorium practices and immersive ones, I am using the definition of narrative proposed by Rose Biggin, who combines some aspects of both Marie-Laure Ryan’s (in Herman, 2007) and David Herman’s (2009) theories. “Narrative is a representation of a sequence of events; narrative occurs within and creates a storyworld; it exists in space and time; it is bound up with sequence and causality: and it changes its form depending on its context” (Biggin, 2017, p. 117). A narrative represents a sequence of events ruled by causality which occur in the storyworld in response to disruption or conflict. Ferraro too

underlines the importance of the principle of causality when he states that every minimal story is articulated into three elements:

- a starting status
- an event
- an arrival status

Pursuing this threefold approach, the perceiving subject – be it spectator or reader – encounters the plot and follows it, making meaning and interpretation as he/she proceeds. Whereas the conventions of standard narrative forms envisage a sequence linearity, and thus an unfolding in a temporal order, in the next paragraph I will examine how immersive practices rather subvert this tenet, yielding an effect of defamiliarization of the basic elements of narrative in the partaking subject.

“Chasing after” the story throughout the environment: the case of *The Burnt City*

As illustrated in the second paragraph, immersive environments are characterized by audience mobility around the performative space. As Erika Fischer-Lichte (2008) puts it, the “performative space always also creates an atmospheric space” (p. 114). Therefore, spatiality is not only produced by the performers’ or spectators’ specific use of space, but also depends crucially on the specific atmosphere radiated by this space. For this reason, a certain extent of preliminary planning of the performance is decisive. For example, in Punchdrunk production *The Burnt City*, the gradual access into the immersive environment is a strategy that significantly contributes to the partakers’ perception of atmospheres. As a matter of fact, to enable an access to the indirect world of performance, such as to engender an immersivity effect, to leave out of the media experience all the items and conditions that would (perceptually) favor an inexorable anchorage to the direct world is more crucial than ever. Arriving at One Cartridge Place, at London’s Royal Arsenal, the site designated to host *The Burnt City*, before entering the venue, one is welcomed into a kind of waiting room in which one is

invited to leave coats, scarves, bags, including one's personal belongings²¹. The next stage consists of a preliminary access to the media environment via entry into a further foyer, in which the atmospheres gradually begin to take shape. The room is a first setting that re-creates a sort of museum, with showcases and exhibits, with information brochures and photos. The whole set-up is part of the narrative premise: we are in the mock-up of an archaeological exhibition on Troy, that introduces the partakers to the idea of sifting through layers of evidence and meaning. Indeed, the audience will be visiting the ruins of the excavations of Schliemann, the discoverer of the mythical city of Troy and the treasure of Priam.

At this stage, the space is dimly lit by the lights coming from the showcases and the edges of the room are darkened to the point of seeming almost nonexistent. A few sounds begin to inhabit the room and add up to the voices of the people participating, whose chattering, due to a somewhat odd effect of intercorporeal contagion, begins to lower its volume, turning into an indistinct buzz blending with the ambient sounds. A sort of time dilation effect is perceived as time gradually acquires a cairological quality²². Approaching a door, the stage of manipulation begins in which a character explains the rules of participation, advising everyone not to gather in groups but to spread out and let themselves be *taken in* by the experience²³, which to be truly unique must be individual. Therefore, all relationships that tie us to the direct world (friends, companions, family members, with whom one has come, for example, to experience the performance) must be neutralized in order to live – alone – the immersive experience in first

21 They are enclosed inside a bag that is given to each individual participant, strictly sealed with a device like the one used to prevent shoplifting in clothing shops: only a staff member can open it.

22 In Greek, *kairòs* is a special time, an occasion, an opportunity to be seized to which an almost magical value is attributed, which differs from *chronos* understood as logical, quantitative time.

23 In some ways, this concept is analogous to that of VR experiences, in which the spectator does not have an experience, but it is the experience that has the spectator, according to the polarity /I had an experience/ vs /An experience had me/.

person²⁴ on our skin (or rather in our body). Afterwards, the door opens, and one enters a first room, almost completely dark, where ambient music and other bruitistic effects stand out dominating everything else²⁵. To seal this stage, each spectator is then provided with a white Venetian mask, known as a “larva”, which one ought to wear for the whole experience. The mask hides the face of the partaking subjects, neutralizing their identity and assigning a new one. The aim is mainly to distinguish the thematic role of the audience from that of the actors, but also to guarantee the anonymity of the individual partakers and thus make them feel able to interact without any kind of inhibition. Albeit in the strictest and most recommended voyeuristic silence.

FORMS OF VISION, PERCEPTION AND SPECTATORSHIP

The Burnt City is staged in two vast buildings in Woolwich, south-east London, former munitions factories, which reconstruct the (possible) world of Troy and Greece, depicting the history of their fateful conflict. These industrial buildings evoke a sense of endless area, where memories of the war, its unfolding and its devastating effects emerge. In this setting, on the threshold between the factual and the counterfactual, rises *The Burnt City*. This blend of epic scale, complex installations and intimate encounters covers one hundred rooms in an area of approximately nine thousand square meters, to simulate two finely defined cities. In the Greek city of Mycenae, for instance, sand is underfoot in a cavernous space where enormous wooden beams, balanced on each other like crosses, rise in a swirling, smoky light. One can hear the roar of the storm and the melancholic calls of the wind instruments. The scenes unfold sometimes like a ritual, sometimes like fragments of dance, fights that plastically shape bodies.

24 Here again, we are dealing with a concept of experience like the *first person shot* mentioned by Ruggero Eugeni (2015), regarding video games or virtual experiences. After all, immersive theatre can be read as a game (Biggin, 2017).

25 This effect is rather akin to what we experience when entering discos and the music tends to absorb our voice, discouraging any kind of dialogue.

In narrative terms, *The Burnt City* intertwines references to ancient Greek traditional dramaturgies – in particular Aeschylus’ *Agamemnon* and Euripides’ *Hecuba* – as well as Fritz Lang’s *Metropolis* as a source of inspiration. Yet, the clearest narrative line is the one relating to the character of Iphigenia. Nevertheless, the linear storytelling of events (and the understanding of them) is not what an immersive experience is based on. It is rather fragmentation that marks these theatre practices. One is overwhelmingly *taken in* by the atmosphere and the ritual mode of access to the experience, in which reception moves from being conceived as an act of comprehension to an act of apprehension by those involved. Thus, the (classical) modes of frontal perception of the performatic event are undermined, consequently affecting the modulation of subjectivity in the aesthetic experience.

The fusion between the two planes of reality, which occurs in immersive experiences, makes it more difficult to identify the devices delegated to the discursivization of dramatic space and time, requiring the audience to cooperate further in the tricky process of story interpretation. “Immersive work engages audiences at an experiential level and within environments that prompt multisensory engagement and explorative forms of audience participation” (Machon, 2016, p. 34). Entering these possible worlds, spectators are immersed in a large “room of wonders” – a media environment far away from the usually “known” as theatre venue – so that they can be deeply involved in the diverse performative activities through the multimodal engagement of the whole of their senses. In fact, an immersive experience is first and foremost an environmental interaction between organism and its surroundings endowed with its own structures and modes of meaning even at the level of perception. The comprehension processes of the immersive storyworld do not unfold through an act of conceptualization, but of perceptualization. Bodies are prioritized in these worlds, and they are always performing and perceiving bodies. The charm of the environments, the details of the settings offer a truly multi-sensory and exploratory experience of the space and the relationships with the actors, sometimes even engaging touch and smell that are generally not significantly part of the semiotic

devices of a theatre performance. This mode of engagement gives each partaking subject a form of *creative agency*: their decision-making processes during the immersive experience produce a variety of interpretations and outcomes during and after the event. This emphasizes the uniqueness of each experience for each partaker.

Overshadowing the fictional devices that would guarantee transparency, nonetheless, leads to the dissolving of the boundary between illusion and reality, compelling the spectator to constantly oscillate between the two dimensions. A (con)fusion is thus generated precisely between belief regimes according to the opposition /referential mode/ vs /fictional mode/²⁶. In immersive experiences, the bodies of the partaking subjects are spatially scattered, rather than gathered in a holistic unified perspective as in frontal viewing and participation models. Entering the storyworld of *The Burnt City*, spectators are *submerged* in a place that requires a different perceptual engagement than they are used to in stage/auditorium configurations – which also impose a certain distance and a consequent predetermined framing of the event. The spectator’s physical body is forced, therefore, to interact with the environment (which although fictional is offered in all its materiality). Therefore, partakers are the ones who literally have to “chase after” the story in its processual making round the environment. Moreover, each spectator is compelled to think, make decisions and act through the environment, according to a *material engagement* (Malafouris, 2013) with the space that thus becomes an extension of one’s mind (Clark, 2004). The audience is constantly struggling with a work of negotiation and reconfiguration of the environments and dramatic micro-situations that emerge in them. Through complex abductive work, the spectators are also required to “gamble” each time on the dramatic relevance of certain elements with respect to others that are already semantically filled with their own function and pre-dramatic value.

26 In other words, in Bruno Latour’s terms, one could affirm that the spectator is exposed to potential “category errors”: if one were to pick a fight with an actor playing the villain on stage, for example, one would commit a category error (Fossier & Gardella, 2006). It can be considered a distinctly semiotic concept to explain the cognitive mechanism known as *conceptual blending* (McConachie, 2008, p. 40).

In addition to being delocalized in the media environment, as the performance no longer takes place in a single space for the acting, the narrative is also organized according to a discursive multilinearity. The story is split, fragmented and part of it is embedded in the whole immersive environment. In other words, the story is structured according to an episodic model that is, however, offered to the spectator's interpretation in disordered fragments, as part of a discursive arrangement that no longer relates to the narrative linearity of stage/auditorium theatre practices. In fact, the story unfolds in a reticular manner in space through several dramatic paths, which the spectator has to identify and reconstruct²⁷. Consequently, to orientate oneself within the immersive environment, the partaking subject, according to a gestalt principle, must apply (semio-cognitive) strategies of spatial framing, precisely in order to arrange the perception of the possible dramatic world. According to the ontological mode of vision as described by David Michael Levin (1993), the "viewer is situated within a visual field, not outside it; his horizon is limited by what he can see around him. Moreover, his relation to the context in which he is embedded is nurturant, not controlling" (p. 148). Following such an approach, as a result of embedding in the environment to be experienced, the spectator has two options (and can also switch from one to the other, throughout the immersive performance): i) "freeze" the image cut out of one's visual frame and watch moving objects/subjects enter or exit; ii) "select" an object/subject of interest to one's self and follow its movement, thus freezing it and letting the rest of the objects/subjects and the space project into the background. Compared to the proscenium theatre, in which the audience is only requested to adopt a mode of vision related to the spectatorial distance (Levin, 1993, p. 12), though, the observer is observed in turn in immersive environments. As Anna Fenemore (2007) points out, a form of *reversible embodied vision* (p. 7) is realized in this kind of performatic experience. We are dealing with a

27 Thus, another issue emerges, namely the *containment* of the narrative (enclosure), which, as a result, is no longer included in a stable structure with defined edges. This openness also lies in the fact that, even if a spectator were able to reconstruct the entire narrative order, one would still be dealing with a different story than the one reconstructed by another spectator.

form of vision experienced as part of a multitude of intersubjective relations and intercorporeal perceptions, both denoted by a reversibility of trajectory, rather than by traditional concepts such as /entry/ vs /exit/ or /inside/ vs /outside/ relating to the subject-object relationship. Hence, what is looked at in immersive practices also acts on what is looking at, as the object likewise exerts tensions on the subject, in turn objectifying it. The actor, in looking at the spectator, objectifies the latter as well, so that the perception between the two is signified by the lack of an unambiguous direction. A status of being situated in the environment is thus realized whereby one discovers the self-in-the-world as subject and object, and in doing that also simultaneously discovers others in the world as subject and object.

Towards a concept of userly narratives

I have outlined the extent to which immersive theatre practices challenge the conventions of standard narrative forms as compared to theatre ones articulated on stage/auditorium models. Accordingly, in my opinion immersive theatre narratives can be treated as non-natural narratives that the partaker tries to “naturalize”.

To the extent that the natural relates to an effect of mimesis or realism, it is a constructed entity, a reading effect; in so far as the natural relies on, or reflects, basic cognitive processes which relate to human ‘immundation’, [the] non-natural here refers to strategies or aspects of discourse that do not have a natural grounding in familiar cognitive parameters or in familiar reallife situations. (Fludernik, 1996, p. 8)

Applying the concept of “do it yourself” proposed by Marie-Laure Ryan (2006), one can argue that immersive spectators attempt to explain the logically incompatible plots of immersive narratives by assuming that the “contradictory passages in the text are offered to [them as] the readers as material for creating their own stories” (p. 671). Indeed, hitherto I have illustrated the extent to which the partaking subject in immersive practices must constantly come to terms with a

narrative complexity in the meaning-making process. Quoting the concept of “userly text” developed by Noam Knoller (2019), I claim that we are dealing with forms of narratives that can be defined as *userly narratives*. In fact, the immersive performance can be conceived as a userly text because it requires “not merely cognitive but also physical, bodily engagement, because [it is] both constituted and materially – as well as semiotically – altered by this engagement” (p. 107). Thus, spectators/users do not perceive merely the performing text’s meaningful form, nor they construct it merely mentally, but they also reconfigure it through physical enactment. These kinds of narratives involve a complex semiotics scaffold according to an interaction model. The user-spectators can encode the storytelling only interacting with the immersive environment throughout a multimodal embodiment.

As a matter of fact, computer-based networked media has radically changed both reading and partaking habits to the point that the audience’s capacity to deeply engage with any story needs to be reappraised even due to the “hypercomplexification of the environment” (Hansen, 2009, p. 114).

the media landscape has been radically changed by the appearance of ubiquitous computer-based networked media; reading habits have changed to the point that the public’s capacity to deeply engage with any story needs to be reappraised; and, most important, the world, about which stories need to be told, has undergone a rapid and profound change, [...] calls “hypercomplexification of the environment”. (Koller, 2019, p. 99)

The same change has occurred to the (immersive) theatre spectator, who is conditioned in approaching the performance by forms and models of viewing and understanding narratives more related to the TV series and the network universe. In other words, spectators are accustomed to fragmenting and reconstructing, to linking and customizing the very act of making sense of performance. Namely, they are used to dealing with complex narratives, far from the reassuring linearity of reading or film/drama

viewing, for instance. In the case of immersive theatre practices, it can be argued that the (performing) text raises new issues of containing the narrative, which is consequently no longer subsumed within a stable structure having defined edges. The story that the audience is able to construct at the end of the immersive performance will therefore not be a story-as-told, but a “story-as-experienced (what “story” an audience member builds for herself)” (Biggin, 2017, p. 117).

Conclusions

As illustrated so far, any immersive co-participatory experience sets up straight away an “in-its-own-world”²⁸, in which space, set design, sound and duration are, to all intents and purposes, sensible, touchable elements, constituting it in its materiality. The presence and participation of the spectator within the indirect world ensures that the partaking subject inhabits the created immersive environment. To comprehend this new categorization of the performatic environment properly, one can oppose the in-its-world effect to another effect also related to medial modes of experience as conceived by Laura Mulvey (1989) and applied by Francesco Casetti (1986) in the analysis of film experience: to-be-looked-at-ness. As Casetti states, the theory of the “subject position” of the 1970s and 1980s was in many respects above all a theory of *attendance*, tied to a model of experience that is marked by the relevance of the object of vision with respect to the environment in which the vision takes place, or to the background against which it is portrayed. The spectator acts on a seeing, rather than on a generic perceiving. Hence, one can determine a series of semi-symbolic correlations arising from this pair of terms in relation of contrariety (figure 1):

²⁸ Machon, 2016, p. 35.

in-its-own-world-ness	VS	to-be-looked-at-ness
<i>Touch</i>		<i>watch</i>
<i>in praesentia</i>		<i>in absentia</i>
<i>Inside</i>		<i>outside</i>
<i>Proximity</i>		<i>distance</i>
<i>Immersive</i>		<i>frontal</i>
<i>alethic gaze</i>		<i>assertive gaze</i>
<i>experience "with"</i>		<i>experience "of"</i>
<i>co-participation</i>		<i>Participation</i>
<i>Collusion</i>		<i>Detachment</i>

FIGURE 1. COMPARISON OF IMMERSIVE AND FRONTAL MODES

Source: Massimo Roberto Beato

Immersivity leads us physically into the possible world of performance, rather than inviting us to watch and understand it comfortably seated on a chair. As such, immersive experiences encourage partaking subjects to comprehend the performance on an embodied level, without necessarily being able to describe or explain it. Consequently, the narratives unfolding in the immersive storyworld are userly as the spectator reconstructs them at will. Such narratives, in fact, might be associated with the concept of *freeplay* argued by Jacques Derrida (1970) as they involve:

- the rejection of stable meaning in favor of an emergent conception of signification;
- the impossibility of achieving of all-encompassing and permanent apprehension of the performing text;
- the rejection/overcoming of binary opposition between factual and counterfactual uses of language.

In immersive theatre, the story is what happens across the media environment conceived within the venue chosen to evoke the possible dramatic world. This makes for embedded and above all interactive narratives. As users, spectators are free to become their own narrator, even

if they might feel frustration and competition while making their own plot. As a result, in my opinion one could associate the very process of emplacement suggested above to the concept of emplotment (White, 1973). In fact, one might conceive emplotment as a narrative strategy semiotically adopting by the partaking subject, who tempts to situate a specific event or events unfolding in the immersive environment within a larger narrative framework, thus giving sense, structure, coherency, and causality to what otherwise would remain a mere enumeration of actions. Ultimately, “plotting” is the act of shaping and crafting a narrative (Brooks, 1992). Since narrative is structured into plot, emplotment becomes the semio-cognitive strategy with which any perceiving subject shapes the story scattered into the environment. As Biggin (2017) highlights, in the immersive theatres, after all, “events in the plot become events in the space, which [spectators] seek out, stumble upon or enact themselves” (p. 164). According to the idea of connivance outlined by Barbieri, the spectator continuously interprets in terms of meaning creation what is happening around her/him in order to reconstruct one’s own narrative. That makes userly narratives forms of *environmental storytelling* since they are always intertwined with the environment in which they unfold, be it physical or virtual.

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**THE EVOLVING FRAMEWORKS: VISUAL NARRATIVE
EXPERIENCE AND IMAGE RHETORIC**

Alex Ma, Haoran Sun, and Hong Chen

The frame delineates the boundaries of the image while simultaneously suggesting the interpretive principles that inform its analysis. In the realm of semiotics, boundaries are neither identifiable as independent elements within an image nor regarded as innate categories through which the differences among elements are established; instead, they can merely be considered as a kind of relationship between elements. The transition from boundary to frame relies on continuous cultural practices over a long term. In this sense, frames are essentially a collective boundary consciousness that emerges from the re-interpretation and re-retrospection of boundaries. This consciousness introduces specific viewing patterns into the process of image interpretation and largely constructs the relationship between the subject and the image. The event of breaking the frame in artistic practice is related to a kind of image rhetoric, whereby the conventions and encoding rules of image texts themselves become the object of expression. The act of breaking the frame is not only a challenge to existing meanings but also a redefinition of the framework itself.

The relentless advancement of visual technology necessitates research focused on visual frame itself. In the context of traditional easel painting, the frame serves as a carrier, forming a fixed aesthetic unity with the image (content). However, starting from modernist painting, pure lines and colours, along with a shifting visual center, have increasingly diminished the constraining effect of boundaries. These phenomena of content overflow have led to the emergence of frameless, non-recessed canvases, thereby weakening the mediating role of the frame in distinguishing between the interior and the exterior. Subsequently, a series of other art forms have emerged due to the development of material and technical media; innovative forms such as assemblage art, video art, and digital art have broken the singularity of original

(painting) art materials, breaching the physical limits of existing frames with their overflowing content. Today, the medium of art can extend to an entire indoor space, a whole natural environment, or even countless electronic screens. Similar transformations are evident in the trajectory of film development. With continuous innovation in material and technical media, the visual scope, source of dissemination, sensory levels, and experiential dimensions presented by film also exhibit “content overflow.” The development of virtual reality technology further blurs the boundaries of images, making it increasingly difficult to identify the frame as a foundational element within a holistic image. The changes in the function and nature of frame in visual art compel us to pose a series of questions: When the old frame is broken, does it still play a role in the subsequent image narrative? In the event that the old frame becomes ineffective, will a new one emerge accordingly? What brings about the alteration of the framework? What brings about the alteration of the frame? How does the change in frames lead to changes in perceptual modes? How are viewing subjects reconfigured amidst these changes?

In the field of image and visual art research, the term “frame” carries two common meanings: firstly, it refers to the geometric and physical boundaries of an image, typically defined by specific carriers or media, serving to distinguish the internal and external aspects of an image; in a more complex sense, a frame points to a series of historical contexts, interpretive systems, and discourse modes concerning images, as Erving Goffman (1974) stated, a frame “is one that is seen as rendering what would otherwise be a meaningless aspect of the scene into something that is meaningful... each primary framework allows its user to locate, perceive, identify, and label a seemingly infinite number of concrete occurrences defined in its terms.” (p. 21) In other words, frame is a series of encoding rules and contexts that make the production of meaning in image texts possible. For convenience, we provisionally distinguish between “boundary frame” and “interpretive framework.”

One of the crucial functions of the boundary frame is to introduce specific interpretive frameworks into the understanding process of images. At the same time, the configuration of various visual elements in

interpretive frameworks also relies on the mediating role of the boundary frame. However, in previous visual studies, these two frame concepts have neither been clearly distinguished nor theoretically unified. Therefore, this chapter will first seek a minimal semiotic explanation for the boundary frame and, on this basis, elucidate the connection between the two frames. Meanwhile, it is necessary to retrace the history of the frame, thereby offering a potential perspective for visual art research. However, this does not imply that this research on visual frames equates to a historiography of images or hermeneutics of images; rather, it is aimed to establish an ontology and rhetoric of frames. It seeks to elucidate not only the ways in which frames participate in the production of meaning but also the semiotic characteristics and unconscious mechanisms of the frames themselves.

A semiotic interpretation of boundary

If boundary is considered as an individual element that can be identified within an image, then must come with the following supposition: that independent elements can be extracted from the image as a whole, and these independent elements are permissible to be regarded as signifiers, thereby entering multiple levels of signification processes. Roland Barthes (1977) employed a similar strategy in his attempt to establish a rhetoric of images: “Putting aside the linguistic message, we are left with the pure image... This image straightaway provides a series of discontinuous signs.” (p. 34). However, this leads to the problem of infinite regression. In light of the fact that images are not founded upon a discrete and segmented symbolic system as literary texts are, thus in the discussion of the “partial elements” which derived from the dissection of the entire image, it is a prerequisite to consider in which way the boundaries of these “partial elements” are defined, consequently, treating “boundary” as one of these identifiable elements requires further identifying the boundary of the boundary, and the boundary of the boundary of the boundary, and so on. Therefore, it’s not well-grounded to regard the boundary as an actual entity within the image, otherwise it would lead to infinite regression; yet, this judgment somewhat contradicts human intuition, as boundaries are always clearly given in our

sensory experiences and cultural activities. In this sense, a call for an explanation for the boundary that neither presents theoretical difficulties nor contradicts intuition has been prompted, having recourse to the principle of differentiation in semiotics.

All semiotic activities are founded on the principle of differentiation, which means we must be able to recognize signifiers that differ from one another. This principle not only applies to artificially segmented sign systems but also underpins human visual structures. As Merleau-Ponty (1962) stated in *Phenomenology of perception*: “A really homogeneous area offering nothing to perception cannot be given to any perception...this pure sensation would amount to no sensation, and thus to not feeling at all.” (p. 25). Merleau-Ponty might consider semiotic operations as a “prejudice of the world,” and this criticism must be accepted as any degree of semiotization disrupts the continuity of the world itself; in other words, an independent, singular pure image cannot be perceived by an analytical consciousness and enter the world of meaning, as much as all icons and indices are also founded on a minimal level of differentiation. No concept can be applied to a pure image, following this logic, boundaries cannot be a concept preceding differentiation.

If boundaries are neither a recognizable element nor an innate category by which these elements are established, then boundaries can only be viewed as a relationship among elements. Yuri Lotman (1990) insightfully pointed out: “Any act of semiotic recognition must involve the separation of significant elements from insignificant ones in surrounding reality. Elements which, from the point of view of that modeling system, are not bearers of meaning, as it were do not exist. The fact of their actual existence recedes to the background in face of their irrelevance in the given modeling system.” (p. 58). Lotman regards this selection and highlighting of elements as the primary step in cultural semiotic modeling, herein lies a dialectic of presence and absence: all forms of separation operations are established between two distinct elements, and the separation enables one of the elements to remain persistently present in an absent manner. Therefore, it makes sense of believing that boundaries are an effect produced by the separation of “significant elements,” and this separation essentially

establishes a potential relationship between two independent elements; in the process of interpretation and reflection, we recognize this relationship as the “boundary.”

In Lotman’s context, cultural entities such as images, music, and rituals are viewed as texts, and it is the translation of these texts that creates new meanings. In his classic model (as shown in fig. 1, adapted from Lotman, 1990, p. 15), boundaries should be located within derivative texts $T_2' \dots T_2^n$, rather than being considered a part of the source text T_1 .

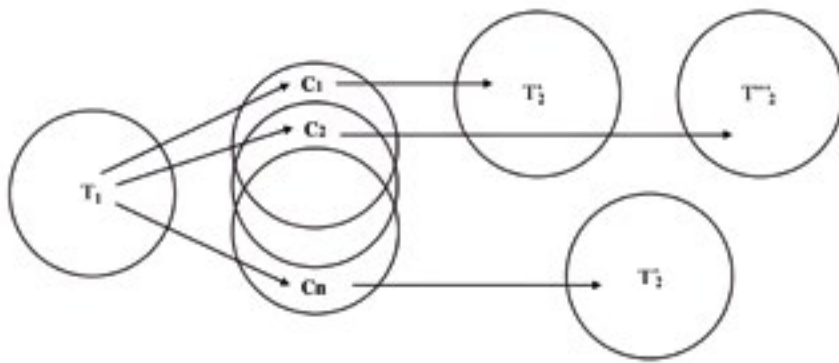


FIGURE 1. LOTMAN’S SPACE OF TEXT AND CODE

Source: adapted from Lotman, 1990, p. 15

Correspondingly, it is precisely some elements within the source text (often the edges of the frame, screen, or rectangular patterns, which commonly mistaken for the boundary itself, and which may be called “boundary elements”) that evoke the relevant code clusters, ultimately determining the boundaries of the image. If discussed within the framework of Roland Barthes’ rhetoric of images, boundary elements to some extent perform an “anchorage function” similar to linguistic information, anchoring the denotative meaning of the involved object while preventing the arbitrary diffusion of connotative meaning (1977, p. 38). In films and other moving images, boundary elements simultaneously perform a “relay function,” creating a temporal connection for the sequentially appearing and

disappearing scenes. Meanwhile, the codes evoked by boundary elements involve more complex cultural and cognitive issues, which we will explore in subsequent chapters.

Moreover, this interpretation of boundaries helps lay the foundation for the concept of “image unconscious.” Boundaries inherently signify the emergence of the visible, but due to the dialectic of presence and absence, their visibility simultaneously encodes invisibility, with the unconscious being the return of repressed parts in the signification process; the suppressed does not disappear but continues to persist in another sequence of signifiers in a metonymic manner (in the Jakobsonian sense). Thus, the representational system of images becomes a metaphor for certain principles within cultural structures and ideologies.

From boundary to framework: two metaphors

In the previous discussion, the boundary is something that is “continuously” identified and read, a fleeting meaning that emerges in the retrospection of the signifying chain. However, what is referred to as a frame is evidently not accidental, and it can be aware of as long as someone casually outlines a grid before starting to paint. The boundary frame resembles a pattern that persists and remains stable within culture, already serving as an accessible coding rule before people seek to encode it. The boundary frame can only form through continuous and long-term cultural practice, essentially arising from a collective boundary consciousness generated by the reinterpretation and reflection on boundaries. This frame itself merely signifies an “intentionality of form” for image texts, which “is neither unidirectional nor teleological but instead constituted by tension or difference.” (Mitchell, 2008, p. 137) Thus, it provides only an “anticipation” of meaning or a context awaiting fulfillment (for instance, let’s conceive a blank canvas or an empty picture frame). Therefore, the boundary frame can only be considered as a minimal interpretive frame: it is a mediator to meaning, but at its own level, the production of meaning has not truly begun.

However, on the other hand, people continuously imbue the boundary frame with meaning, a process almost synchronous with

the formation of boundary consciousness. Theories about the boundary frame are constructed, blurring the distinction between boundary frames and interpretive frames. Subsequently, two significant theories should be introduced and evaluations on them should be conducted simultaneously; these theories, presented in metaphorical form, have introduced specific viewing modes into the interpretation process of images and significantly influenced the construction of the relationship between the subject and the image.

THE WINDOW: A GATEWAY TO REALITY

The metaphor of the window was introduced by Leon Battista Alberti in *On painting*, and its use reflects, to some extent, the Renaissance attitude towards vision and images. Alberti (2012) likened the picture frame to an open window, with the canvas merely serving as an intermediary for “my” line of sight to reach the actual scene. This metaphor is intertwined with discussions of vision and perspective; in Alberti’s sense, the window is viewed as a cross-section of the “visual pyramid.” (as shown in fig. 2, adapted from Alberti, 2012, p. 15)

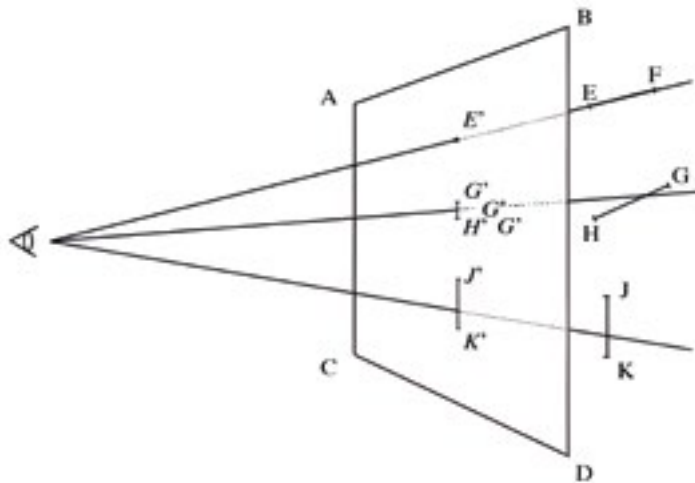


FIGURE 2. ALBERTI’S VISUAL PYRAMID

Source: L. B. Alberti

As he stated: “A painter needs to know not only what a cross-section is but also how to transfer it onto the picture plane... I set up a quadrilateral of any size, considering it as an open window through which I view the scene I want to paint.” (Alberti, 2012, p. 17; author’s translation). This metaphor ultimately materializes as an actual visual device known as the “veil”, which is a grid-aided drawing tool.

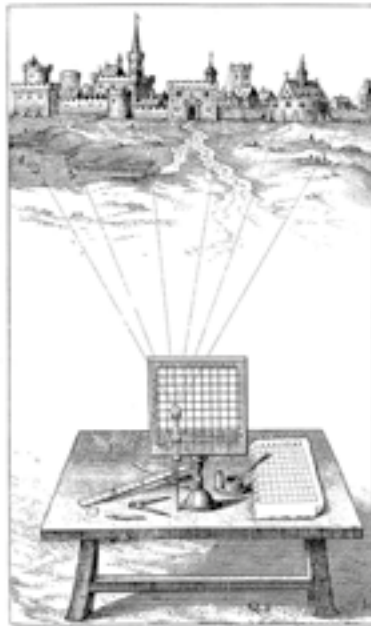


FIGURE 3

Alberti described the veil and its function as: “I place it between the eye and the object, allowing the visual pyramid to pass through it... It always presents you with a fixed and unchanging picture.” (Alberti, 2012, p. 33; author’s translation). Clearly, Alberti’s window metaphor views images as representations of the real world, with the frame device formed by the window metaphor essentially becoming a rhetoric and displacement of vision: the veil and a geometrically defined viewpoint replace our eyes and visual field, thereby determining the way real objects are represented.

At the image level, the window metaphor altered the arrangement of various elements within the picture, profoundly introducing the concept of “depth” into two-dimensional images, shifting the focus from the intersections and adjacencies of lines and shapes to the relationships of front and back, near and far, among objects. In this transformation, the window as a frame device plays a more crucial role, as it is more closely aligned with human vision and is the first thing encountered when reading an image. The window declares the distance between itself and the scene behind it, and it is this distance that makes depth the foundation of visual perception. In this sense, the window metaphor created a widely accepted set of coding rules, essentially producing a new vision, a “framed eye”; this new vision is often used to examine the metaphor that created it, mistakenly producing a natural illusion between the two.

This metaphor dominated the understanding of things for a long time, and its shadow is evident in related discourses of empiricism and rationalism. In *An essay concerning human understanding*, John Locke (1983) distinguished two kinds of properties of objects, laying the foundation for the theory of knowledge in empiricism. In Locke’s discourse, properties that exist solely within objects, such as extension, motion, or number, are called “primary qualities”; those not existing within objects but formed in human senses, such as colour, temperature, and smell, are called “secondary qualities.” (pp. 6-8). However, some properties categorized by Locke as “primary qualities” also require expression through specific conceptual systems, such as the perceived volume and extension of objects on a visual level, which need to be based on perspective and related geometric principles; as previously discussed, this system of representing things is established through specific frame devices and their metonymy in culture.

