Introduction to 'The Historicization of the Creative Child in Education'

Cat Martins

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THE TEAM

Cat Martins

Cat Martins (they/them) is a Professor of Arts Education at the Faculty of Fine Arts, University of Porto, Head of the Ph.D. in Arts Education, and a Researcher at the i2ADS – Research Institute in Art, Design and Society. Coordinator of LABEA (Laboratory of Research in Arts Education). Cat holds a degree in Fine Arts – Painting, a Master in Arts Education and a Ph.D. in Education. Their work is focused on the history of the present of arts education and, currently, develops research about the historicization of the idea of creativity and childhood, from the end of the 18th century until the present, through a governmentality and decolonial approach.

Catarina Almeida

Catarina Almeida, 1985. Graduated in Fine Arts – Painting, in the Faculty of Fine Arts of the University of Porto (FBAUP) (2008), Master in Visual Arts Teaching (2011) and PhD in Arts Education (2015), in the same University. Professor at FBAUP since 2015, in the areas of arts education and methodologies and research in art. As an integrated researcher of i2ADS – Research Institute in Art, Design and Society, she collaborates in projects related to photo- and videographic documentation of artistic residencies as artistic research; projects dealing with the pedagogical materialities and history of artistic education in Portugal; training of visual arts teachers; the historicization of creativity and the creative child. She is interested in

the knowledge, collection and activation of mediation devices in arts education, and in the way they relate the pedagogical field to that of artistic practices.

Pedro Ferreira

Pedro Daniel Ferreira is an Assistant Professor at the Faculty of Psychology and Education Sciences, University of Porto and a member of CIIE - Centre for Research and Intervention in Education. He holds a PhD in Psychology and his main research focus is the political participation and the political development of young people and adults. More recently, he is particularly interested in researching how digital contexts, digital technologies and digital media contribute to political subjectivation and political education. He has been a member of various national and international projects and he has coordinated national and international projects on these topics (JoSeES - 'Serious Games in Higher Education: Impacts, Experiences and Potential' (2016-2019, FCT), DISK - Digital Immigrants Survival Kit (2019-2022, ERASMUS+). He is a member of the Portuguese Society of Education Sciences (SPCE).

Tiago Assis

Tiago Assis graduated in Communication Design at Porto in the ESAD School of Arts and Design, has a Master's degree in Multimedia Production from the University of Barcelona, and a PhD from the Polytechnic University of Valencia. After various professional roles as designer, he taught at the Soares dos Reis Artistic School from 2001

until 2007. He has been teaching and researching at the University of Porto's Faculty of Fine Arts since 2008. He does research on Arts Education at the level of power, culture, identity, technology and language through decolonial frameworks.

Melina Scheuermann

Scholarship holder
Melina Scheuermann (she/her) is a PhD candidate in Arts Education at the Faculty of Fine Arts and the Faculty of Psychology and Educational Sciences at the University of Porto. She holds a Master's degree in Cinema Studies from Stockholm University, Sweden, and a Bachelor degree in Cultural Studies (Major) and Arts-Media-Aesthetic Education (Minor) from the University of Bremen, Germany. Melina Scheuermann's artistic as well as research interests evolve around arts education, history of education, visual discourses, ecology as well as postcolonial, post-structural and feminist theory. Her profile is rounded off by diverse professional experiences in arts education, political education, social work and documentary film production.

Raquel Boavista

Scholarship holder
Raquel Boavista, 1989. Master in Image Design (2016-18) and a First Level Degree in Communication Design (2008-12), both from the Faculty of Fine Arts of the University of Porto. Completed high school at Escola Artística Soares dos Reis (2004-07), in the course of Communication Design, with specialization in Graphic Design. She is a graphic designer, with emphasis on editorial design, on a freelance

basis. She is currently in her second year of the Master in Teaching of Visual Arts for Teachers of the 3rd cycle of Basic Education and of Secondary Education (FBAUP/FPCEUP), in an internship at Escola Artística Profissional Árvore, in the specific area of Design and Graphic Production. She likes writing more than drawing and has always felt on the "wrong" side of the arts because of this. She "suffers" from a certain impetus for making and a difficulty in idle.

Pedro Evangelho

Graphic designer from Terceira island, Azores. Graduated in Communication Design at Faculty of Fine Arts of the University of Porto. He likes illustration, comics and editorial design.

Gustavo Magalhães

Gustavo Magalhães, 1999. Having earned a Master's degree in Informatics and Computing Engineering from the Faculty of Engineering of the University of Porto, is a Software Engineer. Currently employed as a Full Stack developer, he specialises in the development of web and mobile projects, proficiently utilising technologies such as Ruby on Rails, React, and React Native on a daily basis. His professional focus lies within the realm of FrontEnd development, with a strong passion for enhancing and designing exceptional UI/UX experiences. He is deeply committed to staying up-to-date with the latest advancements in computing technologies, constantly seeking opportunities to refine his skills and contribute to innovative solutions in the field.

The Historicization of the Creative Child in Education

EXTERNAL CONSULTANTS

Jorge Ramos do Ó

Jorge Ramos do Ó. Full Professor at the University of Lisbon, Institute of Education, and guest Professor at the University of São Paulo-Brazil and State University of Rio de Janeiro, in Brazil, where he has mainly taught in the areas of history of education, cultural history, discourse theory and, most recently, higher education pedagogy. His writings have included studies in political and cultural history, with particular emphasis given to the Estado Novo period in Portugal (1933-1974), as well as history of Portuguese education and pedagogy, analyzed over a broader time span (19th-20th centuries). He has published 17 books, the most recent of which is entitled *Train the hand: Towards an inventive writing in university.*

Thomas S. Popkewitz

Thomas S. Popkewitz is a Professor in the Department of Curriculum and Instruction,The University of Wisconsin-Madison, USA. His studies are concerned with how "we" reason about educational policy, curriculum, teacher education, and research as a problem of the politics of knowledge. A central theme is how pedagogy, curriculum, and research practices are historically concerned with making kinds of people and distributing differences. The research entails a range of theoretical, discursive, ethno-graphic, historical, and methodological analyses. Recent investigations have focused on the infrastructures of the

social and psychological sciences related to education as paradoxical, reinscribing principles of inequality as the standards of equality and change.