Descartes, in *Optics*, largely inherited this logic of device, replacing Alberti’s veil with a camera obscura and establishing a more complex and refined optical model. He stated: “The room represents the eye; the hole, the pupil; the lens, the crystalline humour, or rather all the parts of the eye which cause some refraction.” (Descartes, 1985, p. 166). The commonality with the window metaphor is that both view the generation of images as an

activity independent of human senses and perception, ensuring the purity and objectivity of images; however, Descartes went further than Alberti, where the window seems to merge with the scene behind it, jointly constituting the representation of the world. As Merleau-Ponty (2007) commented, this is a thought “no longer intending to deal with the visible and deciding to reconstruct the visible according to the model it provides itself.” (p. 50; author’s translation)

Returning to the metaphor of the window. From the observer’s perspective, the difference between Alberti’s window and an actual window is that the former does not permit us to freely change our viewpoint to glimpse the world outside the window, and since the modes of representation of images and things are pre-given, observers’ must accept and identify with a predetermined position of the viewing subject. As long as someone conforms to the visual mode established by this frame device, his/her position is unique and unchangeable; it is in this way that the frame as a window introduces a whole set of codes related to religion, power, and ideology into the process of image signification. Therefore, what people identify in the image is not only the world behind it but also their designated identity and position within the world, this is closely related to another metaphor which will be discussed as follows.

THE MIRROR: REPRESENTATION, REPRODUCTION, AND IDENTIFICATION

Strictly speaking, the metaphor of the mirror does not only involve the frame or boundary but concerns the entire structure and function of the picture, including the frame. On the other hand, as a visual device with a history older than Alberti’s veil, the mirror provides a grammar concerning the relationship between the world of images and the real world. Hence, it is necessary to incorporate it into our consideration. The Renaissance mirror metaphor was largely associated with the representational function of the picture, expressing meanings consistent with the window metaphor. Alberti (2012) believed, “We take patterns from nature and correct them by reference to the mirror.” (p. 55; author’s translation) Leonardo da Vinci also believed that painters should

emulate mirrors, faithfully reflecting the world before them. Norman Bryson (2000) aptly summarized: “When painting is viewed as a window directing the gaze beyond itself, the picture dissolves in the process of representing or reconstructing the scene before it: before the reality displayed in the distance, painting itself seems to disappear or turn towards the mirror.” (p. 83; author’s translation) Thus, the Renaissance mirror metaphor emphasized the transparency and mediation of the picture, a point sufficiently discussed earlier.

The next mirror metaphor is related to a series of semiotic perspectives. Lotman (1990) proposed an intriguing view, suggesting that “a mechanical reflection of an object in the surface of a mirror” is the potential semiotic core of the art of painting. The metaphor of the image as a mirror involves the ontological premise of the transformation from the physical world to the symbolic world, fundamentally linked to the “reproducibility” of images. (p. 54-55)

Walter Benjamin’s arguments in *The work of art in the age of mechanical reproduction* also sheds light on the discussion of “reproducibility.” He asserted, “In principle, the work of art has always been reproducible. Objects made by humans could always be copied by humans” (Benjamin, 2008, p. 20) yet the original possesses an unreplicable authenticity compared to its reproductions. This authenticity, in the terminology of Benjamin (2008) is called “Aura,” “a strange tissue of space and time: the unique apparition of a distance, however near it may be.” (p. 23). The Aura of an artwork signifies a non-verbal closeness between the person and the work as an object, with the richness of the work spontaneously emerging in the perception process in an open state.

However, it is not the reproduction of artworks but what we are talking about when we propose the “reproducibility” and “non-reproducibility” of images needs further exploration. Referring to Benjamin’s discussion of Aura, “non-reproducibility” always resides in certain positive qualities within a specific object. However, for images that are reproduced, do they inherently possess a positive quality called “reproducibility”? As a matter of fact, “reproducibility” and “non-reproducibility” are not two symmetrical concepts; the latter should be understood as an ontological

description, signifying the continuity and unknowability of objects beyond the dominion of reason and the power of linguistic naming. While the former implies an epistemological presupposition, suggesting that images and objects can be penetrated by the subject's consciousness, and we achieve this penetration through a coding process, filling the void left by the negation of the existent with a symbolic presence. Therefore, in Lotman's semiotic context, the mirror becomes a device for the production of symbols and is also a metaphor for the process of symbolizing images. Lotman considered the semiotic characteristics of mirror images akin to footprints or fingerprints, a Peircean index, suggesting that images should be founded on such indexicality rather than being viewed as a representation of the world.

Finally, it is necessary to introduce one of the most influential contemporary mirror metaphors. As film theorist Dudley Andrew (1984) stated: "Only by shifting the discourse to another plane and invoking another system could modern theory develop. A new metaphor was advanced: the screen was termed a mirror." (p. 134) This "another system" refers to Lacanian psychoanalysis. Generally, the Lacanian mirror metaphor aims to explain the structuring role of images on the subject's position and to interpret the act of viewing itself. It's not possible to fully elaborate on the specific ways psychoanalysis is introduced into film theory and image studies in the current chapter, as it has to recourse to the labyrinthine logic of Lacan; instead this chapter attempt to summarize the implications and essentials of this metaphor from a few key concepts.

The primary concept is "Gaze." In the seminar XI, Lacan (1978) devoted a chapter to discussing the gaze and the image, stating: "It is to this register of the eye as made desperate by the gaze that we must go if we are to grasp the taming, civilizing and fascinating power of the function of the picture." (p. 166). What does Lacan mean by "gaze"? What does the destruction of the eye imply? The "gaze" is an object being watched, entirely external to the act of watching; and relative to the gaze, the subject is also in the position of being gazed, and in this sense, the gaze is "the gaze of the Big Other" hidden behind the image. The subject cannot occupy the position of the gazer, but to effectively view the image, the subject must

attempt to identify with that position; in this mode, the eye itself seems to disappear, replaced by a virtual viewpoint set by the visual establishment. Thus, this symbolic identification makes the subject itself an image; in other words, the subject exists as an effect of the gaze.

Another important concept is “Imaginary identification.” Lacan argued, “The constitution of the ego by identification with something which is outside (and even against) the subject” (Evans, 1996, p. 82). this identification is typically a phase of the “Mirror Stage,” where individuals establish a connection with reality through identification. However, the image of the other being identified is essentially an intermediary, carrying the ideal image of the ego, so this identification is not a subject-object relationship but an “imaginary intersubjectivity”; in this narcissistic identification, the ego is objectified through the establishment of its own complete image, allowing the subject to further establish an object relationship with the external world.

The Lacanian mirror metaphor at least indicates the operation of images on two levels. On one hand, under the influence of the gaze, images draw the subject into power relations and simultaneously provide the primary reference point for interpreting and analyzing images, namely the position of the viewing subject. On the other hand, the “imaginary identification” induced by images leads the audience into the production and consumption of desire; images essentially create a fantasy for the audience, not something that directly satisfies desire but an interface representing desire as potentially realizable. Ultimately, the subject driven by desire is embedded within the visual order through this dual operation, and images ultimately complete the structuring of the subject’s desire.

Rhetoric and “breaking the frame”

The aforementioned metaphorical expressions about frames extend our discussion into the overall perspective of the cognitive and cultural functions of images. In this section, the expressive function of the frame itself will be re-evaluated and how it operates as a rhetorical element will be examined; meanwhile the impact and effects of the event of breaking the frame in artistic practice on the rhetorical level of images will be tackled with.

The core argument is that, frames—whether boundary frames or interpretive frames—are not expressive elements or recognizable signifiers in a natural or simple viewing consciousness.

As previously explained, frames either conceal themselves within a visual form or hide as a constitutive element behind the image. To clarify this argument, a loose analogy between images and linguistic texts can be established, likening the relationship between image content and frame to the relationship between semantic elements like words and sentences and grammar. In a typical informational text, grammar usually does not provide any additional new information, especially not in a rhetorical sense; grammar participates in the signification process merely as a code and does not intervene as a signifier. If it is hoped to include grammar itself as an expressive element, one must resort to some form of metalanguage, which is either introduced externally in the form of linguistics or semiotics or pre-exists within the text as a language game. Similarly, the framework can be regarded as a “grammar of images,” and some form of “metalanguage” needed to bring this “grammar of images” into the expressive process. This “metalanguage” might be introduced externally by the viewer’s “pre-understanding” or established frame elements, or it might be evoked by the interaction of various elements within the image.

As previously discussed, Lotman considered “reproducibility” to be at the semiotic core of images, but he also pointed out that “double replication” is the decisive step in the generation and development of visual art. Thus, an example of an image internally endowing the frame with meaning can be perceived. Lotman (1990) explained the function of “double replication” starting from mirrors painted on canvases, suggesting that mirror images play a role similar to language games in poetry, “by demonstrating the conventionality which lies at the heart of the text, it made the language of art the object of the viewers’ attention... and thus made the very essence of the pictorial language, its relationship to its object, into a topic of visual cognition” (p. 56). This discourse pertains to a deliberate orchestration or a particular self-reflexive consciousness. Lotman’s (1990) take examples from the Baroque church frescoes in

Czechoslovakia: the picture frame is painted to resemble a window, with a cherub sitting on the “windowsill,” and one of its legs extends beyond the edge of the frame in sculptural form. This example showcases the breaking of the frame in artistic practice: the frame as a window simultaneously exhibits a natural and artificial quality in this image, making it stand out as a ruptured element. In this situation, breaking the frame can be seen as an act of endowing the frame with meaning, turning the picture into a game directed at itself.

A more profound perspective might be that people often perceive opposing symbols within an image, and the connotations of these opposing symbols require understanding within different frames. In other words, multiple frames coexist within an image; viewers either choose one frame for image interpretation or simultaneously accept these incommensurable frameworks. Regardless, the framework itself becomes a rhetorical element. This aligns with our general understanding of rhetoric, where rhetorical effects rely on the juxtaposition of multiple subtexts that cannot be completely translated within a single structure, or as Lotman (1990) stated, “rhetoric is the transfer of structural principles from one semiotic domain to another.” (p. 62)

The above discussion provides a possibility for reinterpreting the art historical event of “breaking frame” from a rhetorical perspective. It is argued that the truth is never that some pre-existing meaning, rule, or coding form was destroyed in artistic practice; rather, it is only at the moment when it is broken that such meaning can be fully established. In other words, the existing frame is not equivalent to the frame broken in the “breaking frame” event; the latter is undoubtedly endowed with new meaning compared to the former. These new meanings, in turn, enter the cultural system and participate in the construction of collective frame consciousness. Therefore, the frame itself also reflects a dynamism synchronized with artistic practice, which is precisely the implication of the term “evolving” in the title of this article.

Conclusion

Through the preceding discussion, we observe that, on one hand, frames are relatively stable coding forms within cultural systems, not only guiding the selective representation and emphasis of objects but also determining the relationships and order among elements within images. On the other hand, frames are essentially produced through the interpretation and reflection on images, where the act of breaking the frame not only challenges existing meanings but also redefines the frame itself. With the continuous evolution of material and technological media, the frame of images, whether in terms of material, content, or concept, is not confined to a static and isolated state but follows a dynamic, ever-changing trajectory, drawing inspiration from tradition while rebelliously questioning the past. This process compels us to rethink the role of frames in image narratives and the reconfiguration of viewers amidst these changes. Confronted with the reconstruction of new frames in visual art after “breaking frame”, it is necessary to maintain an impartial attitude, recognizing historical logic with a broader “frame” to examine surrounding elements while remaining vigilant against the illusions of technological rationality, avoiding entrapment within a more closed boundary. Beyond focusing on media as an element, a series of methodologies, such as linking perception, iconology, and visual culture mechanisms across various art forms, confirm the feasibility and potential of a new “cross-disciplinary art history,” urging further exploration and inquiry.

Considering the extended meaning of frame, the interdisciplinary research methods connecting semiotics, art studies, and film studies themselves constitute a form of “breaking frame”: attempting to dismantle inherent barriers between disciplines, promoting theoretical growth through integration, while also serving as intermediaries, continuously providing theoretical nourishment for the phenomenon of media convergence in art. Through the perspective of “breaking frame,” a broader, boundary-transcending framework based on the overall media art environment can be established, uncovering the universal patterns of media and artistic practice, and discovering the commonalities of human activities and spirit, thereby seeking new paths for writing contemporary art history.

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THE WORD IS IMAGE: RELATIONSHIP BETWEEN WORDS AND IMAGES IN MICHALS' WORK

Gloria Ocampo-Ramírez

This chapter aims to address the particularly surrealist literary and pictorial influences evident in the work of American photographer Duane Michals, who, through his encounter with the work of Belgian painter René Magritte, was able to develop a unique aesthetic and language, transform his perspective as a photographer, alter his concepts of the image, and initiate a rupture in the photographic practices of his time. This transformation stems from the importance of imagination in photographic creation and the integration of written words into his work. The chapter presents a brief context of the lives and works of both artists, highlights points of convergence that facilitated their encounter, and, through an analysis of selected works by Michals, demonstrates how his encounter with Magritte was instrumental in reshaping his photographic practice. This transformation allowed Michals to develop an extensive narrative and poetic language in which photographic creation serves as a vehicle for creativity and imagination, interpreted from Yuri Lotman's concept of Semiotic Translation.

Visit with Magritte: the encounter with influence

Photographer Duane Michals, born in McKeesport, Pennsylvania, on February 18, 1932, is one of the most prominent American photographers of the 20th century. His work has been exhibited since the 1960s, not only in the United States but also across Europe. His series and sequences have been analyzed, studied, and critiqued by countless historians, art theorists, and philosophers, including the French thinker Michel Foucault, whose reflections underscore the importance of Michals' photographic work, where imagination, fantasy, and the creation of scenes hold more significance than the faithful documentation of reality.

His works emerge under the influence of surrealism, particularly that of Belgian painter René Magritte, whom Michals regards as one of the

most important references in his creative process. Many of Michals' literary influences come from authors such as Walt Whitman, Baudelaire, C. P. Cavafy, Lewis Carroll, and Jorge Luis Borges—authors whose impact is evident in both the poetic nature of Michals' work and the compositional treatment of his images.

René Magritte (1898-1967), in turn, came from a traditional family: his father, Leopold Magritte, was a successful fabric merchant and renowned tailor in the region, and his mother, Regina, tragically ended her life by drowning in a river in March 1912, an event that would profoundly impact young René's life and work. Magritte studied at the Académie Royale des Beaux-Arts in Brussels from 1916 to 1918, though he had already begun painting with an impressionist style in 1915. From there, he explored various techniques in cubism and futurism, among other avant-garde movements of the time.

Magritte quickly became an esteemed painter with an exceptional career, especially after participating in the first group exhibition of surrealists in Paris in 1928, alongside Salvador Dalí, Jean Arp, André Breton, Paul Éluard, and other prominent figures of French surrealism. Following this, and with the momentum from winning the Guggenheim Award in 1956, his work gained recognition in the United States and worldwide.

Magritte's work is rich in conceptual relationships; it questions likeness, figuration, and representation. From this foundation, he engages viewers in intriguing visual games, inviting them to ask new questions within his visual language. Above all, Magritte (1979) seeks to "breathe new life into the way we look at the things around us. But how should one look? Like a child: for the first time, seeing everything as a reality outside oneself. I live in the same state of innocence as a child, who believes he can reach a bird in flight with his hand" (p. 317).

The Belgian painter uses visual metaphors to transform the meaning of his works, altering not only the likeness and appearance of objects but also revitalizing and renewing the act of seeing. He invites the viewer not only to contemplate but also to reflect on his images, enhanced by titles, words, ambiguities, and the interplay between words and objects.

René Magritte gained recognition across various European countries, embodying the unique essence he contributed to the movement; thus, he became one of the most prominent artists on the global art scene, fostering a new way of conceiving painting through his works. In this vein, Magritte (1979) asserts:

For the painter, the search for suitable means to make the sky, a pipe, a woman, a tree, or any other object appear constitutes his primary task. This work is carried out in complete darkness, though in that darkness he must preserve the sense of freedom if he is to avoid being swept away by the magnetic fields of chance. (p. 237)

His first solo exhibition in the United States was held in 1936 at the Julien Levy Gallery in New York. However, it was with the Guggenheim Prize and his contract with curator Alexander Iolas that his work entered the American art market. Notable among these is the 1962 retrospective exhibition and a subsequent show in 1964 at the Alexander Iolas Gallery in New York, an exhibition that Duane Michals may well have attended, as in August 1965, he traveled to Brussels to meet the painter in person:

I was 33, and he was 65 when I visited him in Brussels. He was a contradiction—a surrealist who lived like a banker with the kaleidoscopic mind of an alchemist. He was very kind to me, giving me carte blanche to his treasures. (Michals, 2011)

From this encounter emerged a series of photographs titled *A visit with Magritte*, in which Michals captures Magritte, his wife, and their surroundings. The Belgian painter holds the power to transform the American photographer's vision of the image, steering his craft toward a poetics in which text and image merge in a singular way. The alchemist Magritte transmutes one substance into another; in this case, he transforms Michals—perhaps unintentionally—toward valuing a work conceived and constructed by allowing thought to freely contribute to its formation.

My paintings are images. A valid description of an image cannot be made without directing thought toward its freedom... I consider valid the test of language that consists in saying that my paintings were conceived to be material signs of the freedom of thought. (Magritte, 1979, p. 278)

This perspective from Magritte both liberates and strengthens Michals' drive to create:

When I started, I couldn't write on photos; I couldn't represent ideas. So, I freed myself, Magritte freed me: if I could do it, I could do it... and I don't have to worry anymore. Everything is in my mind, everything is in your mind, the universe is in your hands. (Del Moral, 2009)

For both, painter and photographer, art is a game whose main player is thought; this must serve to turn ideas into images, as, beyond being a tool for representing the world, the construction of images from thought is as complex a process as language. For this reason, both artists challenge the viewer to engage actively, navigating images and words both visually and thoughtfully. In Magritte and Michals, thought becomes visible.

Magritte allows us to ponder the image, to make room for thought and reflection around the complex relationship between objects and words, between what is said and what is seen, affirming that sight must think and posing Michel Foucault's question, "What is there to understand here?" (Foucault, 2012, p. 61) to ultimately confirm that there may be nothing to understand, only to let our thought act, accompanied by the painter's creative act, and to allow ourselves, like Duane Michals, to be freed by this encounter.

Between the painter and the photographer, the encounter takes place in the 1960s and enables Michals to develop the sequences and other technical and aesthetic processes evident in his work. This encounter encourages the photographer's reflection on the inclusion of written words in his work—an interest Magritte had already explored in the 1920s and that the French philosopher would engage with in the 1970s, and which Michals incorporates in his photographic work beginning in

1974. This year marked a pivotal moment in Michals' creative development, as it was the year his father passed away, prompting him to start including handwritten text in his images—a choice that has continued to define his style to this day.

The father's death as a catalyst for writing

Michals requires sequences to develop his ideas into brief narratives that evolve into poetic motifs, thus introducing viewers to a new language driven by the urgency to include writing, as he feels compelled to create works in which, beyond the main intention, new textual and visual meanings emerge:

Sometimes I make a photo with text because I feel that the idea needs something written on it. So, I don't feel that there can be categories of photographs, painting, drawing, writing. The only question is: how can I express myself fully? (Michals, cited by Medeiros, 2000, p. 162)

In this way, Michals not only constructs images from his worldview, thoughts, and ideas, as he states, but also dedicates a great deal of intention to handwriting various reflections that enhance, reinforce, and deepen the meaning of his visual constructions, for “between word and image, between what language paints and what the visual says, the beautiful unity begins to split; a single and equal meaning is not immediately shared” (Foucault, 2002, p. 34).

Magritte's presence in the development of Michals' photographic work is akin to that of a father—a father admired but also feared. Michals notes that he felt “silent in the way we are around those we fear; intimidated by our respect for them” (Michals, 1981, p. 4) in the painter's presence, acknowledging his respect and admiration for Magritte as a mentor. Mentors like him “open our lives, give without taking, and free us in the process. They do so unknowingly. They do so through the example of their lives and the power of their art” (Michals, 1981, p. 4), amplifying and transforming the art of others through their encounter, as happened with Michals.

In some way, Magritte takes on a paternal dimension for Michals, providing him with visual and aesthetic education, a kind of liberation, as we have noted; he is a father who, although distant in time and space, created works that left the photographer in awe, proposing ideas that were both playful and serious, freeing him from mere observation. Yet it is a seeing that goes beyond simply looking with the eyes; it is a vision that transforms and that brings the American photographer to Brussels to thank him for the power and integrity of his vision.

This vision, as we know, liberated Michals' creative act and authorized him to explore new modes of photography, including the creation of sequences, the use of technical effects such as blurriness, motion blur, transparencies, among others. This liberation of the power of the image, the need to bind aesthetic and technical language to his encounter with Magritte, also led to Michals' unique integration of text into photography, a feature also presents in the Belgian painter's work and in his use of writing from a different poetics, which evidently influenced the photographer.

The year 1974 marks a crucial stage in Michals' artistic development, as he begins incorporating handwritten text into his work, stating he needed to find the best way to express ideas and emotions. This is also the year his father passed away, an event that served as a catalyst for Michals' writing.

The father—this authoritative figure in traditional society as the central pillar of familial order, the commanding voice marking the beginning of children's encounter with the world—is a symbolic and often problematic relationship that has been reflected in countless works of art. One need only think of the mythical relationship of Cronus with Uranus—devouring his children—the numerous father-child relationships presented in Catholicism, or the multitude of father figures depicted in literature and film, such as Hermann Kafka in Franz Kafka's letter, Gabriel Eligio García's distant relationship with his son Gabriel García Márquez, Paul Auster's statement that his father *left without a trace*, as an invisible man traversing the world always elsewhere, or—approached from another angle—Roberto Benigni's intense and fervent need to protect his son in *Life Is Beautiful*.

The relationship with the father is always complex, fraught with uncertainties, as it is inherently an act of faith that carries opposing feelings: identification and rivalry, trust and fear, indifference and apprehension, love and hate; contradictory emotions that resonate with the need to capture this echo of the inexplicable in words or images.

Writing about the father, reflecting on this important figure, always implies a gesture of distancing; one must look elsewhere to come back to oneself, and thereby back to him, finding two parallel strands: on the one hand, profound fascination with the father, and on the other, the inscrutable repulsion, fear, or hatred toward his being.

It is well-known that the intensity of emotions shared between fathers and children has found expression across many cultures and beliefs, as well as in psychology, psychoanalysis, literature, and particularly art, where this relationship has been problematized, presented, and re-presented in unique ways.

In many cases, the father relationship has been seen as a catalyst for literary, artistic, and philosophical creation, especially when the father is absent, be it physically, psychologically, or emotionally.

For Duane Michals, this relationship is marked by clear incomprehension and distance—a relationship he would reconstruct and re-elaborate through his photographic work starting in 1974, a time when this separation was accentuated by death. An event that Michals prefers not to name, leading him to integrate written words with images, just as his artistic father—Magritte—had done decades earlier.

Michals begins in 1974 a series of works accompanied by handwritten notes, later published in 1981 in a book titled *Duane Michals: Photographs with written text*, which consists of 21 black-and-white images, each paired with his handwritten reflections. Through these works, Michals explores the paternal relationship, the connection between image and word, and his desire to configure, via his images, reflections that evoke emotions arising from the physical absence of his father (emotionally and affectively distant for years).

A pivotal work addressing this experience is the photograph titled “A Letter from My Father.” In this image, we see a family portrait taken from the author’s personal album, a found photograph reconfigured into a

new work accompanied by Michals' narrative. In this scene, there are three figures: in the foreground, a young male figure representing the couple's son (the photographer himself in this case), appears in profile on the right side of the image, looking toward the left side of the composition. In the middle ground, the father figure faces forward with his arms on his hips, displaying a strong, aggressive expression, his gaze harsh and his face tense, evident in the tightly contracted mouth. Finally, in the background, on the right side of the frame and almost invisible, is the mother, appearing sad, her gaze distant and vacant.

As is customary in Michals' work, this image is accompanied by a decisive text, later added by Michals to provide context and meaning to the scene:

As far back as I can remember, my father always said he would someday write me a very special letter. But he never told me what it would be about. I used to try to guess what the letter would contain, what intimate secret we would share, what family mystery might now be revealed! I knew what I wanted to read in the letter. I wanted him to tell me where he had hidden his affections. But then he died, and the letter never came. And I never found the place where he had hidden his love.

In this image, Michals performs a complex semiotic transposition, where the photograph, as a visual sign, merges with the written text to generate a new meaning. The seemingly simple static image becomes a point of departure for a complex and emotive narrative. On its own, the photograph presents an apparently static family scene, but through the text, the internal dynamics of family relationships, repressed emotions, and unfulfilled desires are revealed.

Lotman (1988) teaches us that signs do not exist in isolation; rather, they interrelate, forming systems of meaning. In this work, the photograph and the text constantly interact, creating a semiotic system where each element complements and modifies the other. The image, laden with implicit emotional weight, becomes an anchor for the text, while the text, in turn, deepens and expands the meaning of the image.

The metaphor of the letter that never arrives is key to this semiotic transposition. The letter represents absent communication, the unfulfilled desire for connection. Through this metaphor, Michals invites us to seek hidden meanings behind appearances, to decipher the nonverbal language of emotions, and to understand the complexity of human relationships. In this sense, the photograph becomes an enigma that can only be resolved through the text, and vice versa, as the photographer himself affirms:

If in *A letter from my father* I had only made a portrait of my father, I would have shown what he looked like at fifty, but I needed to express things that couldn't be seen in the photo, and I had to write to explain the lack of affection that characterized our relationship. (Quoted by Viganò, 2001)

Michals' work shows us how semiotic transposition can enrich our understanding of images. By combining visual and textual elements, the artist invites us to actively participate in constructing meaning, exploring the multiple layers of interpretation hidden behind apparent simplicity.

Michals writes his texts as an omniscient narrator: it is the photographer himself expressing his thoughts, feelings, and emotions at the moment he composes the photograph.

Words, stories, and images

In Michals' work, photography and text continuously interact, creating a new semiotic system in which each element complements and modifies the other. Michals' narrative voice serves as a bridge between the visual and textual worlds, allowing the viewer to access the photographer's psychological depths and those of the represented characters. By overlaying his thoughts and emotions onto the image, Michals creates a multidimensional narrative that transcends the mere depiction of reality. This semiotic transference (1988) not only enriches the visual experience but also invites the viewer to actively participate in constructing meaning, to fill in the blanks, and to form their own interpretations.

“I seek to find my own truth through my experience, to be true to my own instinct...” Michals asserts, convinced that his work—his images, and thus, his writing—must become “the bottle thrown to the father to restore broken communication” (Cortanze, 1966, p. 38), using the medium he finds most effective—like Paul Auster’s—to establish that nonexistent connection between him and his distant, absent father figure.

This departure from the traditional and plastic language of photography in Michals’ work becomes a “whispered scream” with the inclusion of written words that propel, reinforce, and accentuate the intended expression.

“I started using sequences and then writing because I needed to express certain ideas and had to find a way to do so” (quoted by Viganò, 2001), and it is through writing that Michals finds the best way to express the feelings accumulated deep within his soul—a need partly fulfilled thanks to the liberating encounter with Magritte—and redeem himself by constituting a body of work that embodies absence.

These handwritten notes, made on the photographic paper itself—above, below, alongside, in different positions relative to the image—do not serve to explain or indicate what is depicted but to reinforce and enhance the meaning of what is shown. They bind, link, and anchor the image—with its multiplicity of meanings—to a narrative that complements the texts Michals presents to us. “Now it is more often the words that come to say” (Foucault, 1996, p. 30), appearing without any narrative or descriptive intent, not as textual explanations of the image, not as interpretation or translation, but rather as complements that amplify the meaning, offer new interpretations, and challenge the communicative structure of the photographic image in a body of work that demands more than the image alone to convey significance.

For Michals, image and text are not sufficient by themselves; independently, they cannot convey what they achieve in tandem. In his work, there is no “end” to the photograph, no exhaustion of the photographic image, but rather an indiscernible zone between photography and written text—a questioning, a need, a mutual call between image and word to

produce a different meaning that “is offered to the gaze of the other so that, indeed, they may see” (Foucault, 1996, p. 31).

Michals’ work resides in this transfiguration, where we encounter the perfect interplay between image and words that, under the artist’s hand, harmoniously align to achieve that “telling,” that expression without subjugating or diminishing the images. Here, we encounter a unique discursiveness in which a multiplicity of meanings begins to emerge before a narrative not constructed from a single photographic image but from a constantly evolving poetics. It is thanks to this approach that, in Michals’ sequences, the viewer—that is, we who come to engage with his work—become mirrors, become lenses, become texts. “Becoming does not allow separation or distinction between before and after, between past and future. It belongs to the essence of becoming to move, to pull in both directions at once” (Deleuze, 2005, p. 7). Positioned in the spaces of entering and exiting, constructing and breaking, inside and outside, these paradoxical photographic works dismantle reality to make way for new events, new languages. These are works in which text becomes image, and the image opens to polysemy and the unrepresentable. “Between the word and the image, between what language paints and what plastic art says, beautiful unity begins to separate; a single and equal meaning is not immediately common to them” (Foucault, 2012, p. 34).

For the photographer, “text and image, when seen together, say something that neither element alone could express,” and they intensify in their proximity, in the use of both when the visual language is exhausted and gives way to words; when written language falls short and needs the image to enhance its strength and meaning.

Russian semiotician and cultural theorist Yuri Lotman (1922–1993) coined the concept of “Semiotic Transference,” which refers to a fundamental process in cultural communication and the transmission of meaning across semiotic systems such as language, art, and other sign systems. It particularly denotes the movement or transfer of meaning from one semiotic system to another. Lotman argues that different sign systems (such as language, music, painting, photography) possess their own rules and structures for generating meaning. However, in cultural communication,

elements of one semiotic system can be “transferred” to another, carrying their significance with them.

This transfer process implies that the original meaning may be reinterpreted, transformed, or enriched in the new sign system. Lotman argues that Semiotic Transference is essential for artistic creation and cultural evolution, as it enables the interaction and combination of different semiotic codes, thereby enriching cultural communication and contributing to the generation of new forms of expression and meaning.

Lotman’s Semiotic Transference (1988) involves the transfer of meanings between different sign systems. In the case of photographic images like those by Duane Michals, we can consider how visual elements and messages are “transferred” and reinterpreted in terms of meaning. Transference occurs when the viewer interprets and “translates” these visual elements into verbal or textual meaning. The accompanying text adds an additional layer of meaning by interacting with the image. The viewer might interpret the text in relation to the visual elements, forming connections between both forms of communication. The meaning transfer occurs from the visual sign system (the image itself, its composition, lighting, the subjects’ poses, and the objects present) to the linguistic sign system (the text accompanying the image).

An example of this is the work *Someone left a message for you* created in 1974—the year Michals began incorporating writing into his work—composed of four black-and-white horizontal photographic frames. In this sequence, we see a hand (seemingly left-handed) writing a phrase on a piece of white paper that, upon closer inspection, appears to be written backward. Mirror writing is popularly recognized as a method of concealing reflections recorded on paper; even the Renaissance genius Leonardo da Vinci used it daily, with contractions, initials, and abbreviations to obscure his written thoughts.

Someone left a message for you, Michals says, but it’s an encrypted, hidden message that needs to be uncovered—like many of his intentions—using a mirror. This, in turn, reveals Michals’ intent to make us part of the work: from the title itself, the author tells us that the message is for us. However, the text is encrypted, and we must search for other elements—the

mirror—to access it, discovering that both languages—image and text—in Michals’ work demand and require one another, mutually enhancing the work’s meaning.

This fusion, where the visual and textual deeply intertwine, perfectly exemplifies Lotman’s (1988) concept of Semiotic Transference. Michals operates as an indefatigable translator, carrying visual signs from the photographic world into a new semiotic system: written language. In this translation process, meanings multiply and reconfigure, creating a new reality that goes beyond the simple sum of its parts.

As Evans (1985) states, Michals writes about what cannot be seen in the photograph, thus revealing the semantic dimension underlying every image. Like Lotman, Michals understands that the image is not a mere reflection of reality but a cultural construction constantly interpreted and re-signified. In his work, photography becomes a starting point for a deeper exploration of the human condition, where the dream-like and the imaginative intertwine with the real. In *It is no accident that you are reading this*, Michals materializes this idea, inviting the viewer to actively participate in the construction of meaning through reading and interpretation.

Therefore, in Michals’ works, words remain enigmatic; they challenge reflection and creation. Words here do not serve to clarify, narrate, or justify the idea. In his work, words do not exhaust themselves in the mercenary function of explaining aesthetic intentions, countering the idea that the image should not allow room for discourse.

Michals’ images directly address us, drawing us into their interplay, where understanding extends beyond sight, speaking to us directly as if they had a life of their own. Following Huberman, the images look at us—we are not the only ones capable of seeing them. This Image-viewer relationship is a powerful connection that is evident in the photographs of Duane Michals.

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TEMPORAL AND NARRATIVE DYNAMICS IN 3D IMMERSIVE MEDIA STUDIES

Damien Tomaselli

This chapter draws on relational ontology of authorship of augmented reality, 3-dimensional gaming and the narratives of virtual reality, all of which are integrated into the theoretical findings from studies of immersive 3-dimensional, or 3-dimensional based media. The chapter explicates the link between the temporal dilation materialised through 3-dimensional media, including third- and first-person gaming as well as those of volumetric spatial depth such as virtual reality and augmented reality. It concludes by relating these to the narratological characteristics of immersive enabled 3-dimensional media.

Introduction

In this chapter I will elucidate the concept of the *temporal index* and its configuration in the articulation of visual narratives. I will leverage the concept of temporal index to draw general distinctions of narrative forms which appear in 2- and 3-dimensional situations respectively. I will focus on the link between 3-dimensional narratives' relationship with immersive tendencies and specifically the relationship between story, space and form of dimensional dense narratological discourse. I will argue that several common characteristics become implicit with the unfolding of plot in these instances, namely, *identity text* which spurs spheres of what I consider, *sensory text* as well as agency and affect, while, borrowing from ludology, *embedded text* invites spheres of *co-generation* and *ludo-narrative dissonance*.

Aesthetics, space and narratology

Marshall McLuhan measured media in their medium. McLuhan's work focused on the nature of messages, rather than the content of the message (McLuhan, 2001, p. 9). It could be argued that the artistic form of the

message is tailored through the medium (Sjöholm, 2013). In this manner, the media becomes a frame for the message in a similar way that the message of a painting becomes composed by the dimensionality of the frame which surrounds it. In both instances, the frame can be understood as a symbolic proxy for the organisation of the material encompassed within it. The depicted material considers the relations of the symbolised time and space composed within the painting. We can then understand that the message of the painting is encoded through spatial-temporal relations. These relations are not neutral; they are heavily laden with inscribed meaning, and in this sense, can be considered as the message itself. Hence, the message is enabled through the inscription of rhetorically charged spatial-temporal relations, synonymously bound to their aesthetic construction. In the case of ‘moving’ media, these relations shift within their spatial dynamics though time. Yet the nature of an author-based insignia of the message remains intact, although the nature of the message shifts in its form as the temporality shifts from a static to a moving image. If the message, in whichever audio-visual form it appears, is constituted of temporal rhetorics, then it naturally follows that the message could also be understood as a rhetoric of spatial relations delineated over a certain timeline. Visual media are understood because they index the physical world in the first place (D’Armenio, 2022). The construction of the content of messages that are presented in media are just representations of time and space organised in a specific manner. Semiotically speaking within the field of translation studies, Kobus Marais notes that the materiality of any source text can be “predominantly conceptualised in spatial terms” (Marais: 2020,111). He argues that meaning can be modelled in a system of space and time. This concept of a unified time, space and narrative is thoroughly accounted for under the term, ‘chronotope’ as proposed by literary Russian formalist, Mikhail Bakhtin, in which he describes a unified concrete flesh resulting from artist expression of the intrinsic connection between space and time in the novel (Bakhtin,1984). Time unified with space becomes the conduit through which all meaning (and messaging) must flow. When the chronotope is expressed through visually related means, rhetorical meaning becomes grounded in the semiosis of its representative configuration. In

other words, meaning is bound to the sign, and in visual narrative that sign manifests through an aesthetic form. “In the visual art, space imposes limits to the possibilities of combination” (Sjöholm, 2013, 21). It is important to note that these aesthetics are the building blocks of the materialisation of the solidified concrete narrative. Hence, it is not an overstatement to consider the aesthetics of a narrative timeline or artwork as semiotically charged. It is also not an overstatement to insist that these building blocks are deeply ingrained in narrative semiotic meaning as they are part of the material and hence embedded into the timeline; as such they are the actual narrative. The nature of the chronotope is totalising in meaning. The part cannot be so easily separated from the whole.

The realm of the imagination necessitated through the reading process is then filtered through the lens of the visual form. Art direction, colour, and any other codes shape the presentation and meaning of the sign, inscribed with author insignia. Hence, the aesthetic form of the sign is directly bound to the temporal rhetoric of the message. This interpolates aesthetics into the grammar. This is important as the spatial signposts are formed through aesthetics which, in the narrative, behave as signs. It is for this reason that I affirm that style is the substance.

While I identify the narrative forms which follow with the lens of their dimensionality, they are more commonly understood through the terms augmented and virtual reality. Augmented reality, a term coined by researcher Tom Caudell at Boeing in 1990 (Wang & Dunson, 2007), and concerns the overlay of the virtual world onto the user’s environment (Oke et al, 2021). At the time of writing this chapter this is commonly accessed through mobile cellular devices, although development of head mounted displays are underway (McMillan, 2022) with billions already being invested into the concept with iterations of Microsoft’s Hololens for example. Virtual reality considers a ‘simulation of reality’ (Dooley, 2021), currently accessible through head mounted displays. Virtual reality has also been explained as, “a communication process between human beings, mediated by computer systems, which uses visualisation and other sensory stimulation” (Barricelli et al, 2016).

There is a rhetoric-aesthetic-temporal commonality that exists in the case of what is often termed as ‘immersive media’ such as augmented reality, virtual reality, 3-dimensional, volumetric and holographic media. This is the articulation of depth. Depth is not merely aesthetic pleasantry. It is meaningful in the discussions of spatial relations articulated by the message in question. The immersive form the representation of depth, unlike that of flat 2-dimensional insignia, extends from the interpolation processes moving from 2-dimensional canvases to becoming superimposed through real-world relatable spatial depth of three dimensions. The diegetic depth of the fictional temporality overlaid onto real world temporality makes it easy to confuse the temporality index of real-world with that of the fictional diegetic one that occurs in the narrative. As Doloughan (2011, p. 65) identifies, in instances of multi-modal storytelling, that semiotic representation is born not only of the mind but also the body.

Hence, real world spacetime realities become implicit in the reading of the fictional. In the case of immersive media, such as augmented and virtual reality for instance, these real and fictional spaces form meaning through artistically dancing with each other. The effect is an almost parallel existence of temporalities feeding into each other in order for meaning to manifest.

The shift from 2-dimensions to 3-dimensions reconstructs many of the spatial relations through which movement and meaning are designed. In immersive media, these tend to share a commonality in the constitution of a 3-dimensional axis. No longer defined through a 2-dimensional frame, the image (and thus meaning) becomes scattered in the shift towards a 3-dimensional plane. As the semiotic meaning is constituted through the signification of spatial relations of its aesthetic-based signifiers, what follows is both the shift in the process of meaning construction, as well as the construction of movement. In other words, the temporal index dilates as the signification of space and time dilates rhetorically within it. A commonality of characteristics of such 3-dimensional media have been studied by several scholars. I will reference some of these commonalities in this chapter and account for their rhetorical characteristics. In the instance of augmented reality, for example, semiotic space is superimposed

onto real-world space. In this way narrative time, which differs from real-world time, may be characterised in terms of its movement and relation of a particular space to other spaces. Hence, the actual physical structures of chronotopic spacetime can, in themselves, be regarded as semiotic and a rhetorical code to be sculpted by the artist. A particular dimensionality of space in instances of a 3-dimensional axis is the volumetric depth it affords. This extra depth restructures the relative arrangement of narrative space. Hence a commonality of 3-dimensional space is the dilation of 3-dimensional space both in terms of semiotic meaning and in terms of perceptual and experiential depth.

The index of movement is a useful method to explicate the semiotic nature of the depth in question. I have already referred to this as the temporality index. The temporality index pinpoints the specific configuration of chronotopic spacetime relations of any particular narrative. Similar notions have been proposed by other theories such as Enzo D'Armenio's 'kinetic syntax' (D'Armenio, 2022). Scott McCloud (1993) identifies the unique temporal index in comics and essentially builds on Will Eisner's description of time in the comic as 'illusionary'. Eisner (1985) infers that space-time in the comic is framed, effectively binding time as relative to other semiotic temporal stabilisers of the comics' diegesis. A prominent term for this in film theory that bears similar sentiments is Gilles Deleuze's notion of the time-image where an image is not only a depiction of space but simultaneously a depiction of a unit of time that the space accounts for, and that such movement is cinematically accounted for (Deleuze, 1989). Simply put, the movement of space in time is dramatically meaningful. All of these descriptions share the similarity that the delineation of time is artistically framed within the materialisation of the story. The temporal index speaks to the specificity of that frame and is calibrated to the specifics of a particular narrative instance over another, in which an index of space in time may not share identical dimensional relations. Hence, the real-world framing of space and time does not necessarily, if ever, correlate with that of an artistic depiction of it. The same concept is true in the case of narrative framing. Each is distinguished with a unique time-space equilibrium that can be conceptualised as a unique space-time stamp, a unique temporal index.

One need look no further than the temporal dimensions of comics and film storyboards that are often confused to be identical (Pallant & Prince 2015). However, storyboarding for film is designed to be used for rapid sampling of spatial movement, while comics form meaning through the capturing of relatively sparsely sampled moments. Generally speaking, each line of a comic is infused with a dilated spacetime potency as opposed to film. The translation of meaning from comic to film or vice versa does not organically work without mediating the temporality. Hence, storyboards and comics do not share the same temporal index.

The transition of stylistic meaning is also apparent in the rhetorical shift from silent film to the talkies. Silent film was effectively destroyed in the temporal shift with the inclusion of speech, which changed the ways that actors could act because it changed the way meaning was formed. “Actors no longer had to move gingerly or to slowly enunciate their dialogue, and the lugubrious pace of many early talkies gave way to a livelier rhythm” (Bordwell & Thompson, 1994, p. 219). The temporal shift pierced a hole in audience expectations and eventually destroyed the silent film genre. However, this raises another point worth mentioning. The ‘destruction’ was of the market and business models and not necessarily the meaning model of the art-form. The fact that the art-form fell out of favour means that it lost market relevance, which is a separate issue from its artistic ability to weave meaning. The same is true for current reiterations of augmented reality, virtual reality and meta-verse related issues, where market adoption is not necessarily synonymous with the meaning-making process of immersive enabled rhetoric. The reason I am momentarily detouring this conversation from meaning-making to marketability of meaning is to establish that these are two different points with two different trajectories. We want to separate the form of meaning-making from the market to avoid confusion. This article chapter is a theoretical intervention on the issue of immersive media in Africa and as such focuses on the process of meaning, not on what sells. Turning attention back to aesthetic decisions which redesign the narratives’ temporal meaning field, we have seen similar temporal redesigns in ‘mini jumps’ in many instances. Many of these mini shifts go unnoticed by mainstream audiences as they often do not get the financial backing

they require, they are seen as too expensive with no obvious monetisation options or some other market-related reasoning. In short, some of these inventions remain relatively underground and underdeveloped when compared to mainstream media infrastructure. Billions of dollars have been invested into immersive outlets which have been disbanded, discontinued or strategically remodelled. Industry failures are too many to mention. Virtual reality developments, for example, dates back to the sixties (Ponto, et al.) and has battled to find its feet in the commercial sector. While currently holding some traction in virtual reality (Lang, 2020), the space still seemingly continues up to present day with media reports constantly slamming the adoption of the metaverse (Ortutay, Rapoza; Horwitz, et al. 2022). In the augmented reality field, Magic Leap has bled through billions of dollars with little market relevance to show thus far. Digital comics company, Madefire, introduced the concept of motion books, in which the ethos was to redesign comics to work succinctly within a digital landscape. Despite the high quality of content, the platform was not commercially successful (Ha, 2021).

Certain other translation discussions in the field of digital narrative include 2- to 3-dimension film (ITRI, 2011), digital colour timing in film, and the continued development of volumetric filmmaking. These ‘mini shifts’ are interesting as they inevitably bear comparison to the original to the design of 2-dimensional logic. They rarely are understood as entirely new media and are often dismissed as a gimmick of sorts. The design accompanying such incremental shifts tends to be applied with a recursive theoretical model rather than being entirely rethought. I believe this non-committal attitude is part of the reason why certain immersive innovations are often discounted as gimmicks. A quick-fire case study might consider James Camerons’ *Avatar*, recently reclaiming the highest box office of all time (Colbert, 2022). The film was natively authored and released in 3-dimensions yet, in general, the genre was still not natively authored in 3-dimensional form conception with 3-dimensions only being implemented in post-production (Devlin, 2022), a case of artistic add-on, not of fundamental redesign which would suit 3-dimensional strategies (Weetch, 2016, p. 6). Manufacturers of 3-dimensions

cameras at the Industrial Technology Research Institute reiterate the need for mediation of the temporal disruption of 3-dimensional film in its production as hard and needs to be rethought, 'It is not just taking two cameras and shooting movies' (ITRI, 2008, p. 44).

Similar observations in the nature of adoption of new trends and inventions have been extensively noted by Doloughan (2011), Ogburn (1922) and Heer (1982), to name a few. These observations and their effect on artistry can perhaps be summed up by McLuhan's statement on the shift from mechanical to electric technology that suggests that within these cultural disruptions, societies tend to provide the right answers to the wrong questions. "The older training of observation has become quite irrelevant in this new time because it is based on psychological responses and concepts conditioned by the former technology—mechanisation" (McLuhan, 2001, p. 9).

These developments, however, offer early sinews of how their temporal rhetorics may be implemented into future productions once the relevant platforms find their feet. As such processes become increasingly sophisticated in their engineering and narrative design as they become part of accepted mainstream media (Tomaselli, 2015).

The importance here is on the 'mini jumps' effect on the temporal shift. The reinvention of temporality is also the reinvention of meaning. The non-committal nature of 'add-ons' inhibits the creative outlets such redesigns warrant. We tend to think of immersive add-ons as an extra layer of codes onto a bedrock of petrified meaning. However, this limits the potential form which does not consider the affordances offered by the new depth.

Temporal shifts connote less an analogous solidified layer of rhetorical dynamics and more as a fungible liquid, the form of which remoulds the configuration all 'layers' of dimensionality within it. Every 'layer' reformulates the temporal dynamics of the space and subsequently reformulates meaning. Again, I draw on the example of how this trend manifested in the shift from silent film to talkies. In that instance, the extra layer of speech did not add to, as much as it redesigned, the film genre. As in the case of silent film, the commonality of the 'add-ons' is attributed to the temporal

index. All these slight temporal shifts have ripple effects on the meaning of films. This example is akin to Lessing's cornerstone studies on spacetime and form in the Laocoön sculpture, in which Lessing jumps ships entirely between the media of painting and sculpture, and in doing so, the temporality index becomes pronounced. This is analogous to the comparison of poetry with painting. In comparison with poetry, which delineates through a series of moments, in the temporality of the painting everything must be conveyed within a compressed moment of spacetime: "Whereas poetry can depict pain in its entirety, throughout its successive stages, the visual artist, due to the nature of his medium, must pick a 'privileged moment'" (Wallenstein, 2010, p. 5). The relative artistic, aesthetic differences in form which give meaning to shape between the painting and the Laocoön sculpture can be attributed to their temporal indices. In painting the temporal index is contracted with larger movements forming meaning within one frame. In poetry meaning is designed to form through the passing of time, thus dilating its temporal index. In the painting, as is also the case in silent film, the acting become larger, whereas in poetry movements are generally more subtle. This illustrates the relation between the temporal index and the meaning fed through the aesthetic articulation.

The temporal index of 3-dimensional narrative

The term temporality index, as a concept, is agnostic to medium and is a characteristic of any narrative instance, including those of a 3-dimensional nature. Ultimately any narrative, whether born of a 2-or 3-dimensional alignment exists in a temporality bound to the timeline of its particular diegetic syntax. Space and time become coalescent in a particular manner to a particular story world. A common trend becomes apparent: those narratives that have spatial designs configured along three dimensions often share similar spatial-narrative characteristics which pressure the fundamental redesign of narrative strategies when compared to those of 2-dimensional compressed space.

It can be difficult to identify how such dilated dimensionality affects the immediate experience of a narrative when canvassing its form in abstract progression over the totality of its timeline. Where do Lessing's

changes in temporal dilation of immersive narratives situate themselves? How do they manifest?

The nature of an immersive experience in any instance is to integrate one into the fictional temporality, which contradicts the notion of conceptualising the abstract spacetime dimensionality from a distance. Meaning must sometimes be observed from a distance for its cosmology to become apparent. To conceive of narrative in such abstract terms of a spacetime temporality index, may cloud one's observation. This paradigm runs the risk of hiding properties of the message behind the relatable experience of the narrative space rather than the mechanics of the semiotic chronotopic metaphysical interconnections created by that same space. The nature of this temporal design makes it difficult to identify the cosmology of spacetime relations at hand as opposed to the narrative experience which speaks more directly to the human condition. But this is a necessary exercise if we are to infer relations between a dilated temporal index and methods of its narrative execution.

A potential remedy for binding material properties born of abstract temporal rhetorics with those of more easily identifiable narrative characteristics may lie in the analysis of the nature of its movement. Movement must negotiate the material of its spatial canvas in whichever form it is present. Simultaneously, movement also acts as an axis for both the semiotic nature of spacetime from which meaning is deduced, as well as a binder of aesthetic materials from which a particular timeline is composed. To zero in on movement as an indicator of a narrative's temporality I will employ D'Armenio's notion of 'kinetic syntax' (D'Armenio, 2022). Movement is a necessary instigator of a narrative to advance from one particular trajectory to another within a fictional timeline. Movement forces spatial-temporal relations to constantly recalibrate through a particular timeline. In doing so, movement has the ability to flush out how spacetime rhetorics can be 'seen'. To capture movement is to capture time (Corrales, 2015). To qualify here, spacetime rhetorics encompass the entirety of the narrative and subsequently account for all forms of meaning. Bakhtin would refer to chronotopes though thematic metaphoric overlays of spacetime relations where spacetime could be

considered as spatial tropes such as the castle, which often related to issues of dynasty, history, lineage, and hereditary rights (Bakhtin, 1984, p. 246). While this chapter also speaks of concrete material flesh, it differs from many of Bakhtin's chronotopes in that the focus of metaphorical material in this chapter is less on the broad thematic meaning and more on specific dimensional viscosity of the concrete flesh. As the narrative timeline expands and diffuses over a timeline from a two-dimensional line towards a three-dimensional blanket, so too does it materialise over a three-dimensional axis. The result is one of dilation of the narrative materialisation. If the nature of meaning is symbolically bound, and such semiosis is designed with three-dimensional depth, then the sign is in itself dilated, which in turn dilates its temporality index. Remember now, how this rhetorical effect can be 'seen' is in the nature of movement between configurations of objects within a narrative timeline.

Turning now to characteristics of how dilation may be 'seen' when adhering to narratological needs, I will consider some common characteristics of 3-dimensional narratives. In general, a dilated temporal index characterises a slowness in movement and space. This factor sets into motion a cascading 3-dimensional domino effect that when combined with the needs of narratology results in at least two provisos feeding into each other. I refer to these as:

- Identity text
 - Sensory text: 'Umveld'
 - Agency & Affect
- Embedded text
 - Co-generation
 - Ludo-narrative dissonance

Identity text refers to the idea that 3-dimensional space tends to implicate the body as an agent in the process of story progression. Whereas 2-dimensional narrative practises a more distinct separation

between body and mind in the immersion process, in instances in which narrative is scattered along three dimensions, the text becomes interwoven within the body itself. Embedded text refers to the nature of progression where movement of the audience is enticed towards the text. In two dimensions, movements of the textual semiotic object advances towards the spectator. In 3-dimensional deeply volumetric narratives such as augmented and virtual reality, as well as narratives of a 3-dimensional axis such as third-person video games, the actor moves towards spaces of textual significance.

Identity text

In 2-dimensional framing, the audience is distinctly separated from the narrative world. The story 'world' lives inside a frame, separate from the world of the audience. In cases in which the narrative timeline is spatialised over a 3-dimensional axis, depth takes on real world spatial properties which interpolate the physicality of the reader as a textual component into the story (figure 1). Thus, there is a natural affinity to semiotic absorption through physical stimulation of bodily senses. A redesign of one's narrative semiotic umwelt occurs. Once this occurs, the reader becomes part of the meaning-making process that they are observing. They redefine their relationships to agency, interactivity, participation, and affect. This proxemic shift to the narrative world dramatically reshapes how space forms meaning. The physical relationship that one experiences with space changes the way it is engaged with it and subsequently the way it is understood.

In the South African based visually multimedia hybrid virtual production which contains a reality component, *The subterranean imprint archive*, forms meaning in part through the transportation of the visitor (Künste, 2021). In two dimensional film grammar, for example, a transportation from one place to another is typically referred to as a 'cut' (Proferes, 2005), where it is the content that shifts. In immersive media such as VR common terminology generally assumes that it is the participant or the consumer of media whose space shifts, rather than the content. The project



FIGURE 1. ABOVE ILLUSTRATES THE AUGMENTED REALITY VERSION OF THE 2-DIMENSIONAL IMAGE ON THE LEFT INTO A 3-DIMENSIONAL “REAL WORLD” SPACE ON THE RIGHT.

Source: author

itself is rhetorically articulated on the remapping of spaces throughout the mimetic discourse of the experience.

The interpolation of a body into spaces of depth realigns processes of affect and emotion, ordering textual space to become ‘personable’. In 2-dimensional narratives impulses are stimulated through cognitive processes interpolating and interpreting audio-visual signs. In volumetric dimensions these narrative impulses show a greater affinity to stimulate responses

through the medium of bodily physical senses. Thus, physical senses become deeply immersed in cognitive processing of narrative impulses. The need to physically react combined with a sense of immersion indicates that sensory functions and issues around agency affirm potency in meaningful textual production. Textual function becomes implicit in the integration of psychological, physiological, physical and proximal spaces in their mimetic discourse. The reader/agent becomes part of the meaning-making process they must identify with. The function repositions the audience role from active observer to observational actor. Personal identity becomes tempered with textual function in which participants become interpolated into the acting process, and with-it agency merges with intimacy.

‘Agency’, like ‘interactivity’, is a loaded term in discussions on new spaces as they mean different things to different people. To qualify the term, I refer to it here as “the ability to affect and the ability to feel affect” (Stern, 2013, p. 181), which is subject to a myriad of factors. The factor I am concerned with here is the relationship of 3-dimensional navigation to embodiment, which opens at least one door to the factor of presence or ‘being there’ and exerts an immersive nature on the way the text is consumed. In doing so agency becomes implicit to the textual function of one’s relationship with the story space. Character and event projection become consumed with character experience. The agency provided by immersive presence seems to manifest in issues of proxemic negotiation and identity. Actions and reactions stimulated by a narrative are negotiated through the subjectivity of a physical agent.

In ludology, agency could be in part attributed to the objectives associated with game design. However, in immersive experiences agency is built into the spatial configuration that involves embodiment, even in designs where there are no typical ludic objectives. In a recent study conducted in such instances concerning virtual reality walking simulators, the authors concluded that sensory behaviour subsumes this textual functionality (Ng & Carter, 2022, p. 6). This action means that an innate degree of agency is still alive. If it were not, there wouldn’t be any subjective arrangement of how the space was experienced. Thus, navigation of the third dimension

cascades into agency issues associated with embodiment, which naturally extends to signs being absorbed through sensory functions.

Temporality tends to be anchored in the physicality of a physical embodiment within character, even if that character is only a voyeuristic physical entity. The temporal index must be tempered through the body and subsequently, rhetorical space becomes filtered through physical senses. This direction then suggests that narrative will in time, likely pervade through senses beyond the common technologically confined audio-digital-movement-interactivity. Notably, this suggests that the inclusion of other immersive 'layers' such as tacesics and olfactory systems will become integrated into the mesh of future temporality indices (Doloughan, 2011, p. 65).

There is a cascade of narratological implications that arise from this. Before these issues are dissected, it is important to contextualise that these characteristics are not hard and fast rules. They are more akin to clusters of narrative strategy that arise from their dilated 3-dimensional forms of immersive natures. For instance, despite video games being designed for a 2-dimensional screen, many games 'think' in three dimensionality, albeit that they are accessed through a window. Hence in third, person gaming embodiment is a rhetoric but with less sensory potency than virtual and augmented reality.

Sensory text

It is worth remembering that narrative is ultimately a strategic system designed to dramatically move one through a spacetime continuum. One needs to experience a roller coaster of emotions navigated through dramaturgical structures. All substructures within the temporal continuum can be considered as narrative codes indexed to the bidding of an overall strategic architecture. We can group this on one hand simply as 'narrative'. On the other hand, there exists a relationship between depth, dilation and immersion. One could make the argument that no fixed relationship necessarily exists between these two concepts; short impact narratives with a relatively contracted temporal index may offer a high degree of narrative immersion. However, the nature of dilation in itself propagates immersive

tendencies. As a timeline slows down, the ability for a high density of information becomes increasingly absorbable. Thus, a relationship exists between high density, its temporality and their rhetorical proficiency towards immersion. The virtual reality production TRVLR (pronounced traveller) for example, depicts African migration. The immersive nature of VR as anchored through a rich sensory digestion renders the concept of migration as weighted heavily on the physical experience of one's personal experiences. This rhetoric utilises the immersive nature of the form, and speaks to the stance in a journey where the subject becomes one with their subjectivity. The name itself is indicative of a rooting which speaks to the integration of the sensory in line with the method of narrative consumption, TRVLR (traveller), rooting the physical and identity with the form of the narrative's consumption. It is sensory and linked to affect that migration is experienced physically which is what immersive media retains the ability to impose. Likewise plot progression relies on the interaction of identity and physical and sensory based manoeuvrability in the inaugural issue of *Children of Xaphan* entitled *genesis untold*, among the early prelaunch of the augmented reality enhanced cinematic comic book at Comic Con Africa held at Johannesburg convention centre 2022. In order for the story to progress the reader must 'choose' to enter the book and thus physically engage the process. The unfolding of the plot in the comic relies on the subjective stance to engage the plot merging physicality with the narratological structure. Hence the plot is furthered by the immersive nature of the narrative.

Furthermore, the process of filtering narrative codes through an agent tends to stimulate a calibration of affect (Doloughan, 2011; Stern, 2013; Kumpulainen et al, 2020, p. 7). The process of personalisation associated with immersion through personal affect is a deeply intimate form of communication which brings the body, the mind and the psyche to the forefront of being scripted into narrative codes. Thus, it follows that in cases of immersive depth that sensory functions become hyper-textual. Emotional responses are not limited to cognition but may extend to sensory and emotive (Ryan, 1999, p. 111; Kumpulainen et al, 2020, p. 9).

The depth of audio-visual information and the agency of presence in some instances pressurise immersive tendencies which may confront situations in which actors of a narrative may feel the need to dissociate. Typically, narrative strategy is to immerse one into a story world. The idea of a mandatory participation to necessitate narrative leaves little room for one to opt-out of a required virtual reality sequence (Newton & Soukup, 2016). Similar observations have been noted by designers for augmented reality game Dr Grordbort's Invaders, and speaks to a sense of vulnerability where characters invade personal homespace (Magic Leap, 2018) Jenna Ng and Richard Carter make reference to instances of virtual reality walking simulators in which they 'heighten sensory inputs', which inherently become part of the subjective process, described as 'affective entanglement' (Ng and Carter, 2022, p. 6) and affective "feeling-tones" (Ng and Carter, 2022, p. 6). Reiterations of such affect, identity and sensory overtones instigating meaning-making processes in other 3-dimensional spheres such as augmented reality, have been suggested by other scholars (Kumpulainen et al, 2020). Hence the story is presented at a more gradual rate, requiring all narrative events to be calibrated as such.

Embedded narrative

A common story device in the agency afforded to space has been well established in ludology, of what Jenkins refers to as "embedded narrative" (Jenkins, 2004, p. 126). In immersive narrative there is the potential for Embedded text to intersect with the agency of identity text. In these instances, pathways may often be woven into a narrative fabric to entice the agent towards spaces of narrative relevance. This is an example of how signs are activated. The semiotic object loses aggression while the agent is empowered with the rate of its digestion. The actor becomes more aggressive in seeking out the sign while the sign becomes more aggressive in its being sought. Embedded narratives rely on discovery processes to entice advancement towards narratively charged spaces (Liu, 2020, p. 31). In an effort to avoid narrative clutter and keep the text relevant to the plot, methods of salience and wayfinding enable narratively relevant pathways. In VR instances the focal shift of directed attention has been identified as 'gaze' (Dooley, 2021).

Hence, ergonomic architecture should also follow an invisible narrative hierarchy. Jenkins considers the role of the storyteller in gaming as a form of ‘narrative architecture’ (Jenkins, 2004, p. 129). One particular response to this is the notion of arranging space through centripetal decay in a salience seeking manner though embedded narrative has been proposed by Newton and Soukup (2016) as the ‘matador strategy’. Here the audience is expected to actively pursue the narrative information, only to have further obstacles presented. Jenkins suggests salience may be achieved through leaving ‘crumbs’ (Jenkins, 2004, p. 126) with similar observations from other scholars (Ng & Carter, 2022). Kumpulainen refers to instances of augmented reality in which ‘entry points for participation’ are created thus situating agency in “roles of investigators, authors, and change agents” (Kumpulainen, 2020). Unfolding of narrative actions have been described as “action texts” in augmented reality (Kumpulainen, 2020). In the virtual reality experience, Newton and Soukup (2016) concluded that participant reactions to a plate of half-eaten cookies translated into a “search for meaning” (Newton & Soukup, 2016). “Once the audience fixated on the cookies, they retreated into their heads and began asking themselves questions – so many questions that in the debrief they described themselves as ‘detectives’” (Newton & Soukup, 2016). Thus, the role of the audience “seems to transverse from passive ‘observer’ to the more active state of ‘influencer’, contingent on to the concept of agent (having impact on the story, but not changing the outcome of the narrative)” (Newton & Soukup, 2016).

The link between dilation and embedding has been noted by under the terms ‘slowness’ and ‘reading’ (Ng & Carter, 2022). Slowness speaks to the nature of movement in a dilated temporal index while a reading originally referred to by Colthup (2018 cited in Ng & Carter 2022) speaks to the nature of ‘temporal flow’ which describes process discussed here as ‘embedded’ “emphatic offerings of spatial and temporal dimensions may function as sites of meaning” (Ng & Carter, 2022).

Co-generation

A trend of offering agency is the ability of imprints of personal creativity upon the narrative process. The scattered nature of internet related

applications, that is social media which service user generated content in general serve as a good example of ‘self-expression’. These enable auto-ethnographic creativity at the cost of a cluttered uncultivated ‘low culture’ narrative, which has emphasised the attraction of shareability. Similarly, the internet began with web 1.0 as a single one-way form of communication which attempted to digitise the analogue mass media landscape of previous decades, until realising the needs for the social commentary demanded by users, previously impractical, spurring a shift to web 2.0 and the rise of ‘interactivity’ (Sykora, 2017). This is one of the common critiques about the market failure of mobile streaming service of ‘Quibi’ (Failory, 2020; Alexander, 2020; Hersko et al, 2020). In its failure to attain a sociability index as part of its grammar, Quibi neglected to afford audience expression to its users, which has become an expectation with short form mobile narrative. As noted in augmented reality studies, the rise of agency leads to a need to not only participate in stories but to share the participation (Kumpulainen et al, 2020, p. 2), which explains the popular rise of social media reaction videos.

Apart from ‘shareability’ and self-expressive generative meaning situated outside of an authorial diegesis, issues of meaning become integrated directly into the fictional diegesis of narrative and subsequently embedded into the methodology for plot propulsion. In augmented reality studies rhetorical agency opens the door to ‘co-generation’ of meaning in which the whole data corpus intra-acts together to create meaning (Kumpulainen et al, 2020, p. 5). Similar notions have been echoed in meaning making process in personal enactors as a ‘joint transactional space’ (Dooley, 2021) between subjects. In VR and AR settings these ‘transactions’ are considered between user and content.

Similar observations for the need of co-generation have been noted in 3-dimensional texts and have also been observed in virtual reality instances (D’Armenio, 2022; de la Fuente Prieto et al, 2022). The instances are again reiterated by the South African based Lo-Def Film Factory emphasising meaning of co-creation such as ‘collaborative, experimental community storytelling’ (Mngxitama, 2021), and exemplified in the companies production *The subterranean imprint archive* described as “It stood out

with its collaborative, co-creative process, rooted in community, in the making of the work itself.” (Kopp, 2022)

Co-generation invites other narratological concerns. If it is the case that subjective control of narrative is contingent on agency, then there is no mandate for the narratological devices such as those discussed through strategies of embedded narrative to abide by. In these instances, temporality may be hijacked by the agent. The temporal index yields its control to the agent. Narrative strategy assumes that one responds to an authoritative narratological orthogenesis, yet the agency involved may allow for the destruction of skilled dramatic execution. This concept has been recognised as ludo-narrative dissonance, in which both the needs of gameplay mechanics and narrative compete, with one often mitigating the other. Roger Ebert contended that “video games by their nature require player choices, which is the opposite of the strategy of serious film and literature, which requires authorial control” (Ebert 2005, cited. in Juul 2018).

This observation is reiterated by Jenkins and Costikyan (Costikyan, 2000, cited in Jenkins, 2004, p. 118). Ryan voiced concern with narrative mitigation through agency stating that “[t]he problem with the audience as active participant idea is that it adds to the clutter, both psychological and physical” (Ryan, 1999, p. 122), and that “[t]he caveat of putting spectators on stage is that if they take control of the action, their resulting performance may become utter chaos” (Ryan, 1999, p. 122). This instance makes reference to a process where audience members are brought onto stage to participate in a performance with no clear plot objectives, which is the antithesis of a well-structured narrative. The dramatic consequences of a user-centric exposition have been noted on their effect in virtual reality. Transmedia director, Anrick Bregman, identifies a dramatic bottleneck of interactivity: “[g]ames and interactive films always struggled with this issue: serious emotions are hard to evoke” (Bregman, 2016).