INVITED AUTHORS

Amanda Midori

Visual artist, art educator and researcher. PhD student in Art Education at the Faculty of Fine Arts of the University of Porto (PT). Master in Art and Design for the Public Space by the Faculty of Fine Arts of the University of Porto (PT). Specialised in Inclusive Education by Faculdades Metropolitanas Unidas, São Paulo (BR). Bachelor and Licentiate in Visual Arts by the Institute of Arts of the Universidade Estadual Paulista Júlio de Mesquita Filho (BR). She is currently a PhD Fellow at FCT and an integrated non-doctoral researcher at i2ADS/FBAUP.

Samuel Guimarães

Samuel Guimarães works in art education since 1993. Main interests: questioning art education practices in its ontological colonial status; independent ways of publishing research beyond academia. He collaborates with Theatre BA and MA of Performing Arts School of Porto Polytechnics since 2003 and was invited by Cat S. Martins to teach at Art Education PhD of Fine Arts College at Porto (2020-2023). Full Researcher at i2ads fbaup (oct22-july23). He Works at Douro Museum Education dep. since 2006 and runs art education seminars and workshops for organisations of the cultural and educational sector since he

was responsible for the arts and pedagogy seminars at European Studies Institute of Macau, China (1999-2001).

<div align="right">Ademar Aguiar</div>

Ademar Aguiar is an Associate Professor at Faculty of Engineering of University of Porto (FEUP), being responsible for several course units related with Software Engineering. He is also researcher at INESC TEC, where he coordinates the HumanISE research center. He does several other activities related with software, from research, training and consulting, to ideation, coding, and venture development. After more than 30 years of programming, Ademar found special interest on architecture, design and implementation of complex software systems, applying Agile methods (XP, Scrum), wikis and open collaboration tools, to better communicate and preserve the necessary software knowledge. Ademar is co-author of "A Scrum Book - the Spirit of the Game" (2019). He often organizes scientific conferences, and recently was the General Chair of XP 2018, General Chair for <Programming> 2020, Research Workshops co-Chair for XP 2021, and General Chair of <Programming> 2022.

This publication results from the research done in the last year and a half in the scope of the Exploratory Project *The Historicization of the Creative Child in Education* (CREAT_ ED), funded by the Portuguese Science Foundation. The project aimed to understand, historically, how the idea of the child as a creative being became a problem in education and arts education.

CREAT_ED started from the work we have been developing as a critique of how creativity is instrumentalized within the current Portuguese educational field, mirroring international directives. This work (Assis, 2017, 2019; Martins, 2014, 2020b, 2020a) allowed us to perceive that some complex lines make this 'present' possible and that they needed to be historicized (Popkewitz, 2013) from the end of the 18th century to the Post World War II, from a time when imagination and creativity occupied an ambiguous place within the educational discourses, to their commodification and homogenization.

Throughout the project, we look at the creative child as an 'event', in order to not take for granted creativity as an essentialist concept. Following a Foucaultian perspective (Foucault, 1972, 1980), the omnipresent question was: How is it possible to think about the child as a creative person, and what are the effects produced in the making of the creative child? Historically, developing the child's creativity was not always seen as an educational goal. When it turned into an educational problem, the notion of creativity varied in terms of its purposes, practices, and meanings. As an 'event' the creative child is also an archive of thoughts and rationalities of times and spaces. The different layers that made up the child, creativity,

and the child as a creative being, tend to be forgotten as 'ingredients' with specific properties (Martins & Popkewitz, 2015). What remains is the idea: childhood is the space and time for creativity.

However, even if different notions of who the child was, who the child should become, and how the child learned changed throughout history, the context needed to unleash the child's creative nature, or to tame that potential, has been conceived as the field of arts education.

A history of the present of arts education aims at a critical engagement with the present. In the present, creativity appears wrapped in a positivity that makes difficult to scrutinize the different layers that constitute it as a technology of government and as a way of being a person (Martins, 2023). Creativity is not just a word. It is an actor in the world (Hacking, 2006). The invention of the creative child made possible the Western arts education movement and the epistemological construction of the field at an international level. At the same time, it made possible a certain kind of human, that is the child that is seen as *naturally* creative.

CREAT_ED tried to examine the ideas and pedagogical practices that circulated among American and European arts educational discourses and psycho-educational texts about the development of the creative nature of the child as an object of study, intervention, and development, and how ruptures and continuities were enhanced. The project focused on the rationalities inherent to this 'making' and their strategies, such as the comparative reasoning and the processes of 'Othering' it entailed.

In considering creativity as a historical event that needed

to be dismantled in its different complexities, CREAT_ED aimed to relate to the idea of change, not in terms of providing solutions, recipes or a good view of creativity in education, but trying to intersect the historicity of the articulation of the two constructs: the child and creativity (or imagination, when we refer to the 19th century).

A timeframe was established for the research. The history would start in Geneve, with the publication of Rousseau's Emile (1762), and arrive in Portugal with an OECD seminar (1973), still during the regime of dictatorship, about creativity in schools. It would travel through Europe and the United States during this time. We compromised to provide a systematic collection about the invention of the creative child from 1762 to 1973 through an online timeline, which would contain materials (texts and images) representative of this construction.

In 2019, before this project and as an antechamber of it, me and Carmen Mörsch initiated a preliminary intensive work, composing a wall timeline of international historical references of arts education discursivities. Although these references were not put together only with the 'creative child' in mind, they constituted the first steps of the archive we built at CREAT_ED. The archive is made of documents never meant to be recalled because of their ways of talking about imagination or the relationship between their authors. The documents are placed together, and form an archive through their grids of rationality, in making intelligible the idea of children's power to imagine and create. The Foucaultian (1972) notion of the archive was mobilized as a theoretical and methodological tool that favored a vision of the archive as the understanding

of the historical conditions in which statements are formed. The term archive was not used as the sum of texts that a certain culture decided to preserve, neither the totality of texts produced about a certain topic, nor all the texts produced by a specific author or institution in a particular place. But certainly, the archive is always in a dialogue with power.

Archives are not neutral places to access 'the' past. The archive moves and changes according to the paths and the holes we open to enter them. We established four research lines that organized how we tried to make sense of the materials we were dealing with. These lines were initially established 'intuitively' because of the work we have been doing in the past, concerning the history of arts education in countries like Portugal (Martins, 2012, 2018, 2019; Ó et al., 2013). These are the lines we established:

1. The hopes and fears of creativity in education;
2. The child as a creative being within the child art movement and the fabrication of the 'Other';
3. The spaces and materialities in the making of the creative child;
4. The conceptualization of the mind as both program-med and creative, from the essentialism of calculation to the cybernetic discourse in the programming of creativity in education.