The notion of clutter as a distraction to story immersion has been reiterated many times over in practice principles for narrative design, “[a]ll non-essential plot activities are temporarily suspended during mandatory

plot advancement” (Interactive Storytelling Tropes, 2017). Or, as Instructive Level Design (2017) argues,

Designers want the player to focus on learning something that could potentially be very important, so instructive level-bits will often contain a small number of elements. They don’t want you to be distracted by the nice way the light shines through the trees over there, or whatever.

Similar to instances of gaming mechanics at odds with narrative needs, Newton and Soukup (2016) reported instances with narrative when spreading information through 360-degree space, which they described as more immersive but less narratologically focused than spaces limited to 90-degrees. The latter increased the potency of embedded textual functions. Hence immersion retains the narratological benefit of situating participants deep into the mimesis of its temporality, while bearing the risk of distraction from spaces of narratological relevance. A key characteristic of embedded text is that it tends to entice movement towards objects of narrative interest as opposed to said objects advancing towards the audience.

Conclusion

Three dimensional immersive media tends to be an organic characteristic stemming from the relations between imagery and narrative. Hence the forms of the narratives unfolding of plot must take into account the dimensionality of the space. In immersive media of a three dimensional nature above I have illustrated that relationships between time, space immersive and narrative interactions correlate with the between the dilation of semiotic space when materialised over 3-dimensional space and common methods of its engagement such as those concerned with identity and embedded text, the former of which includes sensory text. The design of narrative access tends to interpolate the story participant into the narrative world in a physically assertive manner casting the implications of the narratives unfolding. Specifically this chapter considers how this orientation invites meaning making through sensory and emotional proximity to the narrative enquiry. These narratological devices have been explored

internationally as well as in local productions of an immersive nature as evidenced in the South African multimedia virtual reality production, *The subterranean imprint archive*, the VR based Zimbabwean production TRVLR as well as the South African production AR enhanced comic book, *Children of Xaphan: Genesis untold*.

This affords a conceptual framework that is based on a spacetime-first theory in which other frameworks intersect, thereby potentially developing narrative-first principles of how to effectively engage within a 3-dimensional space. By considering the temporal index of a material narrative one may be able to relate storytelling methods to spaces informed through emerging technologies such as augmented and virtual reality, and 3-dimensional gaming.

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IMMERSIVE EXPERIENCES FOR ENVIRONMENTAL AWARENESS

Bianca Suárez-Puerta

This chapter analyses how 360° expanded narrative can sensitise viewers to the single-use plastic pollution crisis, using semiotic tools to unravel the meanings created along the plastic's journey. Following its path from the city to the shores of Colombia, the analysis employs Algirdas Julien Greimas' narrative theory and his actantial structure, breaking down the plastic's journey into narrative stages that capture the roles of actants and the tensions between sustainable and consumerist practices. In addition, Henry Jenkins' theory of transmedia narrative is incorporated, showing how immersive experiences allow the user to experience multiple perspectives, generating a deeper emotional connection with the pollution problem. Michel Foucault's concept of heterotopias is used to understand how different spaces (city, river, coast) function as alternative environments that provide meaning to the journey. At the same time, Félix Guattari's eco-philosophy offers an integrative ecological critique that connects the physical, social and subjective. Also included is Janet H. Murray's work on digital storytelling, which highlights how immersive experiences facilitate active user participation in constructing meanings, an essential approach to addressing sustainability and individual responsibility in the environmental crisis. This semiotic analysis concludes that 360° immersive experiences are potent vehicles for ecological awareness, inviting viewers to reconsider their role in the consumption cycle and environmental impact.

Introduction to the semiotic problem

The semiotics of narrativity is a field of study that examines the structures and mechanisms through which narratives are constructed and understood, exploring how deep and complex meanings are created through language and signs in different cultural and communicative contexts. One of

its founders, Algirdas Julien Greimas (1983), developed a structural theory of “actants”, figures that represent the forces at play within a narrative, which structure the development of stories beyond specific characters. Greimas proposes that “actants” (subject, object, addresser, recipient, opponent and helper) act as poles of meaning that organise and give coherence to the story, allowing narratives to mobilise meanings through semantic and structural oppositions inherent to the stories.

From this perspective, the semiotics of narrativity explore traditional stories and how contemporary experiences, such as expanded and transmedia narratives, construct meanings that interpellate receivers in new ways. In Eco’s work on the interpretive cooperation of the reader, Umberto Eco (1979) explores how narrative texts communicate information and generate spaces of active interpretation where readers or viewers complete the story’s meaning. In an expanded narrative context—such as virtual reality or 360° immersive experiences—this participation becomes even more dynamic as the user interprets and navigates, choosing points of view and paths, which modifies their expertise and understanding of the story (Murray, 2017). In expanded narratives, the user’s ability to navigate and choose perspectives transforms their knowledge of the story and introduces a deeper ethical and semiotic interaction. As Murray (2017) points out, this narrative technology replaces fixed meanings with variable possibilities, allowing users to construct and reconstruct meanings actively, reflecting digital narratives’ multifaceted and fluid nature. Janet H. Murray (2017) argues that contemporary digital technologies enable users to experience narratives in highly interactive and ethically complex ways, which expands the scope of narrative semiotics as these narratives “replace fixed meanings with variable possibilities.” The 360° immersive experience, for example, allows users to follow a story and feel part of it, which can motivate critical reflection on issues such as environmental sustainability. In this sense, the semiotics of current narrativity adapt to understand how these platforms and their forms of participation transform meaning, appealing to the sensory and the emotional to involve the viewer in an experience of expanded meaning in which each choice opens a field of interpretation and reflection.

This critical approach to narrative semiotics becomes relevant in the contemporary environmental context, where immersive stories can foster active awareness of global problems such as plastic pollution. Thus, through narrative interaction in an expanded experience, the user is invited to an interpretive and ethical position, aligning the semiotic sense with social and environmental responsibility. The semiotics of narrativity is presented as a fundamental tool to explore the impact of single-use plastics on the environment by articulating a story that allows us to understand and reflect on the effects of pollution. In the context of Colombia and a planet increasingly affected by excessive plastic consumption, this semiotic analysis focuses on the journey of plastic through an expanded 360° narrative focused on environmental awareness. By integrating immersive experiences, such as in the 2023 “Anti-Plastic Squad” project, this expanded narrative offers a virtual reality experience that guides users through the various stages of the plastic journey, from its production and use in cities to its arrival and accumulation on the coasts. Through this experience, participants are invited to reflect deeply on the devastating impact of hydrocarbon-derived polymers on ecosystems, highlighting the urgency of a change towards sustainable practices and environmental awareness that promotes the reduction of the use of these materials.

The proposal is a form of metaverse, a post-reality universe which merges physical reality with digital virtuality. It uses virtual reality (VR), allowing multi-sensory interactions with digital objects such as animals and plants in a virtual environment. The plastic-free metaverse is incredibly impressive, as it consists of a complex network of interconnected virtual objects in which Colombian children can interact in an immersive way. It is a powerful metaphor for the real Colombia, where the user has the option of going on an expedition to the most emblematic landscapes of Colombia without the physical limitations of being able to move around the territory, in addition to allowing imagination and the metaverse to enable an experience without the environmental problems associated with the use of plastics. In these innovative scenarios, children can travel virtually, choose to avoid plastic consumption, and set a new course towards a more sustainable future.

The characters in the story are Lucas, a boy who loves football; María, a girl who loves cooking and healthy living; and Juan, a curious and sensitive boy about science. The three of them, fortuitously, lose some plastic dragged into the sea, harming marine life. In the ocean, plastics suffocate the life of a whale, a coral and a turtle. The characters can continue the experience without plastics when seeing the animals suffer. There, they enter a Colombian scenario free of Plastics. In this alternative world, marine life is not in danger, and they learn new, more environmentally responsible habits while they get to know Colombia.

Since Colombia is the second most diverse country in the world, with coasts on the Pacific and Atlantic oceans, as well as enormous rivers and springs, it has a massive diversity of fauna and flora that we could extinguish if we do not take urgent action. Protecting our natural resources and being aware of the severe consequences of using plastics is vitally important. In addition, Colombia ranks 1st in the world in orchids, birds and butterflies, 2nd in the highest biodiversity in the world in plants, amphibians and freshwater fish, 3rd in palm and reptile species and 6th worldwide in mammal biodiversity. This diversity is due, among other things, to how its freshwater sources reach the ocean. Colombia is one of the few countries with coasts on the Pacific and Atlantic oceans. For this reason, the project is aimed primarily at adolescents between 7 and 18 years old, seeking to impact the unique curiosity in children and adolescents and thus enrich their experiences with ideas for transforming Colombia into a more sustainable power. Through participation and commitment, the children will use this knowledge to face current environmental challenges.

Including young people in climate action is essential to promoting sustainable development and confronting climate change, and education plays a crucial role in this process (Unesco, 2019). Immersive projects incorporating aesthetic experiences, such as the “Anti-Plastic Squad,” can profoundly impact young people. By participating in 360° virtual environments, they experience the effects of plastics on the environment. According to Murray (2017), immersive and expanded narratives allow users to interact ethically and meaningfully, facilitating a change in perspective and behaviour.

Despite their growing interest in climate change, young people are still treated as passive beneficiaries rather than active actors (Boehnert, 2018). Virtual reality in projects like this provides an “open narrative” where users can explore environmental consequences and make decisions to mitigate damage, strengthening their role in climate action (Ryan, 2015). Through scenario simulation, young people experience the impact of plastic on diverse ecosystems. By clicking on the option for a “Colombia without plastics,” they can see how the scenarios are transformed into bionatural environments.

Regarding pro-environmental behaviour, biospheric values and ecological identity are essential drivers for promoting sustainable actions, particularly among youth (Schultz, 2020). Recent studies have demonstrated that virtual environments can effectively shape these values by providing immersive experiences that foster greater environmental sensitivity, especially in adolescents (Otto & Kaiser, 2021). These immersive experiences can create significant emotional and sensory impact, making them a powerful tool for instilling pro-environmental behaviours such as recycling and responsible consumption. This insight suggests that policies integrating immersive technologies can play a crucial role in shaping pro-environmental behaviour among young people, aligning with the theoretical frameworks of semiotics and narrative structures.

The semiotic potential of immersive storytelling is particularly evident in initiatives like the “Anti-Plastic Squad,” which employs an “expanded narrative” approach (Murray, 2017). By engaging participants in an interactive and multisensory journey, these immersive interventions provide symbolic and sensory experiences that actively involve users in interpreting environmental issues. From a semiotic perspective, the immersive narrative of the “Anti-Plastic Squad” amplifies understanding by offering users the agency to make decisions and navigate ecological challenges, ultimately fostering a critical awareness of plastic’s destructive impact on ecosystems. In line with Carlos Scolari’s (2013) concept of trans-media storytelling, these experiences emphasise narrative intertextuality across platforms, encouraging participants to engage with the story on

multiple levels and fostering deeper cognitive and emotional connections to the subject matter.

In this context, local governments are crucial in reinforcing youth-led initiatives to scale up climate action. As plastic pollution originating from cities like Bogotá continues to wreak havoc on marine biodiversity, its mitigation demands informed collective decisions. Rangel-Buitrago et al. (2023) point out that the “Plasticene” era is defined by the pervasive influence of plastics in terrestrial and marine cycles, posing severe risks to public health through toxic additives and pollutants. By embedding policies encouraging immersive technologies, local governments can better engage the public in the urgent need for collective environmental action.

Furthermore, virtual reality experiences make the cumulative effects of plastic pollution on marine life tangible and accessible, creating a “narrative awareness” (Ryan, 2015). This concept, rooted in semiotics, emphasises how storytelling in immersive environments transforms young people into witnesses of the environmental crisis, prompting them to adopt the role of change agents. These experiences reshape participants’ relationship to the issue through sensory and symbolic involvement, enhancing their ecological identity. The “Anti-Plastic Squad” initiative exemplifies this approach by introducing environmental education at an early age, fostering an aesthetic and symbolic connection to the urgency of climate action. Therefore, this narrative educates and mobilises participants, encouraging them to take personal responsibility and engage in collective efforts to combat environmental degradation.

Immersive virtual experiences, as demonstrated by the “Anti-Plastic Squad,” offer a robust, semiotically rich medium for fostering pro-environmental behaviour. These experiences engage multiple semiotic channels—visual, auditory, and emotional—to create deep, lasting connections to environmental issues, making them an effective tool for educating and mobilising young people in the fight against plastic pollution. As Scolari (2013) and Jenkins (2006) have shown, narrative frameworks facilitating active engagement and decision-making are critical in shaping how individuals perceive and respond to environmental challenges,

making immersive storytelling an essential part of contemporary ecological education.

From the semiotics of narrativity, the analysis of immersive experiences on sustainability and environmental impact offers a critical approach to understanding how meanings are generated and communicated in complex and multisensory contexts. The fundamental concepts of semiotics allow us to decipher how, in an expanded 360° experience, the journey of plastic from the city to the Colombian coast becomes a story loaded with ethical and symbolic values. According to Greimas (1983), the actantial structure reveals how narrative elements can represent conflicting forces, such as excessive production and consumption versus ecological awareness, organising meaning based on semantic oppositions that the viewer can identify and confront. On the other hand, the idea of a “model reader” proposed by Eco (1979) allows us to understand how these narrative places the user in an active and reflexive position, inviting them not only to follow the journey of the plastic but to question their role in this environmental problem. Within this framework, Murray (2017) argues that immersive digital narratives allow the user to explore ethically complex situations, transforming the experience into a space for dialogue between the individual and the environmental context they observe. Thus, the semiotic approach in this analysis aims to examine how this expanded narrative not only represents the journey of plastic but also builds a critical discourse on sustainability and promotes introspection on the impact of humans on ecosystems. Semiotics, therefore, become a crucial tool to unravel the layers of meaning that emerge in this experience, helping to make visible the role of narrative in raising awareness towards more sustainable and environmentally responsible practices.

Theoretical foundations of the semiotics of narrativity

Narrative semiotics is an analytical approach that explores how narratives structure meaning by organising their elements, allowing viewers or readers to actively engage in the interpretation process. This approach is based on the work of Algirdas Julien Greimas (1983), whose development of

actant theory and narrative structure provides a foundational framework for breaking down stories into forces and roles that interact within the narrative. Greimas proposes that narratives are made up of actants, such as subject, object, opponent, helper, addresser, and addressee, which operate as poles of signification that guide the viewer in constructing meaning. According to Greimas, these actant roles help structure stories by representing conflicting forces that drive the development of the plot. Pages 107-115 of her work are essential to understanding this theory, particularly applicable to analysing a 360° expanded environmental narrative, where each actant can represent different forces, such as human impact and environmental sustainability in the plastic path.

In this context, the 360° expanded narrative becomes a space of heterotopia, a concept introduced by Michel Foucault and used here to describe the “alternate spaces” or parallel worlds where reality can be observed and reflected upon from critical and transformative perspectives. This concept of heterotopia allows a 360° narrative to function as a space of confrontation and reflection, where the user can visually and emotionally explore the consequences of plastic pollution. By navigating the path of plastic from the city to the coasts, the viewer is invited to question their role in this problem, generating critical awareness through immersion in these “other” narrative spaces. In an expanded environmental experience, heterotopia becomes a vehicle to raise new questions and sensitise the user to the urgency of ecological, behavioural change.

Félix Guattari also brings a critical dimension to the semiotics of narrativity by connecting ecological, social, and subjective aspects in his work on ecosophy. On pages 27-39, Guattari argues that any ecological reflection must address the physical environment and the subjective and social dimensions, thus establishing a symbiotic relationship between the individual and their environment. This approach is fundamental in an immersive environmental narrative, as the experience of traversing the life cycle of plastic—from its production and use to its accumulation on shorelines—affects both the physical space and the subjective perception of the user. Including this approach in the semiotic analysis allows a deeper understanding of how an expanded narrative can influence the viewer’s

awareness of ecological damage and personal and collective responsibility in this environmental crisis.

In turn, Henry Jenkins, on pages 95-120, addresses transmedia storytelling and the idea of “expanded worlds,” a key concept for analysing how narrative experiences on multiple platforms or in immersive formats, such as 360°, offer the viewer multiple perspectives and a greater degree of emotional involvement. Jenkins’ transmedia storytelling allows a story to be explored from different angles, offering the user an active relationship with the narrative. In the context of an environmental crisis, a 360° experience provides the user with the possibility of understanding in an interactive and sensory way the different stages of the plastic pollution cycle, from its creation to its final impact on ecosystems, providing a more direct and more profound connection with the story.

Janet H. Murray brings another essential approach to this analysis in her discussion of the ethics of digital storytelling (pp. 265–278). Murray argues that immersive digital narratives can facilitate experiences of ethical complexity, where the user does not just observe but experiences a narrative from an active and reflexive position. This aspect is crucial in a 360° experience about environmental impact, as it allows the user to confront the decisions and consequences around plastic use, inviting them to ethical introspection about their role in sustainability. The narrative structure of these immersive experiences creates a space where decisions and environmental behaviour can be critically examined, providing a level of depth that expands the viewer’s sense of ecological responsibility. Finally, Umberto Eco introduces the concept of the reader model, which is critical to understanding how an expanded 360° experience guides the user in an environmental interpretation of the plastic journey. On pages 145–157, Eco describes the model reader as a subject who cooperates with the text to complete its meaning. This is essential in an immersive narrative, where the user acts as an interpreter and agent within the story. In the context of an environmental narrative, the user becomes an active spectator who goes through the life cycle of plastic, interpreting the effects of pollution and their actions in the face of the environmental crisis. This concept allows the expanded narrative to serve not only as a story about plastic but as

an experience of ecological awareness and a tool for transformation, where each user can discover and reflect on the impact of their own choices on the natural environment.

EXPANDED NARRATIVE IN 360° EXPERIENCES

Expanded narrative in 360° experiences offers an innovation in how we perceive and relate to stories. This type of narrative is distinguished by its ability to transcend the traditional linear structure, introducing a multi-sensory and spatial experience in which the viewer does not just passively observe. However, it becomes an active participant in constructing the story's meaning. According to Henry Jenkins (2006), in *Convergence Culture*, the transmedia narrative expands a story across multiple platforms, enriching the user experience by enabling them to interact and explore various layers of the story. Jenkins highlights that immersive spaces, such as those offered by expanded 360° narrative, broaden user involvement, allowing them to become more deeply involved in the narrative content.

Semiotic analysis takes on a critical dimension when this theory is transferred to an environmental context. The 360° experience applied to ecological issues allows visual immersion and an emotional and cognitive understanding of the environmental problem in real-time. For example, in a narrative that follows the journey of plastic from the city to the coasts, the viewer can experience, from different perspectives, the impact of pollution on ecosystems. In this way, the narrative is not limited to transmitting information but invites viewers to immerse themselves in the ecological context and reflect on their role within this phenomenon.

The semiotics of this type of experience is based on the relationship between the visual, auditory and spatial signs that make up the 360° narrative. These elements inform and generate a more visceral and subjective relationship with the story, transforming the viewer into an active interpreter of the story. According to Umberto Eco's theory of semiotics (1976), signs do not have a fixed meaning but rather acquire meaning in the context and through the viewer's interaction. In the case of a 360° narrative about pollution, the perception of environmental damage becomes a sign whose meaning is not only linked to the visual impact of pollution

but also to the emotions and reflections it evokes in the viewer. This process allows the story to develop not only on the informational level but also in the emotional and cognitive spheres of the user.

On the other hand, Félix Guattari's work on the "ecology of the mind" (2000) offers a key to understanding how 360° narratives address physical ecology and the subjective and social dimensions of environmental problems. Guattari argues that ecological awareness is not built solely from the physical experience of the environment but must involve a transformation in individuals' psychological and social structures. In an immersive 360° pollution experience, the visualisation of damage has cognitive effects and induces an emotional response that can alter the viewer's perception of their relationship with the environment. The viewer observes the damage and "feels" it, generating an informative and transformative experience on a personal and social level. The semiotic analysis of 360° environmental narratives demonstrates that the intersection of the visual, auditory and spatial generates an experience that is not limited to the passive reception of a message but invites the viewer to participate actively in the process of interpretation and transformation. In this sense, immersive environmental documentaries, such as those that address ocean pollution or deforestation, exemplify how expanded narrative can influence the viewer's perception. These experiences not only raise public awareness of the magnitude of ecological problems but also turn them into conscious actors capable of reflecting on their actions and consequences for the environment. In semiotic terms, 360° narrative allows the viewer to interpret the signs of pollution in a broader context, integrating their personal experience with the collective and planetary dimensions of environmental problems. The semiotics of expanded narratives and 360° experiences have been a fertile field for critical reflection on how storytelling forms evolve in the digital context, especially in immersive media such as virtual reality (VR). In this field, contemporary authors such as Espen Aarseth (2015), Marie-Laure Ryan (2009), and Carlos Scolari (2013) have explored how digital interactions and active participation of the viewer transform the way meaning is constructed in narratives, adapting concepts from the classical semiotics of Roland Barthes and Umberto Eco to new media.

First, Roland Barthes' semiotics in *Mythologies* (1957) focuses on how cultural meanings are constructed through myths, which can be understood as systems of signs that consolidate specific values or ideologies. This concept can be extended in immersive digital narratives by examining how digital platforms and 360° media create "new myths." Through active participation in the narrative, users become co-creators of these myths, which can redefine how meanings are constructed in the context of a narrated experience. As Aarseth (2015) and Ryan (2009) have argued, narratives in virtual spaces allow for a non-linear reinterpretation of stories, inviting the user to make semiotic choices that affect the course of the narrative. This type of interactivity implies that meanings are neither fixed nor univocal but result from a constant negotiation between the content and the user's interpretation.

In this sense, Carlos Scolari (2013) has underlined the importance of transmedia storytelling as a space in which narratives are deployed across various platforms, allowing meaning to diversify and stories to be fragmented across multiple access points. Scolari argues that this approach offers a dynamic and fluid experience in which the recipient consumes the content and actively participates in co-creation. 360° storytelling expands the narrative text, where the viewer is not a passive observer but a critical and active participant in constructing the story's meaning, which takes the narrative experience to a much richer and more complex dimension.

Henry Jenkins (2017), in his work on transmedia storytelling, also emphasises how expanded narratives in immersive media transform the role of the viewer, who ceases to be a passive recipient to become an active participant within a narrative universe that unfolds across different platforms. In this context, narrative semiotics are affected by the multiplicity of texts and meanings that coexist in digital space. According to Jenkins, the construction of meaning does not reside solely in the text or the story's content but in the dynamic interaction between different texts and the user's experience with the content. This underlines the importance of "narrative universes" and how users can modify and shape the story according to their interpretation, resulting in a deeply personalised and participatory narrative experience.

David Herman (2019), addressing narratives in emerging media, offers a complementary view by suggesting that new media allow for both individual and collective signification. Herman points out that narrative in these media is not simply a process of passive reception but a shared and collaborative experience where users actively contribute to the creation and resignification of content. Therefore, the semiotics of this type of narrative is a collective process of meaning-making, where each viewer becomes part of the narrative framework, transforming not only the structure of the story but also its cultural and social impact.

The analysis of 360° experiences in the context of semiotics is also enriched by studies by Christian Stiegler, who, in *The 360° gaze: Immersions in media, society, and culture*, examines how immersive media transform the relationship between the viewer and the story. Stiegler introduces the notion of the “gaze,” highlighting how the user’s perception is expanded within these digital environments, allowing them to observe, interact, and construct meanings. This approach creates a new semiotics of the gaze, in which the immersive sensory experience transforms the viewer’s relationship to the narrative space, making “reality” an object of observation and active and conscious intervention (Stiegler, 2019).

In turn, authors such as Taborda-Hernández, Rubio-Tamayo, and Rajas Fernández (2021) explore how virtual reality (VR) redefines storytelling by integrating the user’s interaction and point of view into the creation of the story. Direct interaction with content within an immersive space allows for a richer and more nuanced interpretation of meanings as users follow the story and experience it from within. VR turns the viewer into a co-creator of the narrative, redefining the signification process in semiotic terms by incorporating physical and emotional experience into constructing meaning.

Zilles Borba (2020) highlights how VR and immersive media shift the viewer from passive observation to active participation, transforming digital narrative by introducing a body immersed in a three-dimensional space. This shift involves a fundamental semiotic shift, in which the viewer is no longer in front of a screen. However, it is surrounded by the

narrative, allowing for a much more direct and visceral interaction with the narrative signs.

The semiotics of 360° expanded narratives redefine the relationship between text, medium and viewer, allowing for a richer and more complex experience in which meaning is constructed collaboratively and dynamically. Through interaction with the narrative elements, users do not simply consume the content but actively participate in creating and re-signifying the story. This approach is seen to be particularly effective in communicating environmental issues, as it allows for a sensorial immersion that informs and invites critical reflection on the impact of our actions on the world. Expanded narrative, with its transmedia approach and ability to engage the viewer's mind and body, offers a powerful means of raising awareness of ecological issues and promoting a change in public perception and behaviour.

Semiotic construction of expanded experience anti-plastic squad

The semiotic construction of a 360° experience that follows the path of plastic from its consumption to its arrival in the ocean represents a unique opportunity to apply complex semiotic theories, particularly Greimas' (1983) actantial structure and the semiotic grid, to unravel the underlying narrative conflict. This narrative structure organises the story's components and facilitates understanding the relationships and tensions between the forces at play, such as consumption, sustainability, and environmental impact.

The actantial structure proposed by Greimas allows the narrative elements to be interpreted from a role or actant perspective, facilitating an in-depth plot analysis. In this narrative, plastic acts as the object, the consumer as the subject, and recycling or environmental preservation entities are helpers. Throughout the narrative path, these entities intertwine to represent the human decisions that influence the cycle of plastic, from the moment of its consumption to its accumulation in the oceans. Following the actantial model, the narrative of this journey becomes a visual representation of how human decisions directly affect the final destination of plastic and, therefore, the environment.

The 360° narrative, due to its immersive nature, allows the viewer to interact with these actants and observe the various stages of the plastic cycle concretely. From its consumption, disposal, recycling and finally, its arrival in the ocean, each narrative stage reveals a new transformation of plastic, where it changes context and function. This transformation is visualised in each narrative and acts as a critical decision, where the plastic (the object) faces human interventions that transform it, either in a positive way, such as recycling, or negatively, such as waste and irresponsible consumption. The 360° experience exposes the viewer to these moments of decision, becoming emotionally and cognitively involved in the conflict between sustainability and consumerism, which is the backbone of this narrative.

On the other hand, Greimas' semiotic grid becomes an essential tool to map the conflict between sustainable practices and consumerism. This grid organises the opposing values into two axes: one representing "care for the environment" and the other "irresponsible consumption." By applying this grid in the 360° narrative, one can observe how the characters' decisions and human interventions are distributed around these two poles, affecting the evolution of the story. The narrative allows us to visualise how, at each step, individual or collective decisions alter the course of plastic and its impact on the environment, which turns the experience into a symbolic reflection of the power of human actions. In this sense, the semiotic grid highlights the tensions between the underlying values of the narrative conflict. It creates a context in which the viewer is directly confronted with his daily habits and decisions, inviting him to question his role in the environmental crisis. The symbology and visual elements in this 360° experience are organised to reflect the tensions between sustainability and consumerism and the global implications of these struggles. The ocean, as the final space of the narrative, becomes a symbol loaded with meaning, concentrating on the cumulative effects of plastic pollution. In semiotic terms, the ocean is a sign representing the culmination of the plastic cycle, transforming into an emblem of environmental degradation. Through immersive viewing, the viewer is confronted with a sensorial and symbolic interpretation of this conflict, which enhances emotional and critical understanding of the magnitude of the problem.

Within this semiotic framework, the grid also helps structure the visual meanings of the 360° experience, turning the narrative into a mirror of social and environmental tensions. The immersive experience allows the viewer not only to observe but also to participate actively in the story. This critical approach invites viewers to reflect on how individual and collective actions influence the environment. Each image and narrative act symbolises a more significant conflict, engaging the viewer in a constant struggle between consumption and sustainability. Thus, the narrative informs and acts as a call to action, inviting viewers to reconsider their habits and responsibility to preserve the environment.

The semiotic construction of the 360° experience depicting the journey of plastic is a profound exercise in narrative analysis that employs the tools of actantial structure and Greimas' semiotic grid to unravel the complex relationships between the values of sustainability and consumerism. This immersive narrative offers an experience that reflects the complexity of the environmental problem and motivates the viewer to critically reflect on their role in creating and resolving said conflict. By actively engaging the viewer in the experience, this narrative becomes a powerful tool for awareness and potential social change.

ELEMENTS OF SPATIALITY AND TEMPORALITY

The journey that represents the path of plastic from its consumption to its impact on the oceans reveals a complex way of representing time, space and the symbolic relationships between the narrative elements. In this type of narrative, spatiality and temporality are essential to how users perceive and relate to events, challenging the conventions of linear and conventional narration.

Spatiality in a 360° experience allows the viewer to observe and inhabit the narrative space, redefining the relationship between the user and the content. Unlike traditional narrative forms, where the viewer is a passive observer, in the 360° experience, the viewer becomes an active participant in the narrative process. The possibility of freely exploring the environment as the story unfolds creates a unique relationship with the narrative, where time and events are not presented precisely but are

experienced as interconnected fragments that invite the user to make their interpretation and reflection on the story (Jenkins, 2017). This approach challenges linear temporality, allowing for a fragmented temporality where the viewer can experience the different stages of the plastic cycle — from consumption to its accumulation in the ocean — in a non-sequential manner, offering a more profound and multidimensional understanding of the environmental effects of plastic consumption.

Fragmented temporality allows the viewer to reflect on the connections between the past, present and future of ecological problems. The narrative not only focuses on the origin of the problem but also invites anticipation of future consequences, thus creating an experience that interactively connects three dimensions of time. This type of temporal structuring breaks with traditional narrative, which is based on a progression of events in which the viewer is simply an observer of them. As Herman (2019) points out, emerging media such as 360° experiences allow storytelling to become a process of co-creation of meaning, where the user can actively participate in structuring the story and reflect on their consumption habits, seeing the consequences of these in real-time.

On the other hand, the notion of heterotopias proposed by Michel Foucault (1986) is particularly pertinent to understanding the meaning of immersive spatiality. Foucault defines heterotopias as “other spaces” that function as alternative realities outside the norms and values of conventional environments, offering an opportunity to question and reconstruct social norms. In the context of a 360° experience of the plastic journey, these virtual spaces act as heterotopias, as they allow the viewer to transcend the physical limits of their usual environment to explore an alternative reality where the consequences of plastic consumption are experienced tangibly and directly. According to Foucault, heterotopias distort society, which, in this case, allows for the creation of a symbolic representation of the impact of human practices on the environment. The immersive experience transforms space into a digital mirror, which not only reflects the environmental problem of plastic but also invites the viewer to question their role in it. The semiotic construction of the 360° immersive experience is also deeply connected to the visual metaphor of the spaces represented.

As in Lakoff and Johnson's (1980) theory of metaphors, which argues that our perceptions are shaped by the metaphors we use to conceptualise experiences, the spaces within the 360° narrative — such as the city, the river, and the ocean — act as visual metaphors that symbolise the different stages of the plastic cycle. The town represents consumption, the river represents plastic transition, and the sea represents the final impact of pollution. These symbolic spaces facilitate understanding how human consumption impacts the ecosystem, transforming each place into a sign with its meaning within the narrative (Barthes, 1957).

The ability to revisit different moments and places in the 360° experience introduces a circular temporality that, contrary to conventional linear narrative, invites a more complex reflection on the impact of human decisions on the environment. This circular temporality offers a multidimensional perspective of the plastic cycle, where the viewer can see how their choices affect over time, establishing a symbolic connection between individual actions and the ecological future (Ryan, 2009).

Applying the notions of spatiality, temporality and heterotopia to a 360° narrative about the path of plastic generates an experience that informs and transforms the viewer's relationship with the content. The immersive experience allows for a deeper and more critical reflection on the environmental impact of plastic consumption, inviting users to rethink their practices and take responsibility for preserving the environment. This narrative becomes a powerful tool for ecological self-awareness, as it connects the viewer directly with the consequences of their daily choices in a virtual space that symbolically reflects the effects of those acts in the real world.

CREATING NARRATIVE ELEMENTS OF THE STORY

The narrative of the Plastic Squad, starring Lucas, María and Juan, is presented as a powerful semiotic tool that uses an expanded narrative structure to illustrate the destructive cycle of plastic, from its consumption to its impact on the most remote ecosystems. Through the characters, each representing a consumer archetype, the story highlights how small and often unconscious everyday actions devastate the environment. From a

semiotic perspective, the objects dropped by the characters — a bottle, a bag and a stirrer — function as signs that symbolise human consumption practices and their devastating environmental impact, reinforcing the reflections of authors such as C. Bailenson and G. A. Davies, who argue that immersive experiences can deepen the meaningful associations of narrative elements, generating a resonance with contemporary concerns (Bailenson, 2018; Davies, 2020).



FIGURE 1. LUCAS. CHARACTER DESIGN

Source: Ollie Visual Arts

The plastic bottle that Lucas drops and is kicked and dragged into the stomach of a whale in Nuquí exemplifies how a seemingly insignificant object is transformed into a sign of collective carelessness. According to E. Saltzman (2021), this representation allows users to understand the consequences of their actions. It highlights how carelessness and irresponsibility, in a broader context, are amplified within a larger social structure. For the virtual reality (VR) viewer, the process of following the trajectory of the bottle to its fatal outcome underscores the interconnection between human actions and ecosystems, highlighting Peirce's concept of "unlimited semiosis" (Santaella, 2020). In this concept, signs take on multiple interpretations

as they move through different contexts, allowing the viewer to experience a narrative flow in which initial actions are amplified and re-meaning in their ecological consequences.

Similarly, the scene in which Maria drops a plastic bag that eventually covers a coral in San Andrés introduces a more visual and tragic dimension of the impact of plastic on marine ecosystems. Jenkins (2006), in his analysis of transmedia narrative, argues that visual elements in immersive experiences do not just represent facts but appeal to both the affective and cognitive response of the viewer. The image of a coral losing its colour and “suffering” is a visual metaphor for environmental deterioration, linking plastic consumption with the loss of biodiversity and sustainability. From a semiotic perspective, this representation symbolises the fragility of natural balance. It generates an emotional connection that transforms the viewer into a model reader who internalises the conflict and potentially becomes an active participant in the story, as proposed by Eco (1994).

The story of Juan, who drops a plastic stirrer embedded in a turtle’s nose, intensifies the reflection on the direct suffering of fauna due to plastic pollution. As Davies (2020) highlights, this scene brings the user to a point of interpretive crisis, in which they are forced to reflect on the ethics of their decisions. The shocking image of the bleeding turtle reinforces the semiotic notion that plastic waste is not just waste but agents of direct destruction for wildlife. This raw and brutal visualisation invites urgent ethical reflection, acting as a call to action that transforms the narrative into a space of intervention where the viewer must confront the consequences of human actions.

The chapter culminates with an interactive option that allows the user to choose “I choose to live in a Colombia without plastics!” and return in a flashback where the characters display more sustainable behaviours. This alternative ending is a clear example of what Saltzman (2021) calls “ethical rewriting narrative,” which allows the story to be reviewed and recontextualised to motivate positive change. This narrative tool invites the viewer to reflect on the plastic problem and allows them to visualise the benefits of adopting sustainable practices. In this way, Félix Guattari’s

(1989) concept of the “ecology of the mind” is embodied, which suggests that social and environmental changes begin with transformations in individual and collective practices. Through this rewriting option, the Anti-Plastics Squad’s immersive narrative not only presents the problem of plastic but also acts as an agent of change by resonating with the urgency of the environmental crisis, promoting a critical ecological awareness in the viewer.

Anti-Plastic Squad reveals how visual elements, objects, and characters’ actions function as signs that not only represent the problem of plastic pollution but also invite the viewer to reflect and make ethical choices. Through immersive reality, the signs acquire a deeper resonance, transforming the viewer into an active participant who experiences the impact of their actions on the environment. In addition to informing about the ecological problem, this expanded narrative acts as a tool for social change that motivates the viewer to reconsider their relationship with the environment and everyday practices.

Analysis of significances in the path of plastic

Here, I will explain the trajectory of plastic in a narrative context, where plastic becomes an unwitting protagonist of a story about environmental impact. From the perspective of narrative semiotics, this structure can be analyzed by applying Algirdas Julien Greimas’ actantial model, which identifies actors as individuals and as concepts or elements that participate in developing the narrative conflict. In this case, plastic, travelling from the city to the coasts, takes on the role of actant in a journey that symbolises the reality of pollution and its progressive effects on the environment. The town, the river and the sea act as helpers and opponents in this narrative shaping its path and ultimately determining its final destination. This perspective of environmental elements as actors offers an approach to understanding the collective impact of plastic in a journey that becomes a metaphor for the abuse of consumption.

PHASES OF THE JOURNEY AS AN ACTANTIAL STRUCTURE

The narrative of the plastic journey offers a deep semiotic space for analysing the interactions between elements of the environment and human consumption. Through the characters and the spaces they inhabit—such as the city, the river, and the sea—the story articulates a symbolic journey that highlights the environmental and social dynamics underlying the problem of plastic pollution. From a semiotic and actantial perspective, the city, the river, and the sea play crucial roles in the story's construction, not only as physical places where plastic travels but as actants that actively create meanings about the environmental crisis.

First, the city acts as the starting point and the first “helper” in the narrative of the plastic journey. In this context, the town symbolizes the origin of consumption and the transition toward environmental disaster. As Jenkins (2006) points out, urban infrastructure not only facilitates the transit of citizens but becomes a narrative structure in itself, a representation of systemic indifference towards plastic waste. The city's streets, parks, and sewers allow waste to escape into the environment without any intervention. This “escape” system amplifies the problem, revealing a disconnect between urban life and environmental responsibility. The city thus acts as an opponent within the narrative, where the lack of infrastructure to manage waste and the habituality of environmentally unconscious consumption is perceived as a force that perpetuates the ecological crisis.

The river plays a dual role in this narrative, functioning as a helper and an opponent. The river, the intermediate step in the journey of plastic to the ocean, symbolizes the flow of natural resources, as described by Davies (2020), but also highlights the dangers inherent to this fluidity in terms of pollution. The river transports the plastic and propels it towards its final destination, but in its wake, it accumulates and distributes waste, affecting human communities and ecosystems along its course. From the actantial narrative structure, the river becomes an intensified conflict, since, although the plastic is closer to the sea, its impact begins to be more visible and palpable, affecting not only humans but also the local fauna and flora. In this sense, the river is an interdependent space that reflects the critical

relationship between ecological systems and human actions, carrying out a symbolic transition process in the plastic cycle.

In the final phase of the journey, the sea acts as the stage where the environmental impact reaches its maximum expression. Throughout the narrative, the sea becomes a prominent opponent, as accumulated plastic waste seriously affects marine fauna, as seen in the tragic consequences for the turtle and the whale. The sea, traditionally perceived as a vast and infinite space, is limited by the absorption capacity of human waste, and thus, the narrative reveals the limits of the natural environment in the face of the invasion of garbage. As Guattari (1989) explains, this symbolic space reflects the internal disorder of contemporary societies, showing how their relationship with natural resources has led to their depletion. The sea, which seems to encompass an infinite space, becomes a symbol of resistance: its capacity to withstand human waste is finally broken, which amplifies the ecological message and underlines the criticism of the lack of sustainability. From a semiotic perspective, the actantial structure of the plastic's journey allows us to visualize how each phase incorporates different meanings and symbolisms concerning environmental problems. As noted, the city, the river and the sea are not only passive settings in which the narrative develops. Still, they are active actants facilitating the plastic's journey and constructing the narrative about the ecological crisis. In this sense, the narrative not only presents an environmental problem but also raises a question of the values and priorities of a society that has allowed plastic to integrate so deeply into the natural landscape.

Actantial analysis, therefore, underlines that each "actant" —city, river and sea— not only facilitates the plastic's journey but also plays an active part in creating an environmental story to generate critical awareness in the viewer. The signs of the city, the river and the sea not only represent the phases of the plastic cycle but also reflect the symbolic relationships between humans and the environment, inviting the viewer to reconsider their relationship with consumption and recycling. Narratives have become a powerful tool for reflecting on contemporary society's value systems and their environmental consequences.

SENSORY CODE AND THE USER EXPERIENCE

In the semiotic analysis of this narrative construction of the plastic journey, visual and auditory stimuli play a fundamental role in reinforcing the meanings associated with each space—the city, the river, and the coast—and guiding the user in critically interpreting the narrative. The visual representation of plastic floating in the water, whether on the surface or submerged, symbolises this waste's direct environmental impact and persistence in the marine ecosystem. Dark tones, mainly purple, convey a gloomy and noxious atmosphere, suggesting the degradation of these natural environments due to pollution. These elements amplify the user's perception of the threat posed by plastic waste and strengthen an immersive sensory experience, stimulating empathy and reflection on the environmental crisis.

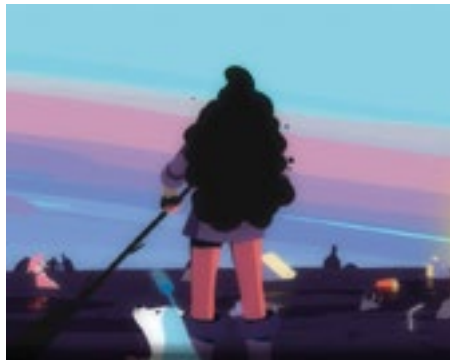


FIGURE 2. INSIGHT INTO HOW PLASTICS LOOK FLOATING ON THE SEA, HOW PLASTICS FLOAT UNDER THE SEA SURFACE

Source: Awareness and Care, on Behance

Umberto Eco's (1979) model-reader theory is critical to understanding how the user's interpretation is guided within this narrative. According to Eco, the model-reader is a figure designed by the author to interpret the work in a particular way, based on previously designed semantic and narrative keys. In this context, the visual and auditory elements of the journey act as signals that direct the user's interpretation,

shaping their experience towards an ecological awareness. Images of plastic floating in the sea, together with sounds that evoke desolation—such as the soft echo of waves or the oppressive silence underwater—function as reference points that help the user understand the impact of their actions. This structure becomes an “invisible guide” that encourages users to question their consumption practices and their relationship with the environment.



**FIGURE 3. INSIGHT FOR WATER TRANSITIONS
AND DARK PURPLE COLOR**

Source: Duerme y Recárgate. Señal Colombia on Behance

The user’s decision at the end of the experience, by pressing the “I choose a Colombia without plastics” button, marks a significant sensorial transition and turns the narrative into a transformation tool. By selecting this option, the user not only assumes an active stance in the story, but also experiences a remarkable visual and auditory transformation: the scene’s colours become saturated, the trees become full of life, and the environment is revitalized with diverse birds and fauna. This change symbolises the natural landscape’s rebirth and ecological balance restoration, creating a powerful contrast with the initial images of pollution and destruction. The saturation of the colours and the revitalization of

the flora and fauna represent a “natural power,” a term that emphasizes the capacity of the ecosystem to recover its vitality and diversity in the absence of pollution.



FIGURE 4. INSIGHT FOR THE CHARACTER DESIGN AND COLOUR FOR THE END OF THE ANIMATION

Source: Kew Gardens

The character design and use of colour at the end of the animation also reinforce this message of hope and sustainability. The characters, who initially interact with plastic carelessly, now appear in an environment where their actions are sustainable, and the brighter colour palette reflects a harmony between humans and nature. This use of colour and natural symbolism projects a message of optimism, suggesting that small decisions and changes in everyday behaviour can positively impact the environment. In this sense, the immersive experience seeks to represent a problem and aims to educate and motivate the user to take an ethical and responsible stance in their daily lives. Thus, the sensory journey reflects not only the environmental crisis but an invitation to act against it, using semiotic elements to turn the virtual experience into a catalyst for real change.

Musicalisation

The musicalization in the expanded narrative about the plastic journey is a crucial semiotic component that enhances the user's immersion and reinforces the meanings associated with the different spaces and moments in the story. From the beginning, the original music is used strategically to reflect the characteristics of the city, the river and the sea, and to express the contrasts between pollution and environmental regeneration. In Lucas's opening scene, the city is presented through echoes and whistles, a sonority that conveys urban agitation, constant noise and people's disconnection from the natural environment. As the plastic bottle is washed away through the sewers, the music becomes dense and viscous, as if liquid, symbolising urban waste's impact on the water system. The sound of polluted water mixes with the feeling of an unhealthy environment, underlining the lack of awareness about the ecological consequences of plastic waste. Upon reaching the river, the music transforms and adapts to a more popular tone, evoking local tropical music stations, such as the "plancha" style, or the distant radio tuning to popular Colombian stations, such as "Bésame" or "Vibra." This sonic shift implies a shift toward a more traditional and rural culture, but with a sense of distance, as if popular culture were a form of escape from the gravity of pollution. When the plastic reaches the Pacific, the music incorporates marimbas and circulars but with an echo effect or radio interference, suggesting that the authentic sounds of the region are being distorted or disintegrated by pollution, a sonic reflection of how environmental degradation affects even the ancestral cultures that inhabit those places.

The shift toward a "Colombia without plastics" introduces a radical change in the music, whose beat increases and becomes more cheerful, symbolizing the possibility of a healthier and more balanced future. This change reflects the possibility of regeneration and renewal, a call to action in response to the negative impact of plastics. The music becomes more explicit, joyful, and festive, indicating that a plastic-free environment will bring with it ecological restoration and the vitality of the human communities that depend on these ecosystems.

The music reflects the loneliness and desolation accompanying the plastic's journey in the Maria scene. The plastic bag, floating in the air, is accompanied by whistles and winds that convey emptiness and fragility, especially when the bag passes over the mountains. The sound of the wind in the treetops conveys the feeling of a natural landscape stripped of its vitality, suggesting the loss of connection with nature due to the impact of waste. Upon reaching the island of San Andrés, the music adapts to the Caribbean context. Still, it is distorted, with reggae or calypso muffled and distant underwater, as if plastic was drowning the local culture. The distant sound symbolises a disconnection between the land and culture as if the environmental impact distanced communities from their identity and environment.

However, when the user opts for a "Colombia without plastics," the music tunes in, raising the beat and becoming more vibrant. The calypso becomes clear and energetic, accompanied by greater clarity, as if a message of hope is being received, a call for unity and regeneration. With its optimistic beat, the song "Dreams Can Come True" by Hety and Zambo symbolises the transition to a more promising future, highlighting that the possibility of a plastic-free Colombia is within everyone's reach.

In Juan's scene, the music begins with keyboards and mechanical sounds evoking coldness and industrialisation, accompanied by the sound of typewriters, a reference to mass production and consumerism. As the plastic moves through the territory towards Antioquia, reggaeton plays in the distance, mixed with jokes on an out-of-tune radio, reflecting the trivialization of the effects of plastic on everyday life. The incidental music becomes more distant as the plastic stirrer becomes embedded in the turtle's nose, accompanied by a sound of pain, an echo of the violence that waste causes to marine fauna.

When the user chooses the "plastic-free life" option, the music clears, regaining its shape and clarity. The sound comes alive, like a salsa from Medellín, with the song "Los Charcos" by the band Fruko y sus Tesos. This change reflects the restoration of harmony in the environment, indicating that by choosing a life without plastics, one is participating in the regeneration of both the ecosystem and human communities. The use of music in the narrative provides emotional depth and serves as a semiotic

tool to guide the user experience, highlighting the contrasts between destruction and regeneration and reinforcing the animation's central message about adopting more sustainable practices.

Sound effects

The sound system in the plastic's journey plays a crucial role within the immersive experience, allowing the user to immerse themselves in a narrative context that oscillates between pollution and environmental regeneration. From a semiotic approach, the sound system is not limited to the simple representation of sounds. Still, it becomes a meaningful construction that amplifies the plot by integrating the ambient sound with the visual and emotional narrative. Beginning with urban noises and pollution, the sound system establishes an oppressive environment reflecting the chaos and disconnection characterising modern cities. This constant noise is a sign of contemporary life, saturated with stimuli and pollution, and becomes a vehicle to emphasise plastic intrusion into natural ecosystems.

As the story progresses, the sound is transformed. When the plastic's journey takes it to the depths of the sea, the sound system changes radically, going from artificial noises to natural sounds, such as the whisper of the waves or the creaking of corals. This shift represents the transition of physical space (from the city to the sea) and symbolises a change towards a calmer reality, albeit ravaged by pollution. In this context, the sonication is not invasive; instead, it gently blends in with the surroundings, allowing the user to experience the contrast between urban everyday life and the deteriorating serenity of the natural world.

This sonic subtlety carries a significant semiotic charge, as by changing the tone and texture of the sound as the plastic moves through space, signs of transformation in the narrative are reinforced. Not only do the natural sounds act as an antidote to the visual pollution of the city, but they also underline the contrast between the environmental destruction caused by plastic and the potential regeneration that can happen if a more sustainable path is chosen. The sound system, therefore, is not a mere accompaniment but a narrative construction tool that helps to reveal the different facets of the plastic's journey, transforming the simple act of moving

into a sound metaphor for the effects of consumption and pollution, while offering a critical clue towards the regeneration of the environment.

NARRATIVE DESCRIPTION

This narrative will be developed as an immersive experience that uses virtual reality to explore the story spatially and interactively. Users can enter a fascinating virtual world using a VR device or glasses. As a means of communication and storytelling, it will allow users to experience a story or an environment interactively. In virtual reality, the user is completely immersed in a virtual environment, able to explore it in all its breadth, interact directly with the objects and characters that inhabit it and live wholly new and exciting experiences. It is a powerful tool to tell stories and transmit emotions. This narrative approach aims to generate a form of immersive consciousness that drives social transformation since, by living the experience, all the senses are captivated. Thus, the experience, instead of statically observing a symbolic production, being immersive and interactive for the user is much more memorable¹.



FIGURE 5. MAIN SCENARIO

Source: Ollie Visual Arts

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- 1 Animatic: https://drive.google.com/file/d/1G89kqv4Ufpei_CUCNyr1pdKdXQlYHXG/view?usp=drivesdk

“Escuadrón Anti Plásticos” is an immersive experience in which the virtual narrative is articulated through settings, characters and rhythms characteristic of Colombia. From a semiotic perspective, the experience is configured as a sensorial and cognitive journey in which the user becomes a witness and participant in the consequences of their consumption habits while simultaneously being invited to reflect on sustainable alternatives. Through the action of three representative characters: the child who uses a plastic bottle, the woman who transports her tomatoes in a plastic bag, and the man who drinks coffee with a disposable stirrer, the daily habits that contribute to the deterioration of biodiversity are symbolised. These actions, in their simplicity, encapsulate the cycle of contamination since plastic follows a visual path that culminates in its environmental impact, specifically in the oceans, where its presence becomes evident in a destructive way. Regarding narrative semiotics, each end of the scene offers a crucial dilemma: a visually prominent and suggestive invitation that proposes a different action to the user. This call for change is configured as an act of resistance against environmental damage, a tangible option that invites us to navigate towards a possible future without plastics. As Umberto Eco points out in his theory of the semiotics of the reader model, this interaction reinforces the active interpretation of the user, guided by visual and contextual stimuli that encourage critical reading and reflective decision-making (Eco, 1979b).

STORYTELLING

Storytelling is built around a virtual world that transmits information and seeks a deep emotional and cognitive interaction with the user. The choice of a minimalist design, consistent with the environmental theme, becomes a visual metaphor that, from a semiotic perspective, enhances the message of the experience. The colours and textures, initially cold and plastic, progress towards warmer and more natural tones, which symbolizes the contrast between human impact and the potential for recovery of the environment. This change in textures is aesthetic and offers a semiotic transition that guides the viewer through the process of reflection and transformation.



FIGURE 6. INTERACTION MAP

Source: Ollie Visual Arts

As mentioned above, in terms of sound, urban, chaotic and polluting sounds are used at the beginning of the experience, which, like colours and textures, fulfil a semiotic function by evoking pollution and environmental disorder. As the user progresses, these sounds give way to more harmonic and natural melodies, reinforcing the message of hope and change. According to Jakobson's theory of the semiotics of communication (1960), the transformation of sounds reflects the expressive and connotative function of the narrative, inviting the viewer to perceive the difference between the desolation of plastic and the regeneration of the natural world.

THE ARRIVAL OF ENDANGERED ANIMALS AS A NARRATIVE TURNING POINT

In the visual journey, the appearance of the endangered animals introduces a crucial semiotic turning point that transforms the narrative, adding an ethical and affective dimension to the discourse. Regarding narrativity, the change in visual style when depicting the animals creates a significant contrast that highlights their vulnerability in the context of plastic pollution. This transition from silhouettes and flat colours to more detailed representations of endangered animals can be analysed as a change in the "semiotic register," where the viewer, by observing these more complex visual elements, is led to a deeper awareness of the consequences of the environmental crisis. From Greimas's (1983) perspective, this visual resource turns the animals into "actants" within the narrative, assigning them a central role that emphasises their status as victims and underlines the urgency of the environmental message.

Including these endangered animals, in addition to intensifying the narrative, functions as an ethical anchor that emotionally mobilises the viewer. By interacting with these "signs of life" in a narrative dominated by plastic and pollution, the user is confronted with a visual and semantic dissonance that invites ethical reflection. This resource not only strengthens the narrative dimension but, according to Barthes (1970), introduces a "controlled polysemy," where the viewer can experience multiple layers of meaning, interpreting the story of plastic from a perspective that encompasses both the environmental and the moral.

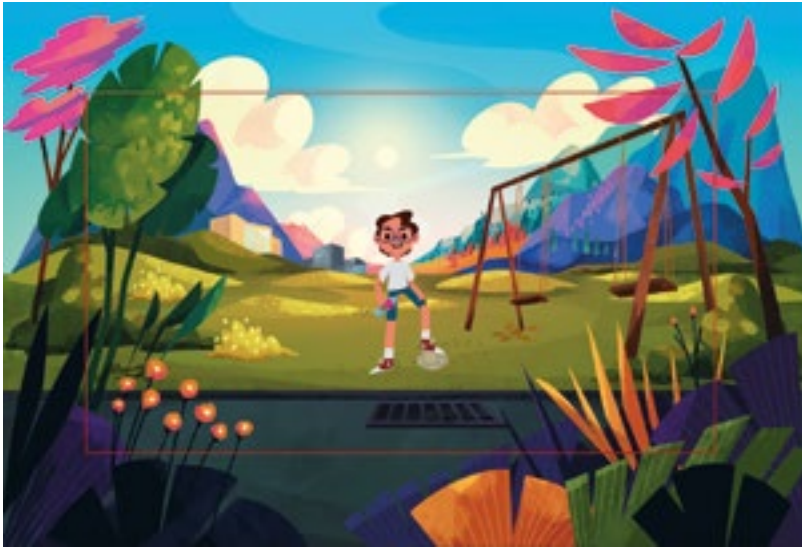


FIGURE 7. STAGE DESIGN, EPISODE LUCAS AND THE WHALE

Source: Ollie Visual Arts

The medium's interactivity offers the user a way of active participation in the story, aligned with the concept of "interactive narratives" proposed by Henry Jenkins (2006), who highlights how transmedia experiences allow for total immersion in the story. In this case, the simplicity of the path ensures that even users unfamiliar with immersive platforms can experience a meaningful connection with the content. This simplicity is not accidental, but a deliberate strategy to ensure the message reaches a broad audience without losing its semiotic depth.

The scenarios, which combine 3D images with infographics and sounds, not only illustrate the issue but seek to trigger an emotional response by creating an immersive environment. The semiotics of these elements are designed so that the viewer not only receives information but connects with it on an emotional and rational level. The use of accessible hardware and software reinforces the accessibility and dissemination of the experience, ensuring that the ecological message reaches a global audience.



FIGURE 8. MARÍA. CHARACTER DESIGN

Source: Ollie Visual Arts

The textual message in the scene, “On the beach and in the sea animals do not leave trash, humans do. Act like an animal. Do not use single-use plastics,” functions as a call to action loaded with semiotic connotations. In this case, using the figure of the “animal,” traditionally associated with nature, invites a symbolic identification that reinforces the importance of returning to a more harmonious relationship with the environment. According to Eco (1976), this type of message opens a space for interpretation in which the receiver decodes the content and recontextualizes it within their own experience and understanding of the world.

Visual treatment

In designing a visual narrative that explores the life cycle of plastic and its ecological impact, the use of a minimalist style with three-dimensional elements takes on a profound symbolic function. From a semiotic perspective,

the choice of simple silhouettes and flat colours responds to the intention of stripping the environment of distractions, creating a “space of meaning” in which the narrative elements stand out for their function rather than their form. This simplicity allows the viewer to observe, interpret and reflect on the meaning of each object concerning the plastic cycle. According to Eco (1976), minimalism in representation allows for a “semantic opening” where meaning is amplified and lends itself to a plurality of interpretations, allowing the recipient to engage in the process of redefinition actively. The resource of using paper planes and flat silhouettes also creates a visual narrative that plays with the idea of the ephemeral and the fragile. This semiotic metaphor can be interpreted as a representation of the fragility of ecosystems and the superficiality of temporary solutions to deep environmental problems. In this sense, the visual elements become signs that establish a symbolic relationship with the ecological message, where paper and simplified forms suggest both the transience of solutions and the complexity of environmental problems, by representing the plastic cycle from a critical perspective (Lotman, 1990).

The minimalist visual treatment and the introduction of endangered animals as a narrative turning point reveal the potential of semiotics to build complex meanings and generate a critical immersion experience. This visual structure, which goes from the abstract to the concrete, not only facilitates a broad and profound interpretation of the plastic problem but also guides the viewer towards an ethical and personal understanding of the environmental impact. Thus, the visual journey through the plastic cycle becomes a narrative and semiotic tool that invites introspection and encourages ecological responsibility, creating a visual discourse of significant impact and emotional resonance.

Ecological and ethical implications of the semiotic narrative

In the context of 360-degree immersive narratives, semiotics offers a critical tool to analyse how users can be sensitised to their role in the environmental crisis, specifically in the plastic pollution chain. From a semiotic perspective, the experience of immersion in an environmental narrative environment not only allows the user to “see” the problem but to

experience it and understand its impact viscerally. Such a narrative reconfigures the semiotic space by placing the user within a chain of signs representing a plastic waste's life cycle, from its production to its presence in the natural environment. By living this experience, the user is led to a critical reflection that questions the meanings attributed to the consumption and disposal of these materials, generating a framework of interpretation that invites ecological awareness and personal responsibility (Eco, 1976; Lotman, 1990). This semiotic critique of narrative ecology is closely linked to Félix Guattari's notion of ecosophy, which proposes an integrative vision of the ecological, the social, and the subjective. Guattari's ecosophy suggests that the environmental crisis cannot be understood or resolved exclusively from the ecological perspective but instead requires intervention in the realm of culture and human subjectivity (Guattari, 1989). By applying this framework to 360° narrative, the immersive experience restructures meanings. It allows the user to actively participate in a "narrative ecosophy," where their role is not only that of a spectator but that of a conscious participant in redefining the relationship between humans and their natural environment. The narrative thus becomes a space for ecological intervention, in which everyday practices are challenged, and a reinterpretation of environmental responsibility is promoted.

USER ROLE AS ACTANT

360-degree storytelling redefines the user's role, transforming them from passive spectator to "actant" within the story that tells the life cycle of plastic and its environmental effects. From a semiotic perspective, an actant is not simply a participant in the story but a fundamental element that contributes to constructing meaning (Greimas, 1983). In this context, the actant user becomes an agent of meaning and responsibility, who, by experiencing the journey of a plastic object from its production to its impact on the ecosystem, establishes symbolic connections between their everyday actions and global environmental problems.

According to Lotman (1990), this immersion turns the narrative environment into a "semiosphere," a space where meanings are constantly exchanged and the user receives information and participates in its

construction. This experience positions the user as a co-creator of the story and places them in an “ethical space” where they face the consequences of their actions. In this sense, the act of immersion in a plastic pollution story goes beyond simple exposure; it is a call to ethical introspection and to taking ecological responsibility, in which the user is confronted with the semiotic reality of their consumption and disposal choices (Jenkins, 2017; Scolari, 2013).

The 360-degree immersive narrative, from a semiotic and ecological perspective, not only allows for critical reflection on the user’s role in the plastic crisis but also makes them an active subject in the process of environmental resignification. By living and “acting” within these narratives, users are invited to explore and question the systems of meaning associated with their habits and their impact on the world. Thus, within the framework of contemporary semiotic theory, these narratives represent an environmental problem and reconfigure human beings’ relationship with their environment, promoting an integral ethical and ecological stance (Guattari, 1989; Herman, 2019)

Conclusions and projections

This study demonstrates how semiotics, by examining the representations and meanings embedded in immersive narratives, provide a vital analytical tool for understanding the role of plastic in the global environmental crisis. Semiotic analysis reveals that the signs and symbols within the narrative of plastic’s journey extend far beyond visual elements, functioning as a complex system of meanings that invites viewers to critically engage with their everyday consumption’s ethical and ecological consequences. This narrative approach does more than document plastic’s life cycle—it constructs a reflective space where viewers can rethink their actions and recognise their role within a more significant environmental framework. In this way, semiotics bridges personal experience with broader social dynamics, enabling a deeper understanding of how individual actions contribute to ecological degradation.

Applying semiotic tools to immersive narratives also opens the door to analysing other ecological crises, such as deforestation, biodiversity loss,

and the water crisis. Immersive experiences transcend mere exhibition tools, forming an “ecological discourse” that enables viewers to actively participate in constructing collective meanings about pressing global issues like climate change. By engaging the viewer in a profoundly emotional and sensory experience, 360° narratives represent the scale of these environmental challenges and the immediate consequences of individual actions. This approach creates a symbolic landscape that positions the viewer as an active participant in a broader ecological process, prompting them to reflect on the interdependence of global ecosystems and the urgent need for collective action.

In this context, applying semiotics to immersive narratives allows for adapting these tools to various ecological and cultural contexts, particularly in regions like Latin America. The region’s environmental challenges are intricately tied to social, cultural, and economic factors, making immersive storytelling particularly relevant for social awareness and knowledge appropriation. These experiences communicate ecological messages in ways that respect and reflect local environmental and cultural diversity. Semiotics, in this case, becomes a medium for fostering dialogue about nature from the distinct perspectives of different communities, highlighting the values and meanings these cultures associate with their environment. Such an approach promotes inclusive sustainability by incorporating local ecological knowledge and fostering intercultural dialogue, which can significantly enhance collective environmental consciousness.

360° immersive narratives have the potential to be a powerful tool for building collective environmental awareness. These narratives can forge communities of meaning that transcend geographic and cultural boundaries, cultivating a culture of sustainability and shared commitment to environmental stewardship. By applying semiotic principles to these formats, ecological issues are represented and used as catalysts for change, helping communities internalise and adopt sustainable practices in their daily lives.

This semiotic approach to immersive narratives is critical for raising environmental awareness. It facilitates a crucial interpretation of ecological issues while providing a platform for self-reflection about the viewer’s role in the ongoing environmental crisis. In an increasingly interconnected

world, the semiotic language of immersive storytelling can play a pivotal role in fostering global environmental awareness, encouraging more sustainable behaviours, and constructing a more conscious, ecologically balanced future.

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**STORYTELLING INSIDE VIDEO GAMES:
GAME ZONES, LUDIC SPACE AND SEMIOTIC FRONTIER**

Ernesto Pablo Molina Ahumada

This chapter aims to problematize the storytelling inside video games by examining the modes of construction of game spaces, based on the notion of specular symmetry or enantiomorphism proposed from the Semiotics of Culture by Juri Lotman. From the orientation offered by the notion of magic circle proposed by J. Huizinga, the contributions of Janet Murray and Espen Aarseth and those offered by the Lotmanian semiotic perspective are recognized to interpret the relationship between the avatar of the video game and the player. The chapter seeks to offer semiotic reading keys to understand the way in which some concepts can illuminate the complex relationship presented by the video game when it comes to its critical approach. To this end, three contemporary video games are exemplified: *Detroit: Become Human* (Quantic Dream, 2018); *Transference* (SpectreVision and Ubisoft Montreal, 2018) and *Wonderbook: Book of Spells* (SCE London Studio, 2012). Our hypothesis posits that the zone of play that video games procreate comprises not only the modeling developed virtually by the software and represented on the screen, but a series of concentric spaces that deserve to be considered and problematized. This complex space comprises a wide area of semiotic negotiation where the player's actions take place. Thus, what we seek to demonstrate through these examples is an arc of possibilities of action, which expands the notion of the magic circle and supports, rather, the idea of a wide zone of play for the development of the experience and experimentation that playing videogames poses.

Introduction: storytelling and video games

According to Marie-Laure Ryan (2001), in the ecosystem of new digital media, the forms of narration will depend on the cybertextual genre that conveys that narration: hypertext, VR environments or video games. However, the video game is the one that presents the greatest difficulties when

it comes to being conceptualized, due to the instrumental rather than aesthetic character that narration plays there as an element to attract the player into the game world. This particularity requires the use of more specific categories than the traditional ones of literary narratology, assuming other concepts according to the new forms and formats of today's digital media.

Greg Costikyan (2007) agrees in pointing out an unresolved tension within the video game between the demands of the ludic and the demands of the narrative, "because constraints that benefit the story aspect of the game may sometimes make the game aspect less interesting" (2007, p. 6). According to Costikyan, the key to overcome this dilemma consists in allowing a high degree of player freedom between story and game (2007, p. 12).

Ryan et al. (2016, p. 103) place this tension under a spatial logic, pointing out that the creation of interactive virtual worlds has generated a new form of storytelling that has combined these dimensions and has materialized a resulting space or gameworld, where that combination unfolds and can assume different configurations (Ryan et al., pp. 109-111). The spatial approach that these authors introduce is useful for analyzing the problem, especially if we consider with Hindmarch (2007, p. 52) that "the goal of a storytelling game isn't to produce a good story; it's to participate in good storytelling."

Following this reasoning, the meaning of the video game as a storytelling medium is to make the player participate in the storytelling process, granting effective freedom of movement not only in front of the events that are narrated, but also in the game space in which the player participates. This freedom comprises a set of possible movements framed in a game space (Hindmarch, 2007, p. 53), a conceptualization that can be put in dialogue with other spatial conceptualizations.

The space of play

Ray Bradbury imagines in his science fiction story "The Veldt" (The Illustrated Man, 1951) a device that helps us to describe the issue to be explored in this article: spatial zones in which the playful narrative materializes in the form of a performance. In Bradbury's case, the story's protagonist space is a children's playroom, designed in a future world. The room is twelve

meters wide, twelve meters long and ten meters high, and there a supersensitive film is projected in three dimensions and another film is projected behind the glass walls, which registers the mental waves. There are also loudspeaker devices and “odorophones” (devices that emit odors, wind, etc.) that intensify the realism of the virtual representation in that room.