During our research and the construction of 'the archive of the creative child', we started to perceive that the child that we were encountering as a universal was a very particular kind of child: a 'white', male, heterosexual (or

non-sexual), non-disabled, middle-class child. Indeed, the child that had the 'white' European man as their model of futurity as a citizen of the nation. The notion of whiteness became a category that we started to deal with and that we tried to mobilize in the analysis. In making the 'white' creative child, several violent and exclusionary practices were at play and are still part of the colonialities (Quijano, 1992) that constitute the 'nature' of the Western field of arts education.

We also look at these exclusions in how we dealt with history. The 'archive of the creative child' that we ended up with, is made up of mostly male and 'white' voices. Our initial goal was to understand what was being said about the child and creativity that made it a concern for the child's government. However, throughout the project and the encounters with these voices, the subject positions emerged as a problem that we must consider in future research. As much as this archive delineates what was called a 'knowledge' about the child that imagines and creates, it also traces the limits of what is thinkable and can be said, through what is rendered out of our sight. There were many questions that we asked and were asked that we were not yet able to answer. This problem comes with the need to engage with arts education counter-narratives and stories of resistance.[1]

The creative child's archive was thought to be an online archive and timeline that could stay as a research tool after the end of the project. As we explain in the text following this introduction, we established two challenges: on the one side, to create a back-office which is a research tool to be used by researchers interested in continuing the

analysis of the materials collected and others to come; on the other side, a public interface of the histories and the work we did in this year and a half, which is also the result of the questions and reflection we did around the notion of timeline and its representations. In Tiago Assis, Cat Martins, Raquel Boavista, Gustavo Magalhães and Ademar Aguiar's text *The Construction Of The CREAT_ED Online Platform: Archiving, Unarchiving, And Interpolating In A Timeline*, the construction of this platform is presented, trying to stress how the problems of research intersected with the more 'pragmatical' levels of its construction and the desire to create a timeline that could be 'scattered'.

Cat Martins' text *Learning Through the Senses: Colonialities in the Making of the Western 'White' Child* discusses children's learning through the senses as part of the colonialities of arts education practices. Being possible through the split of body/mind and the approach to a certain notion of [[nature]], the child was constructed through processes of 'Othering'. The text also tries to unpack this making of the 'white' child while exploring its colonialities in the [[gardening practices of education]].

Melina's Scheuermann text *(Un-)Learning to see: Images of Whiteness and 'Nature' in the picture book series A instrucção de creança (1904/05)* aims to relate to this book with some questions in mind: What do the images in the book do, what relations do they allow for, and who are the subjects being produced through these images and acts of seeing? Whiteness appears as the grid of rationality that gave rise to the book and the images themselves while it reproduces whiteness. This book was a 'traveling' book that also presented traveling concepts that constructed

the western 'white' creative child, mainly a specific idea of nature and learning through object lessons as the most appropriate way of [[child development]].

Also touching on the materialities of children's education, Catarina Almeida, Samuel Guimarães, Amanda Midori, and Raquel Boavista's text *Games in hands, questions in mind: In the flesh of the impossibility of About what's there* is a text about an encounter with the archives of the creative child in the present with the worry of re-activation and use of some its materials in arts education. They selected propositions from Elvira Leite, a Portuguese art educator, Bruno Munari, an Italian art educator, Friedrich Froebel, a German pedagogue, and the German art school Bauhaus. These propositions were experimented with in the context of a curricular unit of the Master's in Visual Arts Teaching, and the text reflects on the desires, seductions, questioning, refusals, contradictions, ambiguities, and so on, present when dealing with the archive and the history of our present.

Tiago Assis and Pedro Ferreira's text on the *Child's Mind and Creativity Machines* dialogues with the conceptualization of the mind by the end of the 18th century and around Post World War II. Starting from how the study of the child's mind was the path to the study of the adult's mind, and thus, part of the governmental goal to transform the child into the nation's citizen, the text articulates the field of education and technology. In this articulation the notions of nature and science are mobilized in the ways children are produced as naturally creative; however, what is meant by creativity is being controlled and governed through the web of discourses of psychology

2 The concepts presented in the vocabulary are used throughout the book in [[double brackets]].

and education, as well as the spaces and materialities designed as creative, including machines and computers. Cat Martins' text *The Historical Ambiguities Surrounding Imagination: The Government Of The Hopes And Fears Of The Child's Imaginative Mind* argues that, historically, children's power to imagine beyond reality was perceived as dangerous within the Western educational field, particularly echoing some earlier traces of imagination in connection to a female monstrosity and to madness and the need to construct borders between different types of imagination, defining the morals of how to imagine correctly, as a way of governing the creative child. Sometimes welcomed and desired, sometimes feared for the troubles it might cause to the production of the child as a citizen of the future; throughout the text it is possible to observe that the imaginative child praised in Western education was entangled with racial, gender, and ableist grids of thought.

All these texts were presented in the Final Seminar of CREAT_ED and submitted to the gaze of our critical friends and participants. Many questions and problems were raised, and as much as they left crucial questions that the final edition still did not solve, they also left in the team the will to continue this research, knowing that it is important to recognize that we just started to unpack how whiteness and the arts education field were/are very closely articulated.

The team's texts are followed by a vocabulary/archive. While the vocabulary aims to situate some of the concepts we are mobilizing in our research.**2**, the archive material inserted in this booklet tries to introduce some of these

historical objects, reading them through our worries in the project. We did not intend to contextualize the materials by markers such as author, place, year, 'school of thought' or theories developed; instead, we intended to intersect those materials with the questioning we are making and leave them to dialogue and resonate with the readers—more an invitation to work through, than information to know about. Some of these archival materials contain racist and violent language that can trigger unpleasant feelings in the readers. Some of these materials are also used in the writing of the texts. We tried to use them carefully in order not to reproduce, once again, the matrix of violence they contain. However, we are aware that to work with such problematic historical materials is a difficult and challenging task that makes necessary a continuous learning.

As a history of the present, this historicizing is not neutral. Our initial steps started from a Foucaultian framework, and we chose to accompany us in this path two scientific consultants, which are international recognized experts in the field, Thomas S. Popkewitz and Jorge Ramos do Ó. However, our (re)search and encounter with the decolonial studies and the field of critical whiteness opened for the team a space of displacement and going beyond the initial framework. We are grateful for the questions the two consultants put to our research in a seminar that was held in December 2022, and that were the result of tensions that the postcolonial and critical whiteness that we were bringing to the table put to a Foucaultian framing. The two texts that both Jorge and Thomas prepared in the seminar's scope are part of this publication, as external

gazes that intersect the project, and it is important to acknowledge both the points of contact and dialogue as the *dissensus*.