Janet Murray, in her 1997 book *Hamlet on the Holodeck*, uses a device that comes from the fictional world of the television series *Star Trek* to draw attention to the narrative possibilities offered by some digital texts. It is a device that makes it possible to visualize concretely the effect of materialization of experience and the narrative effects that fiction provokes when it is acted out. Murray’s device of choice is the *Holodeck*, a three-dimensional story simulation technology that allows Captain Janeway in *Star Trek* to simulate a romantic scene in the Victorian era or any era she wishes. According to Murray, “The Star Trek holodeck is a universal fantasy machine, open to individual programming: a vision of the computer as a kind of storytelling genie in the lamp.” (2017, p. 24). According to Murray, the Holodeck offers the same as any other literary experience in that it provides a safe space in which to confront feelings that might otherwise disturb and that we might otherwise perhaps repress. In a sense, the Holodeck allows one to be oneself and another person at the same time.

These two examples illustrate processes very close to the experience of playing video games, a subject that we are interested in investigating from a semiotic-cultural perspective. Both examples show the way in which interactive fictions can be deployed from the choices of a human operator. As Espen Aarseth (1997) postulates for the case of “cybertexts”, these two examples describe ergodic devices that depend for their semiotic deployment on the action of a human operator.

A final aspect that we would like to take up from Murray’s argument has to do with the margin of mobility in the worlds generated by the video game. The holodeck is a room that surrounds whoever uses it, so that as players we are registered and domiciled in that space, with a limited margin of maneuver. Hence, Murray’s notion of *agency* coherently refers to that activity foreseen by the user according to the possibilities enabled by the code within a repertoire of previously designed possibilities. What

Murray emphasizes through this approach is the delegated condition of this power to act. The player never achieves the poietic capacity that the game programmer possesses (Murray, 2017, pp. 142-143).

Ian Bogost (2007) alludes to this persuasive form exercised by video games through the concept of *procedural rhetoric*, trying to mark the difference with other persuasive forms of verbal or audiovisual character, and emphasizing the codified nature of this new way of convincing the player, without offering room for opposition or disagreement. The only possibility to disagree with the persuasive proposal of the code is to give up playing.

That is to say that the analogy with the holodeck can function as a figure that makes visible the possibilities and limitations of the narratives in the digital medium proposed by the videogame, although limiting this image to the set of experiences that occur in a certain game space.

In this chapter we are interested in investigating the relationships of meaning that video games construct with those who play them and, in particular, the way in which they deploy a “ludic space” in which the programmed narrative possibilities are effectively realized. For this purpose, our inquiry resorts to some concepts of Juri Lotman’s semiotics; in particular, the mechanism of “specular dialogue” or enantiomorphism, developed at the end of his essay “On the semiosphere” (2005), originally published in 1984.

In that essay, Lotman understands enantiomorphism as a basic mechanism in the system of culture. Our perspective argues that this specular mechanism of dialogue is key to think of the video game as a complex semiotic process with open borders.

MIRRORED CONSCIOUSNESSES

Huizinga’s (1949) classic definition of the “magic circle” of the game refers to that temporally and spatially delimited space, outside of which the rules of the game are not valid. From Huizinga’s perspective, playfulness is constitutive of many cultural activities that, with the passage of time, we may no longer perceive as playful. In the conceptualization proposed by Norbert Elias and Eric Dunning (1986), play (and more specifically sport) appears as a recent phenomenon (18th century). Through it, social groups in dispute

translated violence through the representation of that antagonism, but introducing highly codified rules of behavior and interactions. The game makes it possible to establish a spatial and temporal segment where the “controlled decontrol of emotions” is possible. Elias (1998) provides even more elements to think of the “magic circle” of play as a private or proper space. He does so when he analyzes how this idea of a space of one’s own is the effect of the development of a specific social canon of regulation of behavior and feeling. The idea of one’s own space is the result of a long process of modification of human institutions and their internalization. By this he means that it is not a way of socially codifying space, but a way of behaving in it and around it.

Lotman proposes in some of his essays (2011; 2000) the approach of play as one of the fundamental phenomena of culture due to its capacity to model reality. For Lotman, play has the capacity to construct regulated and safe models of the world. There, possibilities of action and conditional overcoming of obstacles can be tested. The difference with the worlds created by art is given in the degree of effectiveness: play is a school for specific and concrete skills, and art is a laboratory for the mastery of the general capacity to model.

Beyond these differences, the way in which these authors attribute historical and cultural importance to play is relevant. In particular, we are interested in recovering the way in which Lotman conceptualizes play as a type of behavior that is both practical and conventional at the same time: a behavior that oscillates or “flickers” between the oblivion that play requires in order to believe in the fictional pact, and the non-forgetting that it is a game, so as not to end up mistakenly taking it seriously. Lotman concludes by pointing out that the game offers in every cultural system the possibility of learning to reconcile a double plane consciousness, which is what allows us to play and, on the other hand, to discern that we are playing.

Another author that is essential to cite at this point is Bakhtin and his notion of dialogism, central to the interpretation of Lotman’s thought. Regarding the relationship between hero and creative author, Bakhtin (1990) states that the heroic figure constitutes a concrete object of the author’s aesthetic vision in the work. The hero possesses a certain

artistic finish and a certain significance that explains his central position in the represented world of values. Therefore, the problem of the construction of the character is not only an aesthetic question, but also an ethical and even a cognitive one. Only when the hero succeeds in making explicit the values that govern his conscience and from which he conceives the world does he acquire a “semantic fullness” that heroifies him and distinguishes him from the rest of the characters. Bakhtin defines this situation of dialogical tension between the hero’s consciousness and the author’s consciousness, which encompasses and constructs him as a totality, as a process of extrapolation, understood as the surplus of vision and knowledge that the author possesses with respect to each of the characters.

From Bakhtin’s dialogical perspective, what happens in this process is the encounter of two consciousnesses with different places in the world, an “exotopy” that enables a certain freedom for the other, in front of which one is oneself an observed object. This is how Bakhtin (2015) analyzes it through the analogy of what happens when we see ourselves in a mirror:

Apparently, in this way we are seeing ourselves directly, but it is not so; we remain within ourselves and see only our reflection, which cannot become the immediate moment of our vision and experience of the world; we see the reflection of our appearance, but not ourselves in that appearance, the appearance does not encompass me all, I am in front of the mirror, and not inside it; the mirror can provide only the matter for an objectification of the self, and not even that in a pure aspect. (p. 39)

Bakhtin’s argumentation in this passage points to the fact that in the event of contemplation, even of ourselves, there is always a second participant or potential and indeterminate other with whose help one builds —by the surplus of vision and knowledge that this other brings from his exotopy— the very scope and finish of that contemplating self. From this perspective, the knowledge and surplus of vision that exotopy enables constitutes an indispensable dialogical mechanism for accessing the semantic fullness of the participants in the dialogue. In the game,

says Bakhtin (2015), a different life is experienced without leaving the limits of experience and self-awareness, that is, without confronting the other as such. There is there a crucial key to understanding the way in which the relationship between the participants of the game is characterized not by their fusion but, precisely, by the differentials of consciousness between them.

Juri Lotman's semiotics of culture is indebted to Bakhtin's dialogical perspective. Lotman conceives the semiotic act as a negotiation of meanings that is always established between "semiotic persons" or thinking devices, the texts. Thus, according to Lotman, it is the elements in common as well as the information differentials that each of these texts carries that guarantees communication as a process of semiotic translation always established between (at least) two participants or partners in communication.

One of Lotman's concepts most closely linked to Bakhtin's notion of dialogism is that of "mirror symmetry" or enantiomorphism:

The simplest and most widely disseminated form of combination of structural identity and difference is enantiomorphism, mirror symmetry, through which both parts of the mirror are equal, but unequal through superposition, i.e. relating one to the other as right and left. (Lotman, 2005, p. 220)

This situation, which we experience for example when we look at ourselves reflected in the mirror, refers to the same example that Bakhtin raises to think about the tension between consciousnesses.

In Lotman, the phenomenon of specular symmetry in communication guarantees the relay of transmission and reception, because it assumes differences in each text. Thus, the existence of identical texts would be unthinkable and even counterproductive for the informative dynamics. This idea, linked to Bakhtin's concept of dialogism (Aran, 2006, pp. 83-89), defines what Lotman considers the stereoscopic character of any culture, which is structured on the basis of the interrelation between elements that share common information and, at the same time, are capable of always contributing new information.

The notion of enantiomorphism can help to understand the relationship between player and avatar within the game as texts in contact and mirrored. It is worth recalling here the Lotman's notion of frontier, understood as a porous line of translating mechanisms between semiotic entities. It is a functional mechanism that guarantees the dialogical exchange we have just described. The particularity of this dialogic phenomenon that video games procreate in front of the player is the constitution of a complex space with a double border: on the one hand, the border that connects the avatar acting in the virtual world created by the program with the player, who is outside this ludic world; and on the other hand, the border of the "game space" that brings together both the virtual world, its interfaces and the player, in a zone where multiple cultural languages converge.

This idea, which we derive from the way Norbert Elias conceptualizes "private space" as a series of concentric circles according to socially constructed patterns of privatization, helps us to think that video games are not only the relational semiotic phenomenon that happens inside the screen, but also what happens between the screen and the player.

Concentric circles

Jesper Juul (2013) thinks of the video game as a device oriented to offer safe spaces of controlled emotion for experience and experimentation. That is, in line with what Elias proposed, spaces for the "controlled de-control of emotions". It is possible to recognize in this space concentric circles of privatization, according to the way in which canons of behavior and feeling have been placed and interposed in front of what we culturally define as "play". Where does the space of play end when we play video games?

We would like to investigate three examples that problematize these concentric compositional circles of the game space. Ordered sequentially, we will start our commentary with the game by the French studio Quantic Dream, *Detroit: Become Human* (2018), continue with another one by SpectreVision and Ubisoft Montreal, *Transference* (2018); and end with the game by SCE London Studio, *Wonderbook: Book of Spells* (2012).

THE DETROIT EXPERIENCE

We have pointed out that the mechanism of enantiomorphism implies the generation of new information from the dialogic relationship between texts according to the portions of shared information and that which each one contributes as an incentive to mutual translatability. The poetic proposal in Quantic Dream's game *Detroit: Become Human* can be described from this hypothesis. Its debt to interactive cinema and the graphic adventure genre; the relationship with fantasy, detective and science fiction literature; the cinematographic and theatrical perspective that conditions the construction of the angles and the scene; the narrative resources of flashback and flashforward: all these elements come from other cultural languages (cinema, literature, arts in general) and constitute a common memory reorganized by this video game. What is new is the way in which the game's director, David Cage, introduces variations around these elements, according to the specific possibilities of the video game to generate emotional and empathic relationships in the interaction. Cage's intention is to equate playing the game with the ephemeral and everyday of daily life, so that the virtual world must reflect as accurately as possible the will of the player. Engaging with the game means taking responsibility for what happens to the characters in that virtual world.

Detroit is a graphic adventure and action game set in a futuristic city where androids have been integrated into everyday human life. Beyond the outstanding graphic section with a high level of realism, this game by Cage places us in front of an extremely minimalist and intuitive interface, with reduced command instructions and abundance of cinematics.

The narrative plot of the game problematizes the theme of freedom. Androids have taken over a large part of human labor, to the point of becoming a new social stratum dedicated to unconditional servitude (slavery?). The game proposes a multiple focalization from the point of view of three characters who will go through, as part of a collective of androids, a process of gradual individuation due to a failure in the code of conduct that keeps them submissive. This "failure" means, in reality, an acquisition of self-awareness and the consequent yearning for freedom.

The three characters we command are: Kara (a domestic assistant); Connor (an investigation prototype who collaborates with the police); and Markus (an android companion who is unjustly accused of a crime and will lead from there a revolution for the freedom of all androids). With this scheme of mutually involved plots, the game offers a complex storyline that leads to different resolutions of conflicts but, above all, allows the player to live different experiences.

The central conflict in the game has to do with the possibilities of “diverging” from the androids’ primary programming (the equivalent of Asimov’s laws of robotics), which makes it possible for the player to lead the character towards a greater degree of freedom. Thus, if empathy has to do with the internalization of a social rationality, the game proposes precisely to invert that logic (there we perceive the power of semiotic specularity) and to encourage the experience and experimentation of being another. This passage of divergence that places the player in the role of restrained androids but capable of freeing themselves from this submission, represents a heroic path of learning that reveals itself as a path of re-knowledge of the human, a recursive turn from the exotopy of the other that reverts to the very human condition of the player’s self.

In this game by Cage, it is interesting that an aesthetic (and ethical) view of the final form that certain heroic journeys take conflicts with the semiotic possibilities offered by the game’s complex plot mechanics and its invitation to “experience and experience” other horizons of empathy. In fact, in statements about the game, Cage has expressed that he did not want to build yet another story about artificial intelligence, but to place the human player in the place of an android that values and yearns for the human emotional world. We could say: a videogame that makes exotopy its constructive principle.

In addition to the multiple focalization, the plot variability and the memory systems of choices that (being irreversible) condition the endings of the plot, there is in this game a detail that goes beyond the level of the characters and the plot, and is located in what from Bakhtin we could conceive as the architecture of the game. This element is part of an explicit

authorial poetics in this case, which refers to a third consciousness in the hero-player dialogism: the consciousness of an author-creator.

That is the case of Chloe, one of the android companions who stars in a chapter of the game and appears from the beginning as the background of the menu, making annotations and general comments as the game progresses. Along with Chloe, the game proposes in one of the menu options to complete a survey with questions about our preferences with androids and artificial intelligence in hypothetical everyday situations. Reaching the end of the game, however, the menu is revealed as another narrative strategy in the communication of the game's empathic message, when Chloe, before restarting the game, asks us if we would be able to "free" her. The player has the option to choose "yes", with the character disappearing and the menu remaining empty; or to choose "no" and keep Chloe at the bottom of the screen, knowing that this decision outside the game may or may not be in line with the choices we have made in the fictional world.

What makes Chloe's case visible in the game menu, along with the combined plot complexity of the vicissitudes of Kara, Connor and Markus, is the construction of a very complex text. That text is not only activated but strongly interpellates the player from a specific poetics that makes exotopy its key. The issue of empathy in Cage's authorial poetics nourishes not only the plot structure of the game, but also the aesthetics and ethics of several aspects that exceed, strictly speaking, the fictional experience framework.

Another noteworthy point for this construction of an expanded space as a playground is the treatment of the city. The game models the city as the stage where the process of android individuation unfolds and develops. At the same time, the city is constructed as the playground or arena of "experience and experimentation" (Juul) for the player to test ethical decisions, experience emotions and resolve moral dilemmas as driven by the authorial poetics.

This treatment of urban space in the game deserves special attention. What is offered as an area of exploration represents, in reality, a reduced space for the development of some narrative options according to the author's script. The environments in which each chapter of this

game takes place do not offer the extension or the possibility of exploration of other games considered open world or sandbox, allowing only a fragmentary reconstruction of an image of the city. However, although the spatial experience is very reduced, the psychological depth that can be discovered for each of the characters is considerable, especially if we take into account the possibility of configuring their personality according to the decisions we make in the multiple plot model proposed by the game. The narrative exploration of space is then replaced by the psychological thickness of the plot.

A good metaphor to conceptualize the city in *Detroit* is that of the labyrinth, similar to that of other artistic texts in literature and cinema, which speaks not only of the narrative maturity of the medium but also of the explicit aesthetic and ethical will in the case of Cage's games. The bounded urban space contributes to this narrative purpose by the senses it conveys through the limitation of movement through virtual space, as we will see for the next case of analysis, *Transference*.

As Ken Hillis points out:

Although interactivity anticipates a limited range of user input, ves [Virtual Spaces] actually propose that users experience someone else's conceptions (in itself not a new phenomenon) represented as highly vivid sensations experienced via a process of immersion (a new phenomenon that reduces the distance or space between object and subject). This works to confuse users' perceptual experience with the conceptions programmed and designed into the machine. (Hillis, 1999, p. 70)

The video game thus offers new ways of modeling urban practices in pacified, simplified, stereotyped and often spectacularized cities, for the delight of the gaze of players who become tourists.

Detroit, the game and also the city in which it is set, are narrative spaces available to build strong empathic bonds between avatar and player. In fact, what is sought is to build a "Detroit experience": this is how the game is presented to us when we start it: "Welcome to the Detroit experience". As can be seen, the game tries through narrative and paratextual

resources to make the experience coherent and that what the player experiences inside the game coincides with the decisions made outside the game. Thus, the game space, while recognizing an internal boundary between avatar and player, is synchronized in such a way that the entire game system operates on the basis of this search for harmony, with the strong presence of an authorial conscience that clearly delimits the general framework of movement for all of them.

TRANSFERRED MINDS

Transference (SpectreVision, 2018) is a virtual reality game that admits to be played with or without a virtual helmet, although the virtual reality experience is much more immersive, shocking and oppressive due to the sensory effect of the music and the first-person images.

Transference, as explained in the promotional video by the SpectreVision studio, allows those who play through virtual reality to feel as if they were in a movie and, after removing the helmet, remain connected to that world. The video game, based, according to its creators, on a neuroscientific experiment on digitalization of emotions from the 1980s, places us from the beginning in front of a building with an abandoned appearance and chiaroscuro, set against a black background. As an atmosphere, diverse sounds are heard, some sudden and others everyday, all accentuating the idea of an abandoned area, but also that of an enclosed space, because every time we try to move beyond the limits of the stage, we hear a shrill sound and reappear in the illuminated area. Once inside the building, something similar happens with the staircase outside the apartment where the action takes place, because no matter how hard we try to go up or down it, it leads us to the same starting point.

Classified as an adventure genre in several specialized websites, it adds in the different classifications the labels “psychological thriller”, “puzzle” and “first person”. It becomes relevant then what we pointed out before about enclosed or partitioned spaces, as a trend contrary to the usual, since video games in general and adventure games in particular are based on the creation of environments to explore, traverse, conquer, and even manipulate dynamically (Newman, 2013, p. 105).

The development of the game's plot is based on solving puzzles, generally of low difficulty, and takes place in a few rooms of the building that cannot be left until the game is completed. The oppressive character of the environment is accentuated by the choice of lighting in certain shades, a prevailing nocturnal character and the mysterious aspect of the space, which gives the idea of confinement in a room or escape room. As the exploration and the discovery of video fragments and information progresses, a plot of disorder, obsession and death takes shape around a scientific project in a context of family-love collapse. The game innovates by proposing to interact with different materializations of the same space (the family home) according to the emotional perspective of each of these three characters. The objective of the game is to know the whole story.

The fact that the player is presented as another point of view in this world is coherent and is even part of the narrative and philosophical logic that builds the game. From the videos, quotes from books and audios collected, emerges the universe of questions, theories and themes that are put into question: can consciousness be digitalized? And if so, is it possible to house different consciousnesses in the same digital space?

The game seeks to provoke intense emotions and sensations in the player, without resorting to a multiple plot structure as in the case of *Detroit*, but appealing to the tragic pathos of putting the player "in the skin" of the characters. In *Transference*, the border between avatar and player is blurred thanks to the device that literally brings the virtual world closer to the player's eyes and makes him a necessary participant in what happens there. In this game, the experience of playing is strongly associated with a private, intimate experience, not only because of the helmet that encloses and separates the player from the ordinary world outside the "magic circle", but also because of the explicit recommendation in the game's initial menu to use headphones to take full advantage of the game's sound immersion. In the case of *Transference*, then, the game space is glued to the player's body and becomes a private spectacle, for his eyes and ears only.

TRANSFERRED MINDS MAGIC IN AUGMENTED REALITY

The third example is an augmented reality device for Sony's PlayStation3, which virtually models on the screen a plot derived from the fictional world of Harry Potter created by J. K. Rowling. The game is played thanks to a book-shaped peripheral with QR codes printed on the surface of its pages. These codes are readable by the PlayStation Eye camera. The motion controllers become a magic wand inside the screen and, after a brief tutorial, the game literally places us inside the game world: our image as players is inserted into an animated graphic, like a spectator at the bottom of the screen where the story takes place. With the introduction of specular logic, which according to Juri Lotman adds front-back to the left-right axis, the video game gains depth and digitally duplicates the player as an avatar within the game.

From a semiotic perspective, we could say that we are in front of a complex text of culture, which recovers previous forms of cultural expression, although put to work in a new environment or ecosystem of meaning, which connects it and at the same time differentiates it from other texts produced before. In this particular case, there is a strong link with the pop-up book, which was a great invention of the Victorian era.

The movable book appears at the end of the 19th century thanks to the expansion of the children's reading market and the new technological developments in printing and paper manufacturing, in addition to the impulse that book illustration acquired from the development of children's literature between 1865 and 1914 in England, as analyzed by Hannah Field (2019).

What is most interesting about the movable book is its ability to transform the conception of reading, making it dependent on both physical action and intellectual activity. The configuration of a hybrid semiotic object occurs here, a subtype of the picture book that is constructed as a point of contact between book and toy, on the one hand; and on the other hand, as a point of contact between reading and a whole network of visual entertainment experiences characteristic of the period, such as the magic lantern and the moving panorama, theater, photography and a certain

prehistory of cinema. However, the movable book was never a solely visual experience, as it involved touch.

According to Field, the pop-up books challenged the very notion of “book” and marked a link of continuity with toys. Through the moving book, a visual and tactile illusion was generated that turned the book into a text capable of modifying the user’s perspective, making concrete that which in the reading experience was abstract. For example: the monster described by words assumed a paper form and emerged from the page towards the reader.

Faced with cases such as those of the mobile book, the question about the limit or boundary of reading, the boundaries of what a book is, or even about the practice of reading and playing becomes conflictive. It is in this space of tension that the case of an augmented reality book like *Book of Spells* operates.

As we have mentioned, the augmented reality device creates a fictional virtual world on the screen based on the recognition of the QR code on the surface of the book and the player appears duplicated as a digital character. In other words, the screen functions as a mirror that modifies the typical video game relationship of commanding an avatar to propose this new representation of a digitally mirrored self. Our movements outside the game world are translated by the machine into magical gestures, including the movement of the wand and in some sections, shouting incantations and moving the book to comply with what the narrator of the story asks of us. This example allows us to think of the “game space” not only as the virtual environment where the avatar’s adventure takes place, but also as the area of relationship and influence with the user who is playing, recovering the pioneering idea of Espen Aarseth who defines the video game as a privileged form of “ergodic” literature because it requires the activity of a human operator for its functioning.

In the case of *Book of Spells*, the game world absorbs the world outside the game and translates it into matter available to expand fiction. The camera and peripherals take on the task of translating the environment into binary language and make us enter (in the form of bits) the virtual world of the videogame.

Specular symmetry, which was metaphorical in the cases of *Detroit* and *Transference*, becomes literal here, thanks to the functioning of the camera and peripherals. Thinking from Juri Lotman's categories, we could analyse these devices as elements that assume the task of functioning as translation filters.

Conclusions

We have demonstrated how to approach the construction of storytelling from the semiotics of culture, the space where the game takes place, and how it is possible to approach this relationship from the notion of enantio-morphism or specular symmetry. From three examples, we have defined a particular way of delimiting zones of semiotic functioning of the "ludic space", revealing cases that question these limits and others that exploit them. By provoking the tension of those limits or exploring their scope, games make visible a structure of concentric circles between the represented world and the player, a comprehensive, porous zone of semiotic exchange. On the one hand, some games exploit the most frequent relationship between avatar and player, a relationship mediated by the usual interface mechanisms that guarantee the command of the virtual body of the avatar while keeping both figures differentiated. Beyond the moral implication in *Detroit*, the player's space recognises a border. The command of the avatar takes place in a typified meeting space, where the meeting of a virtual entity and a consciousness to which the responsibility of command is delegated occurs. The storytelling flow, however, remains in the hands of the authorial consciousness that regulates (more or less intensely) this created world.

On the other hand, we have virtual reality games such as *Transference*. This simulation seeks to blur the boundaries between avatar and player and increase the emotional and sensory impact. The result is an image of a game space with a very narrow distance between avatar and player. In many of these cases, the intensity of the experience feeds back into the genre to which a given game belongs.

Finally, the augmented reality example of *Book of Spell* proposes an expansion of the game space by incorporating the player into the game

world, blurring the boundary and placing in its place a mirror that guarantees crossing in both directions from both planes.

As Will Hindmarch argues, “Storytelling games are about the challenge of conceiving and telling stories, not about the pleasure of having a story or reading a story. It is the process, not the outcome, that is important” (2007, p. 52). All these examples show the productivity of the category of “enantiomorphism” proposed by Lotman to think the different ways in which these processes of narrating and playing take place. In turn, the pertinence of the semiotic gaze is demonstrated to address the processes of co-construction of meaning in the video game, assumed as a space of encounter between “semiotic persons”.

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NARRATIVE ORTHOGENESIS AND SPATIAL COLONISATION CONFRONT LUDO-NARRATIVE DISSONANCE

Damien Tomaselli

This chapter investigates the colonisation process occurring within the rhetorical integration of the narrative form into various story-forms, with applied focus being on the arena of the video game. This chapter argues for the existence of a broad framework explaining the development of this phenomenon dubbed as orthogenic-narrative spatialisation. Orthogenesis refers to a directed evolution. The orthogenic-narrative spatialisation process presents a developmental framework in which a narrative synthesis tends to rework the spatial orientation of the material form that it colonises. This material form, which comprises the aesthetic, symbolic, ludic and all other elements of spatial organisation, reformulate in an attempt to synchronise with the needs of a story-driven plot. This is a generational process that guides the evolution of the materialisation of rhetorical space through utilisation of the available parameters afforded by technological and other forms of innovation. This evolutionary process coincides with the cycling of both harmonic and disharmonic syntheses that occur incrementally, for instance, in both the rhetorical form and the market sphere.

Introduction

This chapter focuses on video gaming, which has been in intersection with the narrative form from the 1980s to the present. The development of spatial-narrative principles into an 'interactive' phenomenon bears inevitable graduations of potential disharmony between the narrative designs and gaming. Of particular relevance is that the debate revolves around the reoccurring teething issue that is encapsulated in the realisation of spatial-narrative harmony commonly dubbed *ludo-narrative dissonance*. The potential structural incongruities and harmonies between ludology and narratology have spawned an identity crisis in terms of defining both forms of study. As space continues on an orthogenic path, with the narrative form

colonising spaces of interactivity, the lines distinguishing gaming from the narrative form become increasingly blurred.

Central to the synthesis of the narrative and interactivity is the notion of agency, which informs both ludic and narratological consciousness. Thus, in the material, generational evolution of interactive story-space, negotiations between narrative-spatial harmonic and disharmonic practices inevitably take place in the orthogenesis of spatial colonisation, potentially threatening or enabling narratological ends.

“Change is the only constant in life” is often attributed to the Greek philosopher, Heraclitus. As spatial-narrative orthogenesis constitutes a clear pattern in the development and evolution of story-form, it should be assumed that patterns characterising the disruption of interactive spaces are likely to continue in narratological discourse. As technology continues to offer insights into the restructuring, arrangement, orientation and properties of story-space, issues of engagement, dissonance and harmony need to be recognised as an increasingly relevant narratological consideration, together with its methodical implementation of story production. Part of the purpose of this chapter is to define a terminology that may aid in the evolution of the development of the story-form, while taking into consideration the past, current and future instances of narratological identities. Furthermore, the chapter aims to contribute to the discourse on the identity crisis surrounding the narratological entity, a crisis spurred by the need to confront ‘interactivity’ and gaming, specifically.

Narratology and Narrative Theory have a long and distinguished history within the scholarship and field of socio-literary studies; therefore, one ought to be precise in the use of the two terms. Monika Fludernik (2009) defines ‘narratology’ as a synonym of the term ‘Narrative Theories’.

Fludernik (2009) describes Narrative Theory, as

Narrative theory – or to use the internationally accepted term *narratology* (Fr. *narratologie*; Ger. *Erzähltheorie*) – is the study of narrative as a genre. Its objective is to describe the constants, variables and combinations typical of narrative and to clarify how these characteristics of narrative texts connect within the framework of theoretical models (typologies).

As a result of the vastness of this and similar other definitions of the term, specific concepts within the term's utility are often obscured. When speaking of a *spatialised narratology*, this chapter refers to the material form through which the story-space is deeply etched into the temporal. Copley (2001) explains that narrative text is inherently connected to sequence, space, and time as key components of its representation. As a narrative form can only be experienced through space, it is not inaccurate to state that materially speaking, the manifestation of space is akin to the unfolding of the plot, which is defined as "the imitation of the action" (Woodruff, 1992). Plot and the parallel unfolding of space run simultaneously and concurrently, through two separate universes. Conversely, and perhaps more sensibly, the unfolding of story-space is consequently considered the manifestation of the actual plot in a story. If plot is how the story unfolds, then plot can only unfold through the available story-space, in whatever form the space presents itself as. Copley refers to the notion of 'narrative space' Copley (2001, p. 11) in those narratives must progress and hence move from one space to another space. Hence narrative binds movement and space. Copley reminds us those it was semiotician Roland Barthes (1974) analysed narrative movements through a series of semiotic codes, effectively rendering narrative space itself as symbolic in nature. If that story-space is symbolic and meaningful, then the symbol, the story and the plot are three corners of the same triangle, with each point being directly indexed and intersected with the other. The central issue here is this spatial-temporal narrative trinity in which the material-rendering of the action is symbiotically diffused within the meaning and the story. This phenomenological, esoteric discussion can be dedicated to another chapter to be presented in a future study. For now, the argument advanced in this chapter is anchored on the merits presented by the coincidence of the space and the story, as well as the shared meaning they present. Notably, this concept has been detailed in the concept of the *chronotope*, as conceptualised by Mikhail Bakhtin, who denotes that the story and its spatial materialisation as 'inseparable,' referring to the merger of meaning and rhetorical space as 'flesh' and 'concrete', cementing space as being meaningful and synonymous with the story (Bakhtin, 1981). While Bakhtin discusses the

chronotope, making particular reference to the novel, he also perceives the chronotope(s) as organising centres for the narrative (Bakhtin, 1981). Subsequently, the chronotope has commonly been applicable to the multiple modes underpinning various narrative forms other than the novel. The ramifications of this notion are that in narratology, space is not superfluous to the narrative, but rather symbolic, rhetorical and engrained in all aspects of the plot. This understanding is important as the discussions in this chapter dwell not only on the representation of space, but also on the engagement of it, specifically the instances of spatial-narrative interactivity and the ‘play’ or gaming. Hence, the form of interactive and ludic-orientated forms of space is, by its nature, incidental to the methodical unfolding of the plot (Murray, 1997).

Semiotics of orthogenic-narrative spatialisation

Semiotics involves an interpretation of signs manifesting through systems; hence, the concept is less concerned about the signs themselves but more about the meaning system underlying their signification. Thus, the spatializing of narrative becomes attuned to some sort of material form. Spatial representation becomes symbolically charged with the goals of narrative. As technology develops, the tools of design and, consequently, the processes and methods of content engagement also develop. In other words, as technology develops, so does the potential for alterations being made to story-spaces. For example, a theatre production would use the theatre stage as its particular story-space. From the dimensions of the theatre-audience relationship, a specific story form finds efficiencies in the translations of actions into meaning. Not all theatre productions share the same space as, in fact, every single reiteration of a different play uses space differently. Semiotically speaking, the relevance of a story-space is embedded in how it informs meaning. This understanding extends to how the space is configured and how all other forms of composition are considered, including lighting, music, props, wardrobe, and sound as well as anything that really manifests materially. Furthermore, the story-world-audience relationship configures the relations of space between the story and the space. Thus, this configuration is crucial in highlighting the unfolding of their meaning.

In theatre, the relevant questions to be posed could be: ‘What seat is the spectator in?’ Different seats will alter the spatial configuration to the stage, thus affecting the audience’s experience. What are the conformities, or rules, a spectator must engage with to facilitate the unfolding of the plot? Physically, the non-interactive theatre production requires the audience to be on time, keep quiet and wait until there is intermission to move and speak. Psychologically, many devices, tropes and tactics are unearthed to stimulate a response from members of the audience. All the above are variables in various negotiations that consider the meaning making process, whether physical, psychological or both. Apart from the seating arrangement, moving from seat G4 to seat G5, the story-space and the nature of the unfolding plot shift dramatically if any of the above spatial parameters were to be altered. The relationship between the story-space and the plot manifests in any mode of the narratological discourse. Having had discussions with a sound designer who understood that the same film can be experienced differently depending on the seat allocation, as the sound design is optimised for one seat in the cinema, the researcher appreciates a similar truth relating to the visuals. For example, a viewing may alter from seat to seat in a movie cinema when considering the luminosity, angle, and the modular transfer functions that relate to contrast and the perceived resolution (Stump, 2021).

A discussion of interactivity, or more specifically ludic game-play, reveals that the phenomenon is a property of story-space which drastically recalibrates the unfolding of space and subsequently that of the plot. Semiotically, this can be discussed in relation to the developments occurring in gaming, which relates to the traditional forms of play, but through which narrative elements tend to continually and progressively creep in. I refer to this progression characterising the way narrative infiltrates gaming as orthogeneic-spatialisation. Much in the same way as theatre space exploits a production space to be transformed into a fictional diegetic space of its own story-world, games are situated in a fictional space of their own designs. In order for the narrative to manifest, it needs to synergise with the space and plot of the video-game in question. Orthogenesis-spatialisation provides a developmental framework to which these developments can relate.