Our great challenge in CREAT_ED was to articulate the 'archive of the creative child' based on the four lines of research, confronting ourselves, for the first time, with the whiteness of our field. We initiated a path that has no return, and we acknowledge the long journey yet to come. We had the great privilege of having on our side incredible people as critical friends and participants in the several events we organized in the last year and a half. Our special thanks go to our critical friends Carmen Mörsch, Simon Nagy, Carine Zaayman, and Lineo Segoete; to our students, and all the seminar and workshop participants. To say thank you will never be enough to express our gratitude for all the learnings with you!

To finish this introduction, we want to say that printing these texts marks the end of this Exploratory Project and obeys to its funding rules. However, constructing this 'archive of the creative child' and producing knowledge that takes seriously the implications and the colonial continuities of arts education through figurations, such as the creative child, deserves another time, attention, and a process of transformation of/from each of us. We hope that the readers can find in these texts, in their approximations, in their distinctions, in their contradictions, in their failures, in their potentialities, in their gaps, in their fragmentation, in their questions, spaces for (re)thinking again what do we mean when we refer to the creative child, what did we inherit from this historical construct and what do we want to do with those inheritances.

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The Construction Of The CREAT_ED Online Platform: Archiving, Unarchiving, and Interpolating in a Timeline

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This text intends to introduce the research project CREAT_ED: The Historicization of the Creative Child in Education, focusing on its online archive platform. The process of construction of this online archive platform allows us to problematize how a particular theoretical framework cannot be separated from the methodological and 'practical' problems and answers concerning the research tools we need in the project. With the CREAT_ED project, we intend to understand how, historically, the idea of the child as a creative subject was produced within modern Western discursivities about the child and creativity. We start from a post-structuralist and decolonial theoretical framework in order to understand how this child was - and still is - the result of colonialities and of power and knowledge. As a research tool - and not only as an output of the project - we built an online archive platform where we host the 'archive of the creative child'. This archive has two dimensions: a back office which is a tool for researchers interested in dealing with these materials, and a public interface as a timeline, concluded by the end of the CREAT_ED's Exploratory Project. The text was written by multiple hands and brings to light the problems at the intersection of our different fields: arts education, design and computer engineering

Introduction

CREAT_ED started from a critical work on the mobilization of the concept of [[creativity]] in the Portuguese educational context as part of a more extensive and

international mobilization of the concept (Assis, 2017, 2019; Martins, 2014, 2020b). From that work, we felt the need to historicize the idea of the creative child, trying to understand how the creative child as a kind of person (Hacking, 2006; Martins, 2020a) became possible and reasonable in the present. We try to make a [[history of the present]] (Foucault, 1980; Popkewitz, 2013) around the construction of the child as a creative being. A history of the present is meant to understand the different layers that historically made up the creative child and that are still part of our ways of reasoning today.

The project attempts to analyze and unpack the ways through which this child was fictionalized as imaginative or creative within educational discourses from the end of the 18th century to the post-World War II period, mainly produced and published in Europe and the United States. This child was, and still is, a repository for hopes and fears (Martins, 2021; Popkewitz, 2008) [[see in this volume Cat Martins' text The Historical Ambiguities Surrounding Imagination]], being at the intersection of different projects and meanings that are sometimes contradictory. The ways of thinking about children's imaginative life, and the progressive loss of those abilities, are part of the normativity through which the child, as an idea and an object of intervention, care, and education, is positioned. The creative child was constructed within a binary and universal rationality. She was different from the adult, but at the same time she represented and enacted the past history of humanity; she was compared to the [['primitive']], yet she was being submitted to civilizational practices; she was naturally imaginative, immature, and innocent, but

on her way to achieving reason. These ideas were used to legitimize the governing of the child, transforming her into a citizen of the nation [[see child's development; recapitulation theories; innocence]].

From our standpoint, it is not possible to think about a methodological framework for research that is not part of the theoretical ways through which a problem is being constructed and understood. The term 'research' in itself, as pointed out by Linda Smith (2012), is a term that cannot be separated from its links with European imperialism and colonialism. In other words, as Smith emphasizes, "research is not an innocent or distant academic exercise but an activity that has something at stake, and that occurs in a set of political and social conditions" (Smith, 2012, p. 5). As such, there is no 'neutral' methodology; nor is research a way of telling the truth about the objects under its scrutiny.

The issue becomes even more complex when dealing with historical research; the idea of Western history as 'universal' and as a linear and truthful way of interpreting historical sources and narrating 'what happened' is very much ingrained in positivist notions of history. We prefer the term 'historicize' to 'historicism' '(Popkewitz, 2013). To historicize implies the analysis of how a particular object turned into an object and subject of knowledge. In this case, the question is: how was the creative child constructed and acted upon according to power-knowledge relations (Foucault, 1995)? From here result two main questions that guide our discussions, impacting the construction of the online archive platform: how is the notion of the creative child being constructed, and what are its effects on our

1 The materials that were firstly inserted into this platform and the idea of visualizing them in a timeline, was the result of a work developed in 2019 by Cat Martins and Carmen Mörsch. A first version of this back office was prior to the CREAT_ED project, and resulted from discussions among Carmen Mörsch, Cat Martins and Tiago Assis.

current practices as art educators? What within this idea gave it reasonability and unquestioning acceptance? These were the starting points at the crossing of historical research on arts education and the construction (design and programming) of an online platform (both a back office and the representation of the historical materialities in a timeline). The online archive platform was not intended as a repository of materials; rather, it was considered an experimental archive that deals with the need for multiple forms of data processing. These are not restricted to indexing, and they require new forms of manipulation, intersection, visualization and representation. The research and processing of data thus become a space for criticism, speculation, experimentation and research of digital platforms in various aspects, from the infrastructure to the design of interfaces.

In this context, the team of researchers started **1** building the platform by means of a participatory approach. A back office was established as the first objective, to include a series of references (texts, images, videos) that could be filtered, crossed and mapped into different categories and tags. The categorization criteria were discussed in regular meetings during project development. As a second objective, the chronological mapping of these data into a timeline was intended for the appropriate readability of the amount of data we work with. At this point, we faced one of the main problems of this platform. While it was crucial to have the chronological positioning of materials, the idea of a 'timeline' is historically part of forms of imperialistic representation that tell the story of the dominant (Azoulay, 2019). Our 'archive of the creative child'

was also part of the 'dominant' narrative of Western arts education. The ways of critically approaching the archive became our main preoccupation. We could not separate the thinking of the archive from the ways of dealing with the materials it contained, of changing their place, and try out new dispositions. As a project that starts to deal with anti-colonial lens, it became necessary to develop other forms of conversion, mapping, and visualization of information that allowed different types of interaction and experience for the researchers in terms of insertion, manipulation, and visualization of data. Therefore, we also developed an exploded timeline representation that makes it possible to work with removable content and graph relations displays. This paper focuses on the building of the archival platform, inseparable from the ways of archiving and unarchiving. While the archival gesture is connected to the selection of materials that are uploaded to the platform, the unarchival gesture is meant as the unlearning of archival rules and powers. We enhance this practice as an action of [[interpolation]].

With more questions than answers, we started

The concept of the creative child as a historically cons-tructed concept became the space around which an archive was emerging and, simultaneously, was percei-ved through the analysis of the power-knowledge rela-tions and [[colonialities]] that make up that concept. The theoretical-methodological notion of a history of the present structures the construction of this archive, the

materials selected to be entered into the archive, and the ways through which they are articulated and become the object of questioning.

The construction of this platform could not be separated from the research problem. It could not be a mere database that gathered large amounts of information. The non-neutrality of any research tool makes it evident that any gathering of materials creates them as data and necessarily distributes them in visible forms with specific forces and orders. The platform had to assume the possibility of different historical representations and ways of representing. In other words, since the platform activates the violence we intended to research, its contradictions must be questioned.

For the curatorship of the materials, we established, as a first goal, setting up a back office to include references (texts, images, videos) that could be filtered, crossed and mapped. These materials - now seen as data - could then be chronologically represented on a timeline.

The idea of a timeline posed some questions. As Ariella Azoulay stresses, timelines "consist of milestones in the form of wars, conquests, revolutions, constitutions, laws, establishments, institutions, foundations, and inventions, initiated and imposed by imperial powers" (Azoulay, 2019, p. 167). Because it is a model used as a traditional way of representing imperial history, which activates the violence of the history of the dominant, we had to question this technological device. We tried out other forms of conversion, mapping, and visualization of the information that could allow for alternative forms of interaction and experience for the researchers. We had

some references in mind: the most important were *Al Hurwitz's Art Education* platform; *Another Road Map School's Un/Chrono/Logical Timeline* project; *For a Timeline To Be, genealogies of dance as an art practice in Portugal*; and *Four Hundred Years*, which, in terms of the interface, became a crucial reference.

1. When the problems disturb the results

The initial representation of the timeline was the subject of discussion in the context of a first meeting with critical friends in March 2022. Some problems were central in the debate: ways of archiving and unarchiving, interpolation and unlearning of the rules and powers of the archive.
As we stated before, we do not look to this archive and platform as a repository of materials that explain, throughout time, what a creative child is. The creative child emerges as an object of thought through these discursive materialities, relations of power and knowledge, that make possible ways of seeing and saying children as creative. To work with these materials implies working with them and against them (Stoler, 2002).
The creative child emerges as an [[event]] that we problematize in its current naturalizations. We try to understand the rules and structures that gave rise to this kind of subject. The decolonial intentions of the project led us to new readings and critical possibilities that were not as present in the beginning and which provoked an epistemological displacement of ourselves. From a Foucauldian framework, mainly through the idea of a history of the

present and of [[governmentality]], we approached the colonial dimensions of the creative child as a Western idea. The place of speech became one of the main problems for each phase and for the work within the project. We try not to forget the positions and places from which we speak, the places that we are occupying when we do so, and the 'white' and colonial histories that we inherit and make us who we are.

Thus, the construction of the platform started within a critical context of reparation. By this we mean work that tries to undo - by breaking, disrupting, and stopping - the universal narratives and histories about the creative child in arts education practices. In our work it is about searching for the unquestioned constructed narratives immersed in an acritical and privileged [[whiteness]] that used the 'Other' (and the child as the 'Other') as a mirror for the production, and as the possibility of differentiation, of a Western, adult, male, European, civilized self.

Readings and discussions of authors such as Saidyia Hartman, Toni Morrison, Gayatri Spivak, Anibal Quijano, Ariella Azoulay, Linda Smith, among others, challenged us to learn about our whiteness and the whiteness and Eurocentric perspectives that inform the field of arts education practices. To start reading these authors and to mobilize them in our research is not without its problems. We tried to be careful and pay attention to the ways we were mobilizing the authors, so as not to reactivate forms of extractivism. We created a discussion and reading group with students and researchers that aims to think about the colonialities of arts education and work towards anti-dis-criminatory practices. The challenges, contradictions and

ambiguities that we faced in these discussions impacted the project, the discussions concerning the online archive platform, and the different possibilities of a timeline representation.

Acknowledging that we are starting with a form that is not neutral, our thinking goes to the different possibilities of deactivating the violence of the regime we are using. As such, the problematization evolved around two main axes:

i) The manipulation of the timeline against its linear and chronological determinism, interpolating and juxtaposing different materials at different times;
ii) The search for other forms of representation and distribution of the historical materialities, i.e., not following a linear, chronological mechanism.

These gestures are conditioned by our positioning and the problems we raise regarding the violence of the archive. How does one not activate and reproduce the violence of the archive? What and how does one show some of the materials? How and who can show them?

In short, we are confronted with the limits of the archive, with its positivity. Our work tries to challenge this with the possibility of histories that do not celebrate those archives but argue against their violence, erasures, gaps and silences. For that, we need to unlearn the rules of the archive and its forms of power and violence. These questions reverberate in the ways we re-present these materialities. We are working through the concept of interpolation as the possibility of interference with historical materials in ways that may make other stories emerge.

Despite the problems and disturbances that we have been exposing, there are several layers, particularly in technological web platforms, that go against our intentions of a decolonial perspective. Acknowledging this does not mean that we do not use these tools, for we are subjected to their structures. However, the fact that we know and assume these contradictions as part of a possibility of disrupting from within makes us work in these ambiguities. These ambiguities are part of the arts education field in very different contexts (Mörsch, 2015, p. 20). In the text that follows, we expose some of them. The platform has a three-level hierarchical structure. If administrators have full access, editors can edit their entries, and basic users can only view published information. We have two types of data: bibliographic and events. Bibliographic data works like a bibliography manager in which we edit the reference fields similarly to Mendeley or Endnote; events are the main data we want to organize in different ways of visualization and representation.