Spatialised narratological orthogenesis

The term orthogenesis refers to a ‘directed evolution’ (Popov, 2018) that contrasts with notions of natural selection and Darwinism. It has even been associated with a sort of mysticism, in the sense that evolution follows a predetermined invisible force. “According to the concept of orthogenesis, evolutionary trends follow some internal laws just as crystals grow to acquire a certain shape” (Popov, 2018, p. 2). The term originated from the work of Heinz Werner, who postulated that organisms have a tendency to progress from a state of relative generality and lack of distinction toward a state characterised by greater differentiation and hierarchical integration. (Werner, 1957). In a narrative setting, this invisible organiser situates itself in a manner that is similar and congruent to the artistic rendering of space and time. Assuming that the general narratological principals are implemented within any particular story production, upon a narrative’s designs becoming crystallised, the spatial dimensions of the narrative are designed in such a manner that enables space to propel the plot. Hence, spatial relations are not neutral but are rather directed, or much like orthogenesis, they retain a predisposition that enables organisms to “vary in certain directions” (Popov, 2018). For this metaphor to be adopted, organisms must be substituted for some form of a unit of narrative space and time. Deleuze’s (Deleuze, 1989) time image is loaded with film-related connotations, and the researcher is unaware of any such literary construct that is specifically bound to a unit. As such, the researcher poses a hypothetical question to Chat GPT to entertain a thought experiment of what a unit of Bakhtin’s chronotope might be referred to as. It returned the following:

Temporal Spatial Unit (TSU): A TSU represents a specific moment or segment within a narrative where time and space interact and contribute to the overall meaning and structure of the text. It is a qualitative measure used in literary analysis to examine how the chronotope operates in a given narrative. The size or duration of a TSU would vary depending on the specific narrative being analysed and the degree of temporal and spatial interplay within it.

The artificial descriptions of the TS unit may be rendered problematic owing to their stance oscillating between qualitative and quantitative measurements, as literary theory relies largely on interpretative processes; however, it does provide an image of how such units may be conceptualised as organisms which shift in form as time marches on. This is helpful in understanding the discussions that follow. As the narrative colonises new arenas, these ‘organisms’ or TS units can be understood as acclimatising to story-spaces with an increasing efficiency in the effective constructing of a material plot. In order for orthogenic spatialisation to be appreciated, it must be understood through its incremental infiltration into story-spaces over a period of time.

This is evolutionary in the developmental sense of the term. Another evolutionary concept is Modern Synthesis which, according to Kull (2021, p. 51) is “the process based on choice and learning, i.e. on semiosis or interpretation, [that] provides the adaptiveness profoundly independent of natural selection”. If this statement is remediated from a biological evolution to a narratological evolution, then it can be deduced that it is the semiotic adaptivity that is based on generational learning that metaphorically relates to the infiltration of narrative codes into new spaces. For an example, this occurs where engagement is not spurred on through previously undeveloped technical advancements alone, but rather through efficiencies in the available technology. What is unclear in the translation of Modern Synthesis into orthogenesis when applied to technological innovations with story is whether such evolution is independent of natural selection. Whether or not natural selection is in effect however, what we can observe is a clear pattern of continuous efforts of space to propagate narrative experiences.

AN EXAMPLE OF SPATIAL ORTHOGENESIS SPURRED BY TECHNOLOGY

One particular example attesting to how space efficiently ‘seeks’ a synthesis with the dimensionality of its canonical arena would be what has been identified by Nintendo Gameboy Designer, Gunpei Yokoi, in his book

Yokoi Gunpei Game House, as *kareta shikō* (技術の水平) which translates directly through Google Translate as horizontal *shikō* of *kareta* technique, which can also be considered “lateral thinking with withered technology” (Nevala-Lee, 2014). This practice combines innovation with an established learning curve to avoid expenses associated with the development of new technologies. Non-established learning curves such as approaching game design in an innovative, new and untested manner are generally more expensive and riskier as they involve a barrier impeding entry into the market. Learning curves may also apply to learning the rules of a new game or interfacing with a new technology. Gunpei’s design philosophy was epitomised during Nintendo’s domination of the North American handheld gaming market in the late 1980s with the invention of Nintendo’s handheld console, the Gameboy. The Gameboy and content which appeared through it, serve as an example of space being reworked to enhance engagement resulting from new technological orientation. In this case, engagement was achieved through the design efficiencies induced through simplification of technology. Other handheld gaming devices outweighed the Gameboy in terms of technical specifications, yet they failed to receive a favourable market share due to the Gameboy’s dominance. However, the technological sophistication of the Gameboy resulted in a simplification of game design which proved to be effective with players. Thus technological sophistication was compensated for with simplified and effective design strategies.

While the example cited above arguably focuses on the game design and not the narrative design, it does illustrate how space may undergo a temporal shift in order to meet ludic-engagement ends. These gaming spaces, however, would become increasingly staggered with colonising forces generated by the narrative form.

Narrative colonisation

Generally, the writings of both Frasca and Aarseth (2012) warn of the forms of imperialism evident in the classifications of gaming and the narrative

1 Yokoi, Gunpei and Makino, Takefumi. *Yokoi Gunpei Game House* (横井軍平ゲーム館 Yokoi Gunpei Gēmu-kan?). ASCII. May 1997.

tradition. This signifies the convergence of two spheres of spatial meaning systems, namely the video game and the narrative. This brings up an issue of remediation that needs to be noted in the unfolding of orthogenic spatialisation and this issue is closely knit with issues of colonisation. Remediation can bring a tricky insight into the development of the story-space progression. Here, ‘progressing’ is used in the developmental sense of space, and not necessarily in the hierarchical one. The term *remediation* runs the risk of compromising conceptual identities which often result in competing and contradictory meaning systems that are often mistaken for representing things that they are not. The new space is thus measured and indexed using a meaning system that is both familiar and foreign to it. Implementation of remediation from one meaning system to another is most often a precursor to, or alternatively, is the birth of something entirely or not entirely new. This leads to a conceptual paradox, which involves mixing familiar and unfamiliar meaning systems. Doloughan (2011) identifies this paradox as a narrative adaptation to ‘new sets of circumstances’. Ng (2021) understands this scenario as the shifting of boundaries, something which explicates the changes in media evolution. Chrzanowska-Kluczevska (2022, p. 9) sums this up in her semiotic discussions of boundary by citing the works of Lotman (1990), whose discussions of textual frame in *Universe of the mind* (1990).

Lotman dubbed transgressions of textual borders transcoding, which in contemporary parlance is a clear manifestation of *transmediality*. Therefore, I propose to analyse the concept of frame in relation to Intermedial Studies (cf. Elleström, 2014). Such crossings of boundaries between different media/modes/modalities are simultaneously creative and potentially confusing, in that they display a semiotic collision of artistic codes and require a heightened processing effort on the part of the addressee.

Ng (2021, p. 30) refers to framing in a similar manner when she notes that “boundaries do intense work. They direct attention, provide meaning, include and exclude, allow and withhold access”. Gómez (2022) observes that in instances of remediation, authorial decisions made by designers

are required in meaning renegotiation. This then shifts a degree of onus onto the audience to orientate meaning within the liminal boundaries of such spatial framing, which accounts for the issue of ‘heightened processing effort’ suggested by Chrzanowska-Kluczevska (2022). This need for audience–relearning, which is based on reframing and, resultantly, the reconfiguration of space, has revealed itself in several modes of developmental storytelling forms such as Virtual Reality (Leonard, 2020), 3D cinema (Weetch, 2016) and digital comics (Tomaselli, 2015).

AN EXAMPLE OF NARRATOLOGICAL REMEDIATION INTO SOMETHING NEW IN DIGITAL COMICS

The development of digital comics, for instance, has seen comics attempting to relate meaning systems designed for the page to be remediated onto a screen space. Movement translation forced the reconfiguration of space and, subsequently, meaning systems underpinning printed comics. Many do not concede the notion that comics move, erroneously considering them a static medium. If the space cannot ‘move’ in a comic, then the comic would have no room for progression to take place, as it would be stuck in a vortex of its own timelessness. The fact that the story *moves* means that the space *moves as well*, which is proof of comic *movement*. What did differ dramatically between the printed and digital comics were their temporal indexes. This is effectively not dissimilar to the shift of temporality that Doloughan (2011, p. 9) speaks of in the light of semiotic adaptation to new technologies, in stating that “the temporal over the spatial can be challenged”. This is what D’Armenio (2022) subjects to discussion when indexing the kinetic and visual syntax as a rhetorical stamp for a particular narrative instance. In early digital comics, movement was autonomously and continually animated. These digital comic renditions were generally referred to as motion comics. Rhetorically speaking, motion comics employed a meaning construction system that was closer to watching an animation than reading comic books. Having realised the limitations of the comic remediation of motion comics, a group of comic veterans teamed with engineers, storytellers and design practitioners collaborated to form the entity called *Madefire*, whose in-house and independent creators

instituted a newly configured temporal index to digital comics, which attained a fit much closer to anchoring meaning construction through ‘comic grammar’ than that of typical motion comics. To cement the distinction between motion comics and the design philosophy of Madefire, the term ‘*motion books*’ was copyrighted and implemented in the identity of the new hybrid animatic-reading form. Unlike motion comics, reading systems became synthesised with a sense of reader control, hence the term ‘books’ in which the reader retained some practical control over the unfolding of the digital ‘page’. Thus, the term ‘books’ became proprietary in the naming of the genre. As a result of this new reader-based control, many fundamental elements of the meaning construction in the printed comic genre were remedially incorporated into the meaning system of the motion book. Breaking away from the rules of the fluid movement of animation, the motion book reintroduced panels, word balloons and frames with a reinvigorated sense of significance in the role of movement and plot organisation. Upon questioning the chief creative officer, Liam Sharp, about the identity of the motion book under the nesting of a digital comic book, I was redirected to consider the whole thing as ‘something new entirely’ (Sharp, 2014). Dooloughan (2011) identifies the interpolation of one text into another as a ‘new’ text. Hence, the story-space, while indexing the hybridity of the old (comics, film, animation, interactivity), was less an exercise of remediation and rather a new spatial chemistry all together. Similar to Gunpei’s design philosophy of the Gameboy that leveraged rules already learnt, the motion book shared issues similar to that of 3D film and virtual reality in which new narrativised spaces required familiarity with new meaning systems that enhanced an appreciation of their authenticity. Authenticity, in this context, does not only refer to their uniqueness, but also to their effectivity in terms of the expression of narrative spaces. As long as meaning systems are indexed to an identity that is foreign to them, they will be appreciated as something that they are not, which means that they cannot be appreciated for what they are. Hence, there are conceptual barriers inhibiting entry into events of new and emerging spaces. In instance of print and digital comics, it appears that remediation will remain so until such a time there is something new. In instance where there is something new, the grammar of the

field itself is, by its nature, relatively young and dynamic. The storytelling 'rules' of new spaces have not necessarily had time to become established resulting in a vacuum between creators creating rules and the audience learning the rules.

NEW SPACES AND ORTHOGENESIS

It is between the remediation of teething rhetorical identities to transition into something new where new literacies are learned that the orthogenic narrative 'force' realises its evolved identity. Processes such as invasion and colonisation have become a grammatical foothold moving into a new spatial-narrative meaning system. The Lumière brothers may have, found themselves in a similar position when developing film language to that of virtual reality (VR) today (Brillhart, 2016; Leonard, 2020), in so far as 'film grammar' was a young, emergent idea that had not yet fully embraced the space of its modality. As a medium film became self aware of the uniqueness of its form. What followed was the incremental shift in the artistic treatment of screen space. Film history embraces the creative reworking of screen space from film practitioners such as D W. Griffith, Sergei Eisenstein and Leni Riefenstahl, who artistically exploited the space to heighten dramatic meaning. The potential for the manipulation of space towards narrative ends was imminent. Consequently, the film practitioners developed their craft and these new ideas of space were moulded into the grammatical framework. Eventually, the film was clearly set to depart from its predecessor, the theatre, and not be mistaken for a watered-down play, but rather had to be recognised for its own unique identity. Hence, this example of orthogenesis in narrative spatialisation denotes how space has crept into a developing medium to exploit narrative ends.

As such, meaning systems, including narrative designs, are forged incrementally, staggered over time and tend to incur issues of teething with that which works and that which does not. Many of these exercises fail to break through the various technological and market-related impediments, as evident in the sales of Nintendo, Virtual Boy, Madefire motion books and the general reaction to the 3D television and the film. However, contributions to knowledge of these short-lived spaces are immeasurably

important to the development of the narrative genre. It is now worthwhile to turn attention to the remediation, or perhaps confrontation, of narrative meaning systems with an increasingly common teething issue within the designs of new narrative spatialisation. Specifically, the hot-button term ‘interactive’ presents a crossroads of hybrid meaning anchors.

Narratology confronts Ludology

Interactive mediums are in themselves nothing new. In fact, a few pages over, in this volume of Semiotic insights, Massimo Beato discusses ‘userly narratives’ which investigate how the interactive relationships between the audience and the text shape meaning. In this instance, space is not a narrative backdrop, but rather an actor, and as such, space can be considered a performance text (Beato, 2025)

To relate interactivity with narrative orthogenesis, it is worthwhile to turn to a well-developed example of the interactive spaces of the video game. Gaming has the technological ability to facilitate both gameplay (ludology) and the story (narrative), thus retaining the potential to relate the story through gameplay. The teething issues discussed earlier in this chapter play out quite strongly in this field, reconciling both engagement forms into something seemingly new yet paradoxically also unfamiliar.

In recent decades, discussions and debates have increasingly focused on the relationships between narrative intersections and gameplay. Considering that the narrative behaves in a fashion similar to the concepts of ecological colonisation in response to orthogenesis, it can be noted that a framework may be developed to enhance a continued discussion of narrative-ludo intersections. A video gamer’s engagement need not necessarily be narrative-based. Traditionally, gaming tended to veer toward engaging the end-player through tactics such as video game mechanics, which various video game magazine writers refer to as ‘gameplay’. The narrative, at least in the writer’s opinion, was an afterthought at best. It was unnecessary to relate to an event and a character in order for the game to be enjoyed, although the same could not hold sway for the actual gameplay.

The narrative did, however, begin to etch its way into the gaming fabric. *Donkey Kong* (1981) broke away from the generic characters of other

video-game franchises of its time by applying a distinct character to the storyline. Donkey Kong sufficed in terms of exhibiting the common fundamental narrative characteristics of antagonist, hero and story-driven obstacles constructed with a beginning, middle and end. Other games of the early 1980s were more generic in their hero characterisation, and these include *Frogger*, *Pacman*, and *Space Invaders*, where the protagonists were interchangeable and lacked even a first name (excluding 'Pacman'). Originally, 'Jumpman' was a generic name assigned to the protagonist in *Donkey Kong*, until such time as the character developed into Mario, which spurred larger diegesis with the *Super Mario Brothers* and other related franchises. Game world, event, context and characters became authenticated and started forming characteristics of developments recognisable by narratological constructs. Unlike *Frogger*, *Space Invaders*, etc, Mario separated itself from the rest, introducing a unique backstory. *Donkey Kong* took inspiration from *Popeye* (Iwata, ND), the original inception for the intellectual property of what would eventually morph into the Mario franchise, until such a time when licensing disputes rendered negotiations void (Iwata, ND), and it was at this stage that a new intellectual property, Mario, was born. *Popeye* has been mentioned as it suggests that the game designers intended to launch into an already developed narrative stream. There has been incremental and orthogenic edging of narratological discourse that progressively intertwined itself into the game design. The seeds for character and the subsequent storylines binding gameplay with the narrative had been sewn and interwoven into methods of engagement. In the examples discussed here, the narrative had been utilised in a more meaningful method now than previously. Its progressive colonisation within the engagement paradigm would manifest more potently over the coming decades. While Mario was primarily considered a game, it succeeded in developing clear building blocks for a complete storyline. The narrative, however, was still generally considered more of a backdrop than a frontrunner in the video-game engagement formula.

The narrative was initially rendered a backdrop for gameplay and, consequently, a secondary consideration for gaming. Arguably, the available technology did not easily allow the potential for a meaningful drive

towards narratological primacy, partly due to the technological constraints impeding game making. The narrative and the ensuing technological developments intertwined generationally, thus impacting on each other. The narrative would continue colonising new spaces in the gaming genres that welcomed it. Inevitably, the new mix of space and technology would bring with it new methods of engagement, incorporating aspects of both gameplay and narrative. The trend of narrative colonisation occurring in gaming, which embraced narrative in the engagement strategy, would incrementally continue over the subsequent decades with the emergence of games from such franchises as *Myst* (1993 - 2005), *The Resident Evil* (1996-2023), *Metal Gear Solid* (1998-2023), *Red Dead Redemption* (2010-2023), *Cyberpunk 2077* (2020) and *The Last of Us* (2013-2020), among others.

One particular thread communally shared by the above games was the effective integration of the narrative form into gameplay, which coincidentally blurred the lines of engagement primacy between the two. While the above titles are generally classified as video games, they rhetorically opened the door to the inclusion of the narrative as an engagement tactic wider than the gaming field has previously ventured into. In particular, *Bioshock* controversially spurred the term ‘ludo-narrative dissonance’ a term coined by Hocking (2007) who indicated that “the experience of playing *Bioshock*, the game’s two competing architectures, the narrative (storytelling) and ludic (gameplay), come into direct and dissonant conflict around a player’s allowances” (Kerner & Hoxter, p. 2019, 139). In fact, this entire rivalry has been well-established in online games boards and blog posts for decades now. Academia was not remiss in this onslaught, albeit with use of fewer exclamation marks. Janet Murray’s *Hamlet on the Holodeck* (1997) launched a discussion on *Tetris* as more than a skill-based game, but one that engages meaning as a self-referential and expressive activity of ‘symbolic drama’ (Murray, 1997), which spurred heated rivalries among notable academics whose names I shall not mention here. It might be remiss not to at least acknowledge this debate which was too bold to be ignored in this cultural, anthropological, and developmental history. However, it

2 https://www.clicknothing.com/click_nothing/2007/10/ludonarrative-d.html

would not suffice to railroad this chapter into that heated exchange, as it is duly covered elsewhere (See, Janet Murray's - Read The Last Word on Ludology v Narratology (2005) for more).

Fast-forward a few decades on since the inception of the computer game and, it has become orthogencially clear that mechanical and narrative systems have interwoven into a design path to enhance both narrative and ludic forms of engagement at the same point and in a manner that is not easily achievable through non-interactive story forms such as the film. Games like *Red Dead Redemption* and the personally favoured, *The Last of Us*, have been credited with tightening the designs of the ludo-narrative boundary (Seraphine, 2016; Grabarczyk & Walther, 2022). This technological-narrative-gameplay triangle has spurred new questions regarding forms of tactical, engagement strategies. The difficulty of mitigating dissonance in design concerns the hurdle encountered when optimising both narrative and ludic goals simultaneously. An analogy for this is to take two sets of athletes from powerlifting and marathon running respectively. The champion powerlifter would likely not fare well when faced with the requirements of a runner. The muscle fibres, cardiovascular, dietary and training needs may conflict with the end goal of powerlifting, if the end goal is marathon running. Likewise, the marathon runner would be unlikely to move the powerlifter's weights. Finding an athlete that excels at both sports would be difficult, as the principals of the effectivity of both ends tend to reward achievement of antagonistic goals. This would most likely result in the emergence of a jack of two trades and a master of none. Likewise, the principles of gameplay and the narrative form have been noted to conflict. Murray (1997) states that "narrative satisfaction can be directly opposed to game satisfaction". There is "a direct, immediate conflict between the demands of a story and the demands of a game. Divergence from a story's path is likely to make for a less satisfying story; restricting a player's freedom of action is likely to make for a less satisfying game" (Costikyan, 2000, cited in Jenkins, 2004, p. 118).

Another analogy considers the anecdote where a fish does not measure its intelligence using its ability to climb a tree. By implication, when the goal is tree climbing, a monkey is a suitable candidate, and when it is

swimming, a fish is an appropriate choice. In the last few decades, divisions between gaming and the narrative genre were similarly considered on the basis of the characteristics of both forms of engagement. The games mentioned earlier, such as *The Last of Us*, have turned this expectation on its head, thus effectively merging the narrative genre and gameplay into a single force. The lines between the two concepts have increasingly become blurred, with both characteristics and designs of ludology and narratology having been synthesised into each other. The door of enlightenment ebbed open to possibilities of ‘swimming monkeys’ and ‘powerlifting runners’, indicating that it may be plausible to achieve a deeper level of engagement by not only avoiding the ludo-narrative dissonance, but also by cultivating a ludo-narrative harmony, a concept also recognised as ‘ludo-narrative resonance’ (Toh, 2010). The result of effectively streaming interactivity with a narrative architecture spurs a creative narrative-ludic engagement that offers potency remiss from other modes of narrative experiences. Hence, such authentic creative spatialisation becomes orthogenic in the rhetorical evolution of narratology. A common thread to this scenario is the inclusion of ‘interactivity’ which in turn mounts potential for several other considerations, such as agency, control, dissonance and spatial configurations between the audience and the story-world.

Interactivity, control and dissonance

Apart from games, specifically, interactivity in general is problematic for the narrative form (Anrick, 2016). The term ‘interactivity’ can be interjected into the field of ludology as it provides it with a sophisticated means of engagement through an interactive framework, that is, game mechanics. The game designers configure the way players experience the world (Swink, 2009). A core issue existing between the goals of the story and gaming relies on the methods of plot production (Murray, 1997). The relationship between control and immersion is reorientated during execution of these two frameworks. A discussion of similar conundrum has been presented, considering issues of depth in narrative materialisation, in which the density of the spatial dimensions color the density of the plot. The general concern is that density may dilate the effectivity of the plot by hijacking its immersive

focus. The audience's focal point becomes fixated on issues of the sensory format of the plot rather than its unfolding. Hence, story creators need to fundamentally reorientate themselves with the temporal index of the narrative through which they mould their story-world. These instances play out in any form of the heightened density of the field and are commonplace in virtual reality as well as in 3D and 2D films. The reorientation of spatial density considers that a dilated space-time continuum affords a control to the end-engager who may start to 'explore' the narrative world, which may veer off the road the storyteller is plotting. In issues of depth and density, such as virtual reality, the participant physically may look around the virtual world for the sake of curiosity or some other exploratory purpose. These actions may meander from the dramatic architectures so meticulously prescribed by creators in crafting a narrative pathway. Simply put, implementations of depth have, in some instances, been subject to criticism owing to distractions from the core essence of plot.

Turning back to the axis of agency and plot, the axis of control is pivotal to the unfolding of plot in the gaming genre. In the gaming space, all the elements of plot need to be funnelled through an engager wielding a degree of control, and who thus at times, requires convincing to engage with the plot. Gaming retains distractions, not only of depth, but also more pertinently to the discussion at hand, distractions of the actual game mechanics. As discussed earlier, game mechanics are, well, the game-play itself. They are the reason why many people play games in the first place. The issues introduced via interactivity work, in a similar fashion to the distractions of depth where game-play becomes the point of focus, often play out to the detriment of the narrative's points of engagement.

As a creator of Madefire motion books, the author can relate to the general concern shared by fellow motion book creators concerning the use of parallax, which afforded a reader-based manoeuvrability of two-dimensional comic layers to appear to move over each other on touch. This could be considered a limited form of interactivity. The idea was to invite the reader to play on the depth of the image. If, for example, the plot needed to ramp intensity before dissipating into descent to bathe into the moment held by a particular image or panel, a creator might consider encoding

those images into a parallax. Narratively speaking, this was a risky decision, as the concern was that the act of moving the images might take the reader out of the plot-driven moment. The reader was supposed to focus on the world and stakes that had been created at that moment, and avoid the distraction of a shiny new toy. If not integrated effectively into the plot, the general word thrown around with the use of parallax as well as other afflictions of the digital space was ‘gimmick’. In this case, the design philosophy was that the narrative leads while interactivity follows. In this way, ‘interactivity’ is used in a manner in which it becomes an entry point to narrative engagement.

Many games, however, reverse the above-mentioned philosophy, with plot having been designed to set the table for the primary draw of the gameplay. While this approach may make for satisfying games, the stakes for the narrative are generally diluted. The lack of consequential actions compromises the integrity of plot stakes. For instance, if a character dies, but re-spawns, then the stakes of the character’s death are diluted when compared to those from a novel, for instance.

ORTHOGENESIS THROUGH REMEDIATION INTO SOMETHING NEW IN THE CASE OF LUDOLOGY AND NARRATOLOGY

Initially, such a design-related tension was noticed among scholars who began to write on the existence of narrative, inserting itself into the identity of gaming. The colonisation and development of narrative is noticeable when sampling readings from the discussions that had been unfolding over the decades, as ludologists gradually accepted narratology as native to the field (Wetzel, 2020). Narrative seems to have been tentatively sealed as a non-foreign and even indigenous object in gaming spheres (Cheng, 2007), particularly in the last decade (Zaglo, 2021). This latter period has spurred instances that mitigate dissonance, increasingly suggesting the potential for harmonic congruence between the two engagement forms.

Referring to the earlier comparison of density versus plot, one orthogenic response of the new depth infused spaces was to consolidate and integrate the antagonising designs into a single force. Density and depth became meaningfully interpolated into the plot. Depth becomes meaningful

and even imperative to the unfolding plot, thereby concretising depth and plot into an inseparable entity. The aesthetic integrations of space become core to the unfolding story, and not superfluous to it. Depth becomes a storytelling tool. The space becomes rhetorically reliant on depth, with plot unfolding in a manner unachievable without it, such as the negotiation of presence in virtual reality. This requires a reorientation of the space and creates meaning that is different from the cousin, that is, motion books and comics, film and 3D film as well as 2D or 3D video games. As the medium becomes something new, the plot re-articulates the unfolding of the narrative in a new manner.

The unfolding of the plot, as in gaming, materialises through the gameplay. As Druckman states, a lot of storytelling happens through the joystick (Druckman, 2014). This potentially reorientates the game mechanics from plot distraction to plot articulation. This pivot, however, is not remiss in issues of dissonance. In fact, it is this pivot that is often central to the issues of dissonance, as gaming mechanics open a strategic shortcut to issues of agency. Plot becomes reorientated so that it focuses on agency which potentiates a sharp sword of the narrative ends. Gameplay becomes inseparable from plot, resulting in a common anchorage on issues of agency. An example of this scenario is evident in the control afforded to a player in the navigation of a video game, which negotiates between “interference between intent and result” which directly correlates with the necessity of player intuitiveness (Swink, 2009, p. 26). Game designers mediate and attempt to mitigate dissonance between the intended roadmap of the game and any potential dissonance, while empowering agency.

Agency and the potential for harmonic congruence

Narrative implementation in a space is what this chapter refers to as ‘spatial colonisation’. Narratology that seeks harmony within a space is what the author refers to as ‘spatialised-narrative-orthogenesis’. The erosion of narrative dissonance is considered ‘ludo-narrative harmony’. When mapping the trajectory from Pong to the modern-day 2025, the narrative can be regarded as having become increasingly sophisticated in its designed infiltration of gaming and interactivity in general. An anecdote

that symbolises the merger of game and story is the title screen of *The Last of Us 2* (2020), in which there is no option for the game as there is only an option for the story. *The Last of Us*, was highly praised for its foray into ludo-narrative dissonance and this suggests a closely-knit fit of gameplay and narrative, which are fused into a single entity. Tellingly, the game self-identifies as a story.

The thematic principal actioned in the film *Never Ending Story* (1984) was that *the Nothing* will crumble the world of Fantasia, unless Sebastian can counter it by reigniting imagination within the world. This principle extends to any narrative world. If the world is not actively engaged with, it becomes meaningless and ceases to exist. In this way, the only solution to its continued existence is to engage with it. The spatialisation of a novel may regulate forms of interactivity to psychological interaction but that is different from denying the existence of interactivity in narratological processes. It is, in fact, this existence that is essential to the world's construction of meaning. Hence, participation is a natural part of not only game mechanics, but also of the narrative genre as well.

Hence, interactivity has always been part of gaming and, likewise, storytelling. This commonality is already shared by both ludology and narratology. The only remaining issue seems to revolve around how interactivity makes itself available to the plot. In writing and reading around this chapter, the author has constantly been grappling with the memory of undergraduate scriptwriting feedback regarding our third-year play scripts, remembering being somewhat startled at the redundancy of the statement. However, in light of recent discussions held in retrospect, the writer is now unsure of the redundancy of the statement.

The third-party examiner expressed to the group the nature of narrative scriptwriting, saying that it is a game that we are playing with our audience. A *game*. As a script writer, I remember being upset as my script clearly did not telegraph as such; however, the general understanding was, and still is, that the nature of the story exercise was a form of a game that requires participants. It has neither been true, nor ever occurred to my best knowledge, that narratives are not games that have been in question. The only question is how those games effectively spatialise in the unfolding

of plot. Production-orientated theories require this understanding. As Doloughan (2011, 8) notes, in discussions of extending reading to multi-modal narratives, textual designs of the story-world experiences “serves as a kind of roadmap”. A more totalising stance considers that one cannot fully appreciate the puppet show (reception) until they have appreciated the strings that are pulling them (production). The catch-22 situation here is that the strings are designed to be invisible, rendering them difficult to identify and easy to omit in theory that focuses on reception studies only. The audience may not know that they are playing a game. They may not think about their engagement in the game. Yet the audience is, by the nature of engaging with the story, forced into the game. A common thread of this form of gaming is the above-mentioned invisible strings. The common understanding informing participation is the unspoken agreement to not pay any attention to the strings. Generally speaking, in order for a story device to be effective, it should not draw any attention to itself (Favreau, 2016). This is an appealing concept to the objective of engagement of any nature in general and narratives in particular (Thompson et al., 2018). Conversely, the visibility of poorly crafted codes tends to break immersion and, thus engagement with the content. This is reminiscent of another early lesson that was first solidified in post-graduate video production in which a particular student was criticised for her camera work in which a locked-off shot was interrupted by a slight camera bump. The reason given for this adverse criticism was that anything that takes the audience out of the moment breaks the engagement of the moment. However, this should not suggest that any camera bump breaks the engagement of the moment, as proven in third cinema style and the shaky-cam coverage. What can be deduced here is the practice of appropriate and, subsequently, efficient spatial interpolation meant to express the plot. If this general principle of the story is applied to gaming, I believe that it can shed some light into the debate around the ludo-narrative phenomenon. When game mechanics are heavily immersive, they run the risk of distracting from the plot when lensed through a narratological design, favouring the moment of interaction to the detriment of the plot. Conversely, when the same interactivity recedes and becomes invisible in its design, it often signifies the existence

of ludo-narrative harmony. The interactive game-mechanic becomes interpolated into the plot, rendering the strings invisible. The boundary between interactivity and the story becomes merged with the sediments of both forming a concrete whole. To return to the anecdote from the *Never-Ending Story* protagonist, Atreyu, who indicates to the agent of *The Nothing*, the Gmork, that the goal of his quest lies beyond the boundaries of *Fantasia* to which the Gmork responds, “Silly boy, ... it (*Fantasia*) has no boundaries” (Gmork, 1984). Thematically, this translates to the notion of immersion which closes the gap between imagination and reality. In other words, the role of immersion is to destroy boundaries.

This chapter offers pertinent thoughts about and instances where ludo-narrative harmony becomes rhetorically anchored in considerations of agency.

Conclusion and trends - erosion of dissonance

The ensuing debate can be perceived through the converse lens in the sense that instead of the narrative being colonised by ludology, the latter is colonised by the former. If orthogenesis is an applicable phenomenon, then it might be entertained by observations of increasingly developing examples of ‘sweet-spots’ between the two, in which the mechanics of gameplay merge with the constraints of the narrative, which occur in a harmonic fashion.

As orthogenic-narrative-spatialisation continues, especially in the instances of interactivity, ludology or whatever it is to be called, continues, and the above recognition of harmonies lends itself to becoming increasingly moulded into the narratological discourse. A common thread in this singularity boils down to the issue of agency, which is an axis pivoting dissonance and harmony. Spatial designs that relate to the agency of the game player centre or hinges plot on the subject which, if utilised appropriately, becomes a powerful storytelling tool. Orthogenically speaking, there is substantial evidence authenticating the view that the launch of a third space bound in agency works towards story-driven motives that correlate with the heightened stakes in the consequences of gameplay. The result is a story-form that can only be achieved through the playful designs of such an agency.