Each entry has the following fields: title; body; tags; categories; date; bibliographic reference; image; link; annotations. The content is filled in in the "body" and can be linked to images and a bibliography inserted in the platform. External links can also be included, and the "annotations" field is used to insert internal notes for the team. In the "body," we can edit in HTML, which allows us to embed other types of web content, such as videos. Once edited, the content can be commented on by users registered in the back office.

The representation in a timeline format requires the event, start and end dates (the end is optional), which determine its chronological position. "Categories" allow for more static tagging, and "tags" allow for more dynamic tagging. We started to work with eight categories:

- "Creativity," which concerns everything related to CREAT_ED and was designed so that other projects could use this same database;
- we have four categories that are equivalent to the four zones of the project;
- a category relating to the kick-off seminar;
- "Readings of the archive" refers to the material produced by the team about the archive, from entries to project publications;
- the last category, "Interpolations," includes a series of productions we are developing with the materials and whose concept we will explain later. Archival readings and interpolations are always intersected by questions about what it means to work historically with sources and archives and, at the same time, how we can be aware of the power relations and colonialities constituted by/in those archives.

"Tags" contain contextual information that can include places, authors, institutions, etc. Periodic meetings should ensure there is a discussion on tag criteria to avoid redundancies and inappropriate terms. Categories, tags, and dates allow filtering and positioning in our representations. The back office itself has a conventional basic timeline for previews.
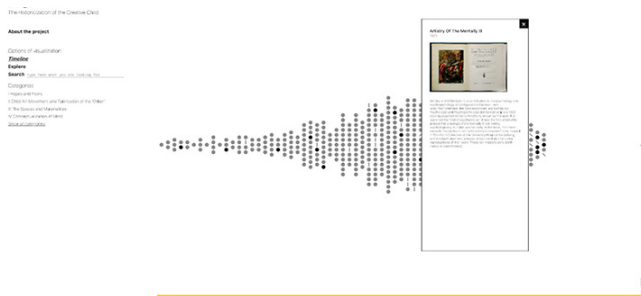
<u>image 1</u> Timeline in histogram format
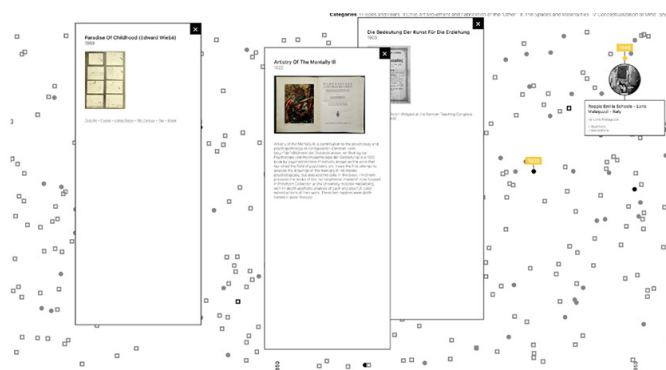
<u>image 2</u> Exploded view
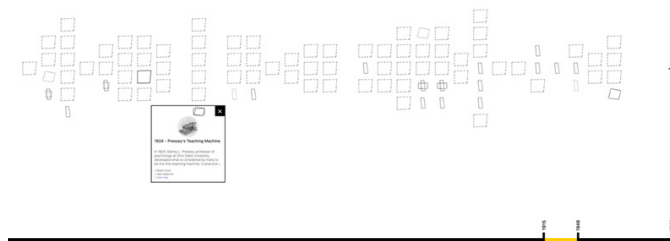
<u>image 3</u> Final version of the timeline

As mentioned, representation in timeline format is problematic in a project that is assumed to be anti-colonial. Two significant challenges were set initially:
i) the search for a timeline with adequate readability for the amount of data we work with;
ii) an exploded timeline representation that would allow removable content to work on.
In addition, representations in graph form were sought from individually selected items. Metaphors that would prove inadequate were problematized, for example, the representation of the section of a tree through its rings. If one of the criticisms of the project itself is the Western [[gardening practices of education]] (Martins, 2022), it would not make sense to activate this metaphor.
We were particularly interested in a certain minimalism that would not compromise a certain unreflected visibility. Although this emphasized a Cartesianism already present in the idea of a timeline, the representation in a histogram format gave us an interesting instrument for thinking about new dispositions. We thus developed a view of a timeline in a histogram format with the possibility of defining the timeframe for viewing the events.
We started by using basic shapes that represented each category, and that could be juxtaposed. We reduced some of these shapes to small line segments to better visualize the juxtaposition.
The fundamental concept that crossed the discussion with the manipulation of materials in a more concrete way was therefore the idea of interpolation. This idea

of interpolation struggles against a notion of automatic interpolation in which spaces are calculated and filled. The second view of the timeline that we developed - in which we continue to define the timeframe for viewing events - represents the materials in an exploded and random way. As such, we can enhance the gesture of interpolation.

3.1 Interpolation

We understand interpolation to be a gesture of interruption, intersection, or juxtaposition of times and places. By means of interpolation, we approximate events that were not close to each other. We try to activate relations that an imperial history made distant, invisible, and untouchable. Interpolation can be historical, cartographic, archival, or narrative. It is about how an intrusion arranges what we interfere with and how this interference make us intruders. The interruptions and disturbances we try to act upon within the archive also affect our subjectivities. Like the historical materials, we are also in the process of displacement and breakage. In terms of the actions in the project, it is about the possibility of introducing a breach, of opening up a space (without necessarily having to fill it). Concerning our subjectivities as 'white' art educators and researchers, it is about learning our privileged positioning and being active in the possibilities of reparation and restitution, resisting an apparatus whose exit we try to find.

We interpolate in a timeline, in a program, in writing and in a vocabulary, and we try to assume the consequences of the new arrangement. The interference, the opening

- empty or not - questions the order of the linearity and categorization. It also enables disorders, misreadings, sabotages, fabulations, and other gestures to come.

3.2 Front or Back: Moving in-between

During the development of the front office, the 'pure' and basic forms became increasingly problematic, mainly because of their drive to make things seem 'clean' and of 'good taste'. With a group of computer engineering students and a design student, we looked for new formal relationships, such as the concept of interpolation. We started by using segments and saturated colors that formed a kind of asterisk at the intersection of categories. We also looked for georeferential representations, a work still in process. These experiences referred us to characteristic and common elements in schools, authors, and discourses we seek to criticize. It was yet another situation of how we are trapped in the matrix of power and hegemonic discourses.

Confronted with this conflict and with a desire to get closer to the graphic productions of the project itself, we get rid of geometrical forms in favor of timeline post-its. At this project stage, we reached a final form with discomforts that will continue and are part of the way to go. We spoke specifically about formal and chromatic minimalism and the contents, structures, representations, and visualizations that belong to this matrix of power. In this sense, we sought to contextualize the maximum of the materials worked and restricted the categories to our four lines of exploration. In this way, the material visible in the front

office is a selection of materials worked on or in the process of being worked on. The back office contains over 650 events, although each is being worked on, discussed, and problematized. The back office will remain a research tool for future projects with researchers interested in working on this and other materials. The front office is the interface that marks an end on CREAT_ED

Final remarks: going outside

On the final seminar of the project in June 2023, with critical friends and other participants, we discussed the platform and, although we are providing vocabulary, critical texts, workshop materials and our publications on the timeline, we came to the conclusion that other representations and views may be necessary to answer to the dimension of criticism and resistance that we are looking for. In this text, we tried to expose some of the problems we have been dealing with in constructing the online archive platform as part of the problem that the CREAT_ED project is attempting to research. We do not see the platform as a neutral tool whose purpose is to contain large amounts of data. We intend to find forms of distribution, layout and representation articulated with the problematizations in the project. In the contrasts, contradictions, and interpolations of these representations, we look for the rules of the archive. In this way, we can try to unlearn them and open up other spaces for research and arts education histories.
In addition to not being neutral, we do not see the platform as a setting for good practices in teaching and research

contexts. We prefer to see it as a problematization of the archive itself, where we explore a critical reading of the archive, the unarchiving, and the interpolation that, in fact, are not confined to the platform. On the contrary, there will always be more outside it.

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Learning Through the Senses: Colonialities in the Making of the Western 'White' Child

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Abstract

This text discusses children's learning through the senses as formed through power-knowledge relations and colonialities. This articulation is a separation between the child's body and mind, being the body related to 'nature', and the mind to reason. The separation of body and mind, and the idea of the child closer to nature, was made possible through processes of 'Othering'. The text tries to unpack this making. It also conceives the education of children's senses as a straightening device related to education as a gardening practice. To point out these colonialities in making the Western 'white' child is intended as the questioning of the systems of power-knowledge and the epistemic violence that configured the field of arts education. Some of these colonialities are still active in the present day.

Introduction: Power-knowledge relations and colonialities in the making of the child

This text seeks to problematize how children's learning and the senses were articulated within modern Western**1** education. The articulation implied splitting the senses from reason and then constructing hierarchies among them [[education of the senses]]. In his book *Emile*, first published in 1762, the Genevan philosopher and writer Jean-Jacques Rousseau stated that the child's "sense experiences are the raw material of thought". As such, special care had to be taken to present the child with sense experiences "in fitting order, so that memory may

1 When I refer to Western education, I am referring to the Western European and North American psycho-educational discursivities.

at a future time present them in the same order to his understanding" (Rousseau, 1925, p. 31).

According to Rousseau, the child should only be kept dependent on things. He argued that by this course of education, the adult would "have followed the order of nature". He went even further. Rousseau also declared educators should let the child's "unreasonable wishes meet with physical obstacle only". The child would 'naturally' learn the lesson once "the same circumstances occur again". "Experience […] should take the place of law" (Rousseau, 1925, p. 49).

I argue here that the articulation put forward by Rousseau is possible only through the layer of children being positioned closer to [[nature]]. Within this thought lies the idea that the child's 'unreasonable wishes' are closer to a 'raw' and 'natural' state. Simultaneously, progressive understanding through experience is positioned as closer to reason. The 'fitting order' through which the child should be introduced to the world not only creates a hierarchy concerning those sense experiences but also a device of expectations on how to attain 'understanding'. This evolutionary and developmental way of thinking forms part of the European Enlightenment, and the new modern scientific ways of conceiving the child and childhood.

The notion of development inherent to a child's learning, and its correlation to the 19th century theory of recapitulation (Fallace, 2015), is essential to understanding how this interweaves colonialities into the making of the Western 'white' child [[child development; recapitulation theory; coloniality]]. Colonialities (Quijano, 2007) represent structures of thought and being that,

related to colonial practices, survive in the present and go unnamed. To understand and deconstruct these colonialities, it is crucial to deconstruct their utter reasoning as power-knowledge relations. As Anibal Quijano points out, the Eurocentric version of history and development is based on the idea of "human civilization as a trajectory that departed from a state of nature and culminated in Europe" (2000, p. 542). This reasoning, which incorporates a linear and unidirectional arrow of time, has been the nerve of modern Western education and its making and transformation of the child into a civilized adult. To develop was to become civilized, that is, becoming 'white'[2], middle class, straight, male[3].

2 When I am using 'white' between commas it is to alert the reader that this is a construction of a kind of people that cannot pass as unmarked. I move within Ian Hacking's (2006) notion of making kinds of people as a style of reasoning that creates classifications that form a 'reality'. Terms like 'white', 'non-white', 'Black' are part of a racialized system of power, as it is the concept of 'primitive'. 'Black' and 'white' were defined in opposite ways, being 'Black' people subordinated to the power of 'whiteness', but as racial terms I do not want them to be confused in the text as colors. Saying that they are kinds of people means that they have been made up; they are being made up through arts education discursivities too. To classify people is a style of reasoning of the human sciences with the imperial imperative of government. It does not mean that 'Black', 'Indigenous', or 'white' people did not exist or did not exist before their naming as such. It means there was a point in history in which to nominate them through specific characteristics named as qualities were part of governmental colonial strategies. However, as Ian Hacking points out, classification not only interacts with those nominated but they are also changed by them. Resistance and resignification is part of the making of kinds of people. Indigenous, Black, Queer movements and struggles in the academia, streets, and communities have been historically showing us that. Its appropriation and transformation by these groups of people leads me to capitalize these words.

3 In the previous note, I called attention to 'white' as a kind of people. All these categories that follow it in this sentence (middle class, straight, male, and we could add other ways of classifying people) are also kinds of people. I ask the reader not to consider those as essentialist notions. They are not, as the notion of the child or the creative child is also not. They are the kinds of people that are entangled with power-knowledge relations and colonialities that are being made through the historical and present discourses that are being mobilized in this text and in the archives that form our current ways of talking about these kinds of people. The text tries to pay attention to these makings as the possibility of unmaking their essentialist or non-questioned 'nature,' and, thus, as the possibility of thinking otherwise.