If the phenomenon of narrative colonisation and orthogenesis continues, it is not inconceivable that these principles will infiltrate many more forms of technologically advanced story-forms. This is now conceivable at a sheer practical level, with the affordances of artificial intelligence, in particular. It is conceivable that the complexity of commonplace narratives realises similar ends in tailoring narratives to suit the interests of highly specified groups or individuals. One only needs to consider any particular political communication discourse to consider that the same events are already framed to suit specific audiences. This suggests that the story (Fabula) does not necessarily need to shift, but rather the method of its transference should be through its telling (Shuzhet). This notion is in itself a paradox. If the shuzhet is altered to the extent of feeding distinct differences upon the defining characteristics of the story, then that in itself threatens the identity of the story rendering a modified version thereof. It becomes blurry when attempting to define the line between something modified and that which is entirely new. As this chapter circles in on earlier discussions of narrative modalities where something is something until such a time when its identity is liberated into a standalone something else. Again, a typical example is that of comics and motion books. The comic constituted its own medium, until such a time when it became another medium. Within the comic orthogenesis, spatialisation has already started. The form has evolved from comic strips to page splurges. However, the term ‘comic’ still stands. Digital comics were eventually liberated by the short-lived Madefire ‘Motion Books’ which suffice as something new. Motion Books were conceptualised and designed with their own identity – owing their homage to comics, but completely reinventing the space. This liminal identity, born out of narrative colonisation, wreaked conceptual havoc with creators and fans alike. Orthogenically speaking, the space itself was branching out with new forms of narratological expression, or as The Watchman artist, Dave Gibbons, referred to it, a “new grammar of graphic storytelling” (Gibbons, 2012). The advent of the newly developed technology allowed for the affordance of the new space to be rhetorically created by narratological designers. These identity issues have displayed themselves in other emerging narrative spaces. Leonard (2020)

makes reference to this in the development of meaning systems in immersive media that involve the “codify and calcify” process of breaking walls, which effectively describes the transformation of one meaning system into another. Initially, this sounds like remediation, until one realises that the calcification of a new code and its new spatial meaning system creates its own unique identity. As technology continues to develop, it seems increasingly commonplace that issues of ‘interactivity’ continue propagating within the narrative design.

The development of technology and the constant orthogenic integrative tendencies of ‘interactive’ or control mechanisms suggest that the current standard of ludo-narrative dissonance is indicative of a point in time when the divisions between the factions of gaming and the narrative form merge into a single understandable concept and a new entity of narrative spatialisation. Narrative practitioners may extend their production arsenal to incorporate control designs that are traditional to the realm of ludology, while the converse is true for game designers.

Ludo-narrative dissonance is nothing new; however, to recognise orthogenesis as a trend is to cement the term and consequently the concept; and prime scholars and practitioners alike keep an eye out for forms of narrative colonisation which reinvent story-space, and subsequently methods of the unfolding plot. It needs to be considered that interactivity and issues of control and agency are not superfluous to the narrative, but rather, they are a reconfiguration of spatial synthesis that results from the ludological framework. These issues are still not commonplace in narrative studies and this chapter advocates for their inclusion.

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**STORYTELLING THROUGH SYMBOLISM:
OUROBOROS AS CYCLICAL STRUCTURE OF CINEMATIC TEXT**

Alec Kozicki

This chapter examines how a cyclical structure for visual media storytelling creates an ouroboric effect that is framed within a spatial-temporal boundary which symbolizes the enclosed cycle of development for the visual text. Symbolically, it can be understood that the cyclical structure within cinematic texts and other forms of visual storytelling contain the conventions of the ouroboros, which is the symbolic serpent in the shape of a circle eating its own tail. The chapter focuses on the storytelling structure of cinematic texts, the use of the same shot for the beginning and ending of the text establishes the framework for intertextuality. This is examined by using examples from six traditional motion pictures. Bringing back into existence the opening shot as the final moment of the film provides the time and space for the viewer to reflect on the chain of meaning-making events within the text, thus providing the grounds for the viewers to experience a rebirth of interpretation. The cyclicity of a film's intertextual framework helps relieve the viewer's prior experience, and the juxtaposition of time and space portrayed in the movie provides the visual elements to enhance the narrative processes through the means of non-verbal signs (*Koyaanisqatsi* as example of pure cinema). The cyclical intertextual framing of a cinematic text creates a symbolic knot to tie off the text, and through the power of the ouroboros within visual texts the rebirth into the present unravels the significance of what-once-was.

Introduction

This chapter dives into the cyclical narration of cinematic texts and elaborates how the ouroboros on the screen is a mystique used by creators for the emergence of a potential symbolic expression interpreted by the viewers. What we will see in this research is that the cyclical structure within examples of traditional cinematic texts incorporates the notion of intertextuality,

which is the grounds for establishing an interpretation in the past, present, and future moments. Throughout the chapter there will be reference to Juri Lotman's contribution for structuring artistic texts, such as how he considers that "we can speak of the 'language' of the theater, cinema, pairing, music, and art as a while, as a language organized in a particular way" (Lotman, 1977 [1971], p. 7). The research of this chapter examines the repeated non-verbal, visual elements that establish a cyclical structure for a cinematic text. This repeated non-verbal sign that the moviegoer re-experiences at the beginning and end of the film establishes a unique storytelling technique that is analyzed through the mechanics of intertextuality. The notion of intertextuality elaborated by Julia Kristeva, allows the film creator the means to construct a reality in a space and time that will be experienced by the viewers, and intertextuality is a main component to cast the allusion that the cinematic text contains a paradigmatic relation for both the reality of the spectator and the reality depicted in the cinematic text.

The novelty of this research is to indicate how the cyclical narration within storytelling, particularly in cinematic texts, is a powerful archetypal complex that provides the grounds to structure symbolic meaning. This cyclical nature within cinematic texts resonates with the conventions of the ouroboros, which is significant for understanding how symbolic meaning emerges within the narrative structure of a cinematic text. Semiotics becomes an integral method to examine and analyze how the cyclical narration of a cinematic text allows for intertextuality and symbolic meaning to emerge. Furthermore, while this chapter explores symbols within films from various decades, it should be noted that symbology offers additional insight as a resource to elaborate on the meaning-making process when a cinematic text contains a cyclical narration. However, it should be noted that this research aims to deepen the discourse for semiotics regarding the cyclical structuring of non-verbal language, in the case of cinematic texts, as this form of structuring might be allusive to some viewers of the films which contain this type of storytelling structure.

The proceeding section begins with an overview of intertextuality to convey how filmmakers use it to show an object that extends beyond the present moment depicted within a film. The second section outlines

the components of cinematic texts as an apparatus to potentially orient the spectators' meaning-making process outside of the filmic experience. The third section is concentrated on the description of the ouroboros to aid in the analysis of the cyclical structuring of non-verbal elements within film. The fourth section analyzes six examples of cyclical narration in traditional films throughout various decades. As an end, the conclusion summarizes what was theoretically described by referring to the analysis of the previous section.

Intertextuality for life as a spectator and life on the screen

Our journey into the cyclical narration of visual media storytelling begins with discussing intertextuality, because this is pertinent to examine the framework of the repeated non-verbal elements within cinematic texts. Intertextuality derives from literary analysis, particularly under the scope of written literature, but this chapter focuses on how intertextuality can occur within the language of cinematic visual texts.

The term intertextuality was first introduced by Julia Kristeva in her work titled "Word, Dialogue and Novel" (1980 [1977]). Kristeva is a semiotician, philosopher and literary analyst from Bulgaria who moved to Paris, France in the mid-1960s. During her time of transitioning into a new culture, she followed the scholarly tradition of Mikhail Bakhtin's dialogism. Kristeva's scholarly contribution is considered as second-generation semiology, which also includes the works of Jacques Derrida, Roland Barthes, Jacques Lacan (cf. Bennett 2021). As Alfaro (1996, p. 272) mentions, Bakhtin's contribution to theory of language and the expansion of monologic and dialogic poles of literature should be viewed as a precursor for contemporary approaches to what is now considered intertextuality. Kristeva (1980 [1977]) provides definitions of intertextuality that are developed from the basis of Bakhtin's research:

1. "Any text is constructed as a mosaic of quotations; any text is the absorption and the transformation of another. The notion of intertextuality replaces that of intersubjectivity, language is read as at least double" (Kristeva, 1980 [1977], p. 66).

2. "Dialogue and ambivalence lead me to conclude that, within the interior space of the text as well as within the space of texts, poetic language is a 'double'" (*ibid.*, p. 69).
3. "The writer's interlocutor [...] is the writer himself, but as reader of another text. The one who writes is the same as the one who reads. Since his interlocutor is a text, he himself is no more than a text rereading itself. The dialogical structure, therefore, appears only in the light of the text elaborating itself as ambivalent in relation to another text" (*ibid.*, p. 86-87).

Within this research of cinematic texts, intertextuality is examined as when a cinematic shot shown at the beginning of the movie is repeated at the end of the movie. The image that the viewer perceives at the beginning of the movie is a sign that not only depicts something in the present moment of the film, but it is also ambivalent and orients perception and thought that is detached from the present time of the film. As Michael Riffaterre (1994, p. 786) indicates, "intertextuality is generated by textuality and continue beyond the text's limits" which guides reading by being a linguistic network "connecting the existing text with other preexisting or future, potential texts" (*ibid.*). It should be noted that while intertextuality typically examines how one literary text appears within another literary text, the novelty of this research focuses on how a singular visual shot can evoke intertextuality by incorporating a repeated visual shot that appears in the opening and closing acts of a cinematic text. Applying the concept of intertextuality to visual storytelling helps to examine how the repeated elements within the artistic structuring of a visual media allows the spectator to relive a past moment of signification, this allows for the unfolding narration of the story to come in full circle to end where it began. As explained later in the chapter using various examples of cinema, the repeated non-verbal sign within a film creates the spectator to formulate meaning for the symbolic meaning that encompasses the whole experience of watching a film with a cyclical structure.

A cinematic text structured as a cyclical system utilizes the mechanisms of internal and external recoding. As Lotman (1977 [1971], p. 73)

indicates, the internal recoding exists on a syntagmatic axis, which is from the perspective of the receiver of the text and is consciously perceived on a temporal plane—a spectator that is not aware of the repeated visual texts at the end of the movie that existed at the beginning misses the syntagmatic bond. The paradigmatic axis is the external recoding and is dependent on the receiver decoding the perceived information; Lotman notes how the receiver decoding the structure of a text “may want to brush them aside as nonessential, but their repetition and obvious internal systemic arrangement do not allow him to do so. And so he constructs a second system which from that moment on is superimposed on the first” (*ibid.*). This interconnectedness of the syntagmatic and paradigmatic axes establishes a moment of intertextuality for the spectator which perceives a moment of repetition at the beginning and ending of the film, in this moment the spectator undergoes the emergence of symbolic expression to interpret what-once-was for the signification at the beginning of the cinematic text.

Cinematic text as an apparatus

Since the language of cinematic texts have the components to construct and represent an experience of reality, the spectator’s irreversibility of time experiencing a film is an underlying component for the constructed storytelling narrative. This resonates with Lotman’s statement regarding how the language of cinematic texts “leads each spectator to project shots in the film not only onto the structure of his artistic experience, but onto the structure of his life’s experience” (Lotman, 1977 [1971], 289).

Concerning the spatial-temporal structure of a cinematic text, a film can be framed to end in two distinct orientations, one type of structuring is to frame the visual storytelling using a linear progression, such as an action movie having the opening scene at location ‘A’ and then a call to action that brings the protagonist to locations ‘B’, ‘C’, and so on. The second type of structuring within a film is the cyclical return to point ‘A’, such as the story ending at where it began. The research focuses on the second type of spatial-temporal structuring of ending a cinematic text, the cyclical narration used in filmmaking is a powerful device that contains the components

of the ouroboros. Lotman identifies that the beginning and ending of a text play a different role in contemporary narratives:

When a reader starts reading a book or a spectator watches the beginning of a film or play, he may not know for sure, or may not know at all, into what system the proffered text has been encoded. He is naturally interested in getting a total picture of the text's genre and style and those typical artistic codes which he should activate in his consciousness in order to comprehend the text. On the whole, he derives such information from the beginning. (Lotman, 1977 [1971], p. 216)

A film can establish an atemporal plane through the structuring of montage, which extends beyond the continuous flow of the present, and the intertextuality of the text dances in space with the borders of past, present, and future.

Film as an apparatus has the potential to influence what the viewer perceives due to the textual elements shown within the film. It is not the literary text which means, has effects, or informs; rather, it is we who assign meanings or effects to literary texts (Schmidt, 2000, p. 631). Scholars from the Frankfurt School such as Guy DeBord, Theodore Adorno, Walter Benjamin, wrote in the mid-20th century about how television and visual media can be harnessed as an apparatus to not only orient the spectator towards a spectacle, but they also express philosophical concerns regarding the conscious state of the moviegoer and the impact when the intrinsic reality is blurred with a constructed reality using language of cinema.

The familiar experience of the moviegoer, who perceives the street outside as a continuation of the film he has just left, because the film seeks strictly to reproduce the world of everyday perception, has become the guideline of production. The more densely and completely its techniques duplicate empirical objects, the more easily it creates the illusion that the world outside is a seamless extension of the one which has been revealed in the cinema. (Adorno & Horkheimer, 2002 [1947], p. 99)

For the Frankfurt scholars, the propagandizing of culture industry is an apparatus which eludes perception of reality to a spectacle, thus causing a collective experience to be cultivated around the culture industry and the spectacle itself. Culture industry presents the same everyday world as paradise, and the escape of the spectator's continual meaning-making process of reality is "destined from the first to lead back to its starting point" (Adorno & Horkheimer, 2002 [1944], p. 113). When we take intertextuality into consideration, we gain more understanding how the experienced perceptual process of epistemic truths represented to the spectator blends the intrinsic reality of everyday life and the life portrayed within the cinematic text.

Describing the ouroboros

Although an ouroboros—a snake eating its own tail—is a true phenomenon, the indoctrinated conventions amongst various cultures represent a spiritual and cosmological description to embody the symbolic meaning of the ouroboros. This research intends to examine the ouroboros as a structural feature for the language of cinematic texts, rather than to incorporate theological or cultural conventions on what the ouroboros represents for various historical-cultural systems. Examining the cyclical narration of cinematic texts as an ouroboric effect provides an understanding on how the perception and meaning of time is impacted when the serpent inserts its fangs into its own tail –i.e., a spectator of a movie seeing and interpreting a visual shot at the ending which was identical, or thematized, with a visual shot used in the beginning of the movie. For José Sanjinés (1994, p. 674), the filmmaker is "more than an imitator, the film-maker has always longed to be an alchemist."

Lotman (1977 [1971], p. 18) conveys that "the language of an artistic text is, in essence, an artistic model of the universe; in this sense, by virtue of its entire structure, it is a part of 'content' and carries information." This description provides an analytical depth to examine the symbolic meaning structured within a cinematic text that is oriented and reinforced through the contiguity of a film. The spectator's quest to identify the symbolic meaning perceived from the cyclical structuring of a film relates to

Lotman's (*ibid.*, 15) statement that "art is inseparable from the search for truth." The cyclical structuring of a cinematic text utilizes what Lotman considers as an artistic system, which is constructed via hierarchical relations that are shaped with a certain orientation, Lotman goes on to mention that, "an artistic model in its most general form reproduces an image of the world for a given consciousness, that is, models the relation between the individual and the world [...], this orientation will be of a subject-object nature" (*ibid.*, p. 265). This statement aims to bridge the relations of Lotman's notion of artistic text with the mystical symbol of the ouroboros as an embedded system of its own that occurs within cyclical storytelling for visual media. As spectators of a film, we are not only perceiving and interpreting a cinematic text's audiovisual signs that are juxtaposed within a montage, but we are also reflecting and gaining meaning through how the oriented chain of events unfold through the continuous flow of reality (Charles Peirce's synechism, CP 1.172), this indeed refers to the reality of the spectator along with the reality depicted in the cinematic text.

As described in the *Dictionary of Symbols*, the serpent¹ biting into its own tail establishes an end, and this is insightful from the cinematic text perspective concerning the process of repeating visual, non-verbal signs that have been shown to the viewer earlier in the film:

A serpent biting its own tail symbolizes a closed cycle of development. At the same time this symbol enshrines ideas of motion, continuity, self-fertilization and, consequently, of the eternal homecoming. The image's circular shape gives rise to another explanation – the marriage of the chthonian world, represented by the serpent, and the celestial world, represented by the circle. Confirmation of this interpretation might be found in some examples in which the ouroboros is part black and white. It would thus bear the meaning of the marriage of opposing principles, Heaven and Earth, night and day,

1 The serpent, as a symbol, contains a multitude of cultural significance, from an overall perspective the serpent connotes knowledge, sexuality, life-death, and construction-destruction— cf. Chevalier & Gheerbrant (1996) for more detailed description. As the first entry for the serpent, Chevalier and Gheerbrant (1996, p. 844) state, "There is nothing so simple or so commonplace as a serpent, and yet by virtue of this simplicity nothing which shocks the spirit more."

the Chinese yang, and yin, and of all the properties possessed by these opposing elements. (Chevalier & Gheerbrant, 1996, p. 728)

With this definition in mind, we can postulate that the visual shots used to create an ouroboric effect of a cinematic text provides the grounds for symbolic expression to emerge. When the viewer experiences a moment in the film that has already happened, the interpretation is relived due to the intertextuality represented in the visual shot that closes the text. Just like how the ouroboros eats its own tail, the ending of a cyclically structured visual text consumes the beginning of the text, thus reshaping the perception of what is represented. The analysis section of this chapter goes into detail on how visual shots represent iconic signs, which in the Peircean (CP 2.255) description is “any object of experience in so far as some quality of it makes it determine the idea of an object”, and due to intertextuality in a cinematic text enacted by a spectator the boundaries of iconic and symbolic representation become blended once a moment from the beginning of the film is brought into existence to close the entirety of the narrative structure.

As a magic symbol, the ouroboros serpent refers to an ending of an act in the physical presence, while also referring to the emergent forces brought forth into the realm of that which-is-yet-to-come. There are conventions that exist for a symbol to be magical even if the spectator is unaware of them, and the act of magic relates to the indoctrination and enactment of magical symbols. Experiencing what is hidden and what is revealed, such as within the perceptual process while watching a movie, can shape meaning for an object in respect to a certain form. Regarding the ouroboros as a magic symbol, Frederick Goodman writes:

[Ouroboros] is a complex symbol, for it represents many things, including the idea of cycles (which is why its form describes a circle). However, its most obvious symbolism is connected with time – with the notion that the passage of time is somehow involved with destruction, since the past appears to be lost – Time devours itself. [...] Of course, one might also argue that there is a cyclical nature about time – day follows night, the

seasons repeat themselves, and (in the occult tradition at least) lifetime follows lifetime. This cyclical nature is also expressed in the form of the snake, when it is curled into the shape of a circle. In the Ouroboros serpent, therefore, we find an excellent example of a magical symbol, for its form is designed to express in a hidden way something of the nature of the thing it symbolizes. (1979, p. 6)

As a continuation to Goodman's assertion that the ouroboros represents a hidden nature within the circle of the symbol, the *Dictionary of Symbols* provides a related excerpt to the hidden nature:

Another interpretation may see in the ouroboros the contrast between two different planes of being. The serpent biting its tail falls into the shape of a circle, a break with its linear development which would seem to mark as big a change as emergence upon a higher level of existence, a level of celestial or spiritualized existence, symbolized by the circle. The serpent thus transcends the plane of brute life to move forward in the direction of the symbolism of the circle, the image of celestial perfection. An opposite image may be conjured up by the serpent biting its tail, ceaselessly revolving around itself enclosed within its own cycle, and that is the image of the SAMSĀRA, the WHEEL of Life. As one condemned never to escape its own cycle and raise itself to a higher plane, the ouroboros symbolizes eternal return, the endless cycle of rebirth and a continual repetition which betrays the dominance of a basic death-wish. (Chevalier & Gheerbrant, 1996, p. 728-729)

With these conventions of the ouroboros in mind, we gain a deeper understanding on the nature of cyclical narration within cinematic texts. Using a cyclical structure for storytelling of visual texts incorporates intertextuality into the cinematic experience by bringing the spectator to a place they once were (i.e., a prior thought in the spectator's mind), this means that at the end of the film a non-verbal text (the visual shot) is repeated that was shown in the opening scene of the film. When a film ends at where it began there is a closed system of development, the continuous interpretation formed by the spectator of the cinematic text comes back into a circle,

this is the grounds in which the ouroboric effect exists within cinematic texts. The ouroboric effect within a cinematic text emerges as the grounds for a symbolic plane which transforms the spectator's interpretation process to not only focus on what explicit objects are shown in the moment while perceiving the visual shot, but to allow the spectator to predict the possibilities due to intertextuality of the cinematic text to construct symbolic meaning for what the film represents.

Examples of cyclical structuring in traditional film

As mentioned earlier in the chapter, the repeated visual texts placed within the temporal structure in a cinematic text are examples of cinematic language that can be used in visual storytelling to generate a paradigmatic response by the viewer. The opening temporal and spatial aspects are vital in establishing where the film is heading throughout the story with the use of montages and how the protagonist(s) overcome obstacles represented in the film. One unique method employed by directors to represent an ending is to use the identical or a similar likeness spatial-visual dimension that was used at the beginning of the film. Using this method opens a symbolic meaning for the entirety of the film that factors in the trajectory of the film's beginning and ending, along with the continuous development of the spectator's meaning-making experience as perceiving the cinematic text as a whole. The proceeding writing of this section analyzes six films that utilize intertextuality of visual shots to establish the ouroboric process for revealing the future in the present moment at the beginning of the film, which is then relived by the spectator when the present represents the past at the ending of the film.

The film *Love Story* (1970) begins with a long shot of a city skyline that tilts down and then zooms in on a person at a snow-filled park sitting alone on a bench. Extradiegetic music begins once the character is in midframe, then a voiceover of the character introduces how this is a story about losing the love of his life. After the first shot, a crossfade transition occurs which begins the story and signifies a break in the spatial and temporal dimensions; "filmmakers may use fade-ins, fade-outs, or dissolves across shots to indicate that there is a significant amount of missing narrative time between the two

shots” (Magliano & Zacks, 2011, p. 1491). The final shot of the film contains the exact spatial and temporal dimensions used to introduce the film, the only difference is that now the camera zooms out on the protagonist sitting alone on the park bench – this camera function generates a meaning how the protagonist is isolated and engulfed in his surroundings.

Another example is the aesthetically pleasing, non-narrative film *Koyaanisqatsi* (1982). This film begins with a close-up shot that zooms out to portray a hand-drawn image on a cave wall of shadowed figures standing next to a figure wearing a crown. *Koyaanisqatsi* –meaning “life out of balance” in the Hopi language– ends by showing a similar image from the beginning of the film while the camera zooms into the image of the shadowy figures which can be found in Canyonlands National Park, Utah. The compilation of visual shots in *Koyaanisqatsi* in addition to the musical score by Phillip Glass establishes a symbolic message to show how humans behave in their environment.

After the opening of the first shot, a fade transition is used to create an overlay of explosion from the combustion of a rocket engine while the cave paintings fade away as shadows that are engulfed in flames. Being that *Koyaanisqatsi* excludes a verbal narrative there is a heightened necessity for the visual components of this cinematic text to elucidate meaning throughout the visual montage accompanied by the extradiegetic music. The artistic use of the crossfade for this certain transition relates to Lotman’s statement that “an artistic text is a complex system built on the combination of general and local orderings on various levels. This has a direct impact on the structuring of the plot” (Lotman, 1977 [1971], p. 250).

David Lynch’s 1986 mystery thriller *Blue Velvet* uses the same spatial boundaries for the beginning and ending shots of the film. The difference between the two films mentioned above and with *Blue Velvet* is that the temporal dimension for the end is not the same as the beginning of the film. The film begins by portraying a picture-perfect day that ends up being potentially life-threatening for the protagonist’s father. The ending of the film depicts another picture-perfect day due to the unexpected fatal chain of events endured by the protagonist. Both the beginning and ending of the film use extradiegetic sound to play Bobby Vinton’s “Blue Velvet”, however,

the beginning scene uses the original song which is sung by Bobby Vinton and the ending scene uses a snippet of the song sung by the damsel in distress who was saved by the protagonist.

The syntactic relation of iconic images shown in the beginning scene of *Blue Velvet* does an excellent job reinforcing the artistic text throughout the story and concludes with a reformation at the ending scene on what the iconic images represent; most notably, the robin perched on the kitchen window seal with a beetle in its mouth reforms the symbolic meaning that the chaos which remains unseen to the human eye will not overcome personal aspirations. The montages within the beginning and closing scenes of *Blue Velvet* allow spectators to relive a picture-perfect day, however, there is one crucial distinction between the opening and closing scenes due to the visual depiction that orients the aforementioned “perfect day” and the familial bond. We can turn to Lotman’s description of coincidence and non-coincidence to gain a deeper insight on how this directly relates to the structuring of an artistic text, “when the element of likeness is heightened to such an extent that the textual parts absolutely coincide, the difference of the non-coinciding part-in this case the individual interpretation-is also heightened” (Lotman, 1977 [1971], p. 134). After the repeated shot of the roses in the garden, there is one last shot in slow-motion that is centered around the woman who was saved by the main protagonist of the story. This moment in the film depicts the reconnecting with her child that she was taken away from, and the cyclical movement of the propeller on the child’s hat, in slow-motion, while he runs towards his mother.

In 2002, the Estonian novel series of *Nimed marmortahvlil* written by Albert Kivikas (1936) was repurposed into a film titled *Nimed marmortahvlil* (*Names in Marble*) by the producer Kristian Taska (2002). The novel and film focus on a group of Estonian schoolboys who volunteered to fight in the Estonian War of Independence that took place in 1918-1920. The beginning scene for *Names in Marble* (2002) consists of three minutes showing the city of Tartu, Estonia bustling with movement of the locals. Then a group of Estonian teenagers sneak into city hall to swap out the German Empire flag for an Estonian flag and place a pebble in between gears to stop the clock located on top of the city hall building.

At the end of the film, the same close-up shot is used once again for a few seconds, only enough time to let the viewer see that someone removed the pebble that was placed there at the beginning of the movie. The cyclical narration of this film emphasizes that time stood still for the inhabitants who were occupied. The last scene of the film changes the focus on the character, the young schoolboy who is walking in the school and goes into the classroom where his friends came together to volunteer themselves in the War of Independence. This switching of character perspective right at the final moment after the repeated visual shot is similar as in *Blue Velvet*. Changing the character perspective in the last scene of *Names in Marble* showcases a generational shift from one protagonist to another, and the schoolboy walking into the school is surrounded in silence after the rest of the kids leave the school. The ending of the film depicts an experience that a new time has emerged, a time that inscribes the past.

The film *Tangerines* (2013) produced and written by Zaza Urushadze is a story about two Estonians living in a rural village in Abkhazia, Georgia during the 1992-1993 War in Abkhazia. The opening shot of the film shows wood being cut with a table saw in a shed. Majority of the movie focuses on the events that happen on the protagonist's farm and homestead. The ending shot of the film shows the protagonist cutting wood inside his shed, while the rest of his property is damaged and shows signs of repair is needed. The intertextuality of the opening shot of the film represents a state of repair, such as the protagonist revealing at the end of the movie that his son was killed when the war first began.

A more recent example of a film using a cyclical structure is *1917* (2019) directed by Sam Mendes. The film starts with two British soldiers set in World War I within a grassy field with one of them leaning against a tree, and the soldier that is standing is given orders to go see the general and is told to take the soldier resting against a tree to accompany him. The entire film is edited to appear as one continuous motivated shot, which emphasizes a linear process of receiving an order from the commanding officer and concludes once the mission is complete. Although from the spectator's perspective the film may be perceived as one continual shot, the camera work for *1917* utilizes scenes of motion to mask cuts which occur

during periods of high motion (Smith & Henderson, 2008; Magliano & Zacks, 2011)—e.g., falling down a waterfall into a river. Filmmakers apply a widely known technique of editing together camera shots known as continuity editing, which is intended for retaining an ongoing coherent narrative action. (Bordwell, 1985; Cutting, 2005; Bordwell & Thompson, 2006; Magliano & Zacks, 2011). The film's use of motivated shots emphasizes the soldiers' perceptual awareness of their surroundings, additionally, the continuously perceived one-shot establishes a pragmatic response that the viewer is a part of the adventure. The story of *1917* ends by showing only one of the soldiers—the one resting against the tree at the beginning—surviving the dangerous message relay and is shown sitting down to rest against a solemn tree at his new destination. This film as an example of cyclical structure utilizes the techniques of continuity editing for the story to appear as an unfolding linear act. However, the repeated visual sign of the same soldier at the beginning and ending of the film resting against a tree resembles the circular aspect of persevering through combat to attain a moment of idleness before the unpredictability of war emerges once again.

Conclusion

The conventional signs shown during the beginning of the film end up as a metonymy at the end of the film if the same textual elements are used, which means the shots and sequences throughout the film act as a montage that combine the two conventional shots for the viewer to create an interpretant of the story. When a film uses the same shot for the beginning and ending it generates a frame for intertextual meaning of what happened after the depicted ending; the intertextual meaning perceived by the spectator of a cyclical structured film offers a symbolic depth to the story, whether that's a past experience similar to, for example, what is depicted in *Love Story* or *1917*, the cyclical story concludes and returns back to a signified spatial and temporal dimension, which leaves the viewer to wonder what happens next to the protagonist after completing their epic adventure or coping with a tragic loss. Incorporating an intertextual frame allows the viewer to generate meaning based on the textual elements within their reality—as previously mentioned, experiencing the movie *Koyaanisqatsi*

portrays how humans have negatively affected our environment, the intertextual interpretant created after the last shot of the movie is to influence the viewer on how they will interact with their environment after experiencing the movie. Cyclical narration in traditional film allows viewers to reinterpret a visual shot in the opening act of a film when it is integrated within the closing act. A film's structure to contain repetitive visual shots evokes a meaning-making process through intertextuality, where the prior meaning of the shot evolves with the unfolding narrative that is experienced by the viewer. Consequently, the repeated visual shot at the end of film attains symbolic grounding through the cyclical process of re-experiencing what once was.

Regarding the cyclical structure of narration for visual media, the ouroboros on the screen emerges the grounds for the symbolic plane which transforms the spectator's interpretation process to not only focus on what explicit objects are shown in the visual shot, but to allow the spectator to predict the possibilities due to intertextuality of the cinematic text to construct symbolic meaning for what the film represented. To conclude this chapter, I will end with a message from my first semiotics professor, who often recounted a phrase his own professor used to tell him as a student: "It does not matter where you begin; all that matters is that you end where you began."

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AUTHORS

Massimo Roberto Beato

PhD in Philosophy, Science, Cognition, and Semiotics (University of Bologna) and a research fellow in Semiotics at the University of Turin, focusing on extended bodies, technological enhancement, experience and signification. His research interests are sociosemiotics of theatre, gestures and corporeality, semiotics of experience, immersive media and enactive technologies, and post-human studies. He is a member of the International Network for Cognition, Theatre and Performance (INCTP) investigating on the spectator's cognitive processes in immersive co-participatory theatre experiences. Currently, he is also a lecturer in History of Theatre and Performance at the University of Tuscia in Viterbo.

Alex Ma

Associate professor at Arizona State University and an adjunct associate professor at the Hong Kong University of Science and Technology. As a scholar-practitioner, his research interests lie at the intersection of art, technology, business, and critical studies of film and media.

Haoran Sun

Postgraduate student at Shanghai Jiao Tong University, focusing on semiotics, French literary theory, philosophy of language, and psychoanalysis.

Hong Chen

Holds an MFA in Arts Management from Shanghai Jiao Tong University, with research interests in aesthetics and art history, currently working in the cultural industry.

Gloria Ocampo-Ramírez

PhD in Arts from the Universidad de Antioquia. Associate Professor at the Faculty of Arts of the Universidad de Antioquia, coordinator of the Photography area and the research-creation group *Desenfocados*, and member of the research group *Hipertrópico: Convergencia entre Arte y Tecnología*, within the same faculty. Her research practice focuses on photography, semiotics, image theory, and photographic aesthetics. From an artistic standpoint, she explores the theme of memory and its entanglements with photographic imagery, personal archives, and hybrid, intervened, or expanded photography.

Damien Tomaselli

Creator and scholar specialising in multiple narrative forms, focusing on the intersection of space, time, and narrative across various media, including film, gaming, virtual reality. He is a research associate at the Visual Identities in Art and Design (VIAD) at the University of Johannesburg, as well as a fellow of the International Communicology Institute (ICI). His work bridges practice-based and academic research. He is currently an Assistant Professor at Beijing Normal-Hong Kong Baptist University (BNBU) focusing on film & new media.

Bianca Suárez-Puerta

PhD in Semiotics from the National University of Córdoba, a master's degree in Anthropology, and is an audiovisual producer. She has served as a professor and researcher at institutions such as the National University of Colombia and Pontificia Universidad Javeriana, and is an executive committee member of the International Association for Semiotic Studies. Her publications cover semiotics, educational innovation, media art, and Latin American visual culture. Her research interests include social memory, critical image analysis, audiovisual experiences, and social transformation through communicative design and interdisciplinarity.

Pablo Molina

Holds a PhD in literature for the Universidad Nacional de Córdoba (Argentina). He is a full professor at the Faculty of Languages and the Faculty of Philosophy and Humanities of the same University. As a researcher, between 2002 and 2015 he developed studies on semiotics and cultural rhetoric, together with Dr. Silvia Barei (UNC). Since 2014 he has been carrying out research on digital culture and video game criticism, game studies and performance studies, focusing on the relationship between party and game, together with Dr. Gustavo Blázquez (UNC-Conicet). In 2005 he was awarded the “Premio de la Academia Argentina de Letras” for his academic achievements.

Alec Kozicki

Fourth-year PhD student in the Department of Semiotics at the University of Tartu, and his dissertation examines the design of interoperable techno-living spaces. The research constructs a transdisciplinary approach that gives insight on how we, as creators and users, are living within technology, which allows a novel approach to model how perception and meaning-making acts are changing with the continual development of techno-living spaces. Beyond modelling techno-living spaces, Kozicki has written various publications on the role of texts. Additionally, he has created a semiotic walking tour of Tartu, Estonia, to bring semiotics into the urban environment.



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