The making of the child (as a universal) through Western education is a coloniality made through power-knowledge relations. Power and knowledge are seen here, according to Michel Foucault (1982), as inseparable twin terms of the very idea of modernity and its modalities of government. In modernity, power is not about repression but about production and mechanisms that fabricate its transformation conditions. Michel Foucault (2003) explains how discipline and normalization are articulated through power-knowledge strategies. The separation of the senses of the child as an object of government, for instance, allowed and applied in the separation itself knowledge about the normal child and its 'Others'. This knowledge carried an authority that aimed to deny full human complexity to those subjected to processes of 'Othering'. At least three lines of force lie in this process: the modern notion of development through the arrow of time; the notion of change through development; the notion of childhood as both an inferior and desired space in the making of the 'white' Western citizen. These are

forms of knowledge that cannot be separated from power nor from the colonialities they carry as comparative ways of reasoning about people.

Colonialities, as representations of these power-knowledge relations, are not only colonialities of the mind but also of the being, which continue to be active in the present. Colonialities are effects of the power-knowledge relations; they are the framing of those relations and have a comparative reasoning inside them that creates the space of normativity and abjection. The child is an effect of these power-knowledge relations and colonialities. The child does not exist outside of the discursive practices that make her in specific ways, and this making, being a technology of power, was based on specific ways of knowing. The power to govern the child was dependent on the knowledge of the child's nature, and this nature was positioned as close to Nature. If one could continue Rousseau's statement, one could say that experience had to follow the 'law' of nature.

My argument is that the layer of children and nature (both the child's nature and the child as nature) 'does'[4] something in educational practices and in our ways of imagining how children learn (and become 'civilized'), that constitutes a primitivist way of thinking about children, essentializing childhood as 'authentic' in contrast to the forces of civilization. The making of children as inferior, immature, irrational beings, as the *subjects-to-be-educated* is part of the Western modern construction of childhood and education as developing processes through the colonial matrix of power (Quijano, 2000). This matrix of power implied a hierarchy and comparison in defining

4 It is important to state that this 'doing' is related to the ways in which discourse is seen here through a Foucaultian perspective (1972). Discourse if the effect of the power-knowledge relations, thus, discourse is about the production of kinds of people and their government. Discourse produces reality, not only describes it.

kinds of people through social produced markers such as race, class or gender; a way of producing knowledge as scientific and objective; and a net of institutions and experts through which such discourses and practices of government would be exercised as *naturally* necessary. The appeal of nature and childhood, and the intersection of the senses, created effects in terms of determining and legitimizing universals about the child and how children learned: from the simple to the complex, from experimentation, through curiosity and imagination, from an engagement with the objects and the world that started out in sensations and perceptions until reaching reason. From their early years, children were surrounded by materiality and discursivities that were there to remind them that there was a journey to complete from the 'natural', 'innocent', 'pure', 'wild' childhood of the senses to the reason of adulthood. From stuffed animals to dolls with cotton bodies and war games on the floor, children were informed how there are specific normative roles that they must learn (Bernstein, 2011). In the text written for the exhibition catalog *The Animal Within*, Jack Halberstam writes:

"Childhood ends, children mature. They become adults, and when they do, they tend to exit the wildness to enter the scripted terrain of normativity. What remains of a wild child, very often, is a box of broken toys" (2022, p. 87).

Those toys, as part of childhood, were there as 'actors' in the making of the child. They were designed with a certain kind of child in mind, even when gifted to other kinds of children (Hacking, 2006). They mediated the passage from childhood's 'wild' nature to the 'civilized' world of adulthood, in keeping with the expected roles assigned to children. The universal child was imagined as 'white', male, hetero (or non-sexual), non-disabled, middle class, and innocent, among other normative labels. Such children need their 'Others' to transform themselves normatively. The racialized child, the pathological child, the abnormal child, the criminal child, and the sexually perverted child account for some of the figurations that established the idea of a pure, innocent, and safe space for the 'white' normative childhood.

I will begin by focusing on the equivalence made between children and the so-called 'primitive', pointing out that it was through fabricated visual affinities that an evolutionary thought became ingrained in arts education practices, reinforcing the approximation between children and nature. The term 'primitive' has its roots in the Latin 'primitivus', meaning 'primus' or first. As pointed out by Jo-Anne Wallace, it stresses "an evolutionary or narrative progression" (1994, p. 173). This was the narrative of Enlightenment which got supported by the evolutionary and recapitulationist theories of the Western 19th century. The Western invention of the 'primitive', as Aimé Césaire (2000 [1950]) and Franz Fanon (1963) denounced, respectively in *Discourse on Colonialism* and *The Wretched of the Earth*, was part of a politics of 'thingification' – how in 1950 Césaire (2000, p. 42) called colonization - through which

Europe represented and produced the 'Other' to justify itself, its processes of exploitation and domination. The processes of 'Othering' in the construction of the 'Western' child follow the same rationale.

The third section will depart from the articulation of children and nature as the rationale for the education of the senses. This sensorial education operated as a straightening device for the rearing of children. A 'straightening device' (Ahmed, 2006) contains orientational forces that establish projections for the future regarding what children should become as citizens of the nation. From here, I develop this articulation of children's senses and nature in what I call the gardening practices of education. The nature of the child as close to plants or seeds extends beyond metaphor and becomes a way to reason about children and their education that creates the environment for the 'right' child development. A child growing sideways (Stockton, 2009) was the feared child of these practices.

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Note on the use of some terms and its implications

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Some of the quotations in this text contain problematic, racist, and violent concepts. The equivalence of the child with those so-called 'primitive' cannot be ignored today in its violence and re-enactment of the matrix of epistemic violence it contains, with material effects in real lives. The equivalence is at the heart of Western art education discursivities, being part of the historicity of the field and still part of the colonialities that take place today.

To be attentive to this means to unpack the whiteness of the field of arts education. As Gaztambide-Fernández, Kraehe, and Carpenter point out, "as a field, the arts in education has been late to reckon with its racist past and white supremacist present" (2018, p. 2). The category of whiteness emerged throughout this project and became important to include as a category of analysis. However, in dealing with archives in which the voices are almost all 'white' and male, the mobilization of these sources carries the risk of reproducing the violence patterns present in these documents. As a 'white' art educator, I know that it is crucial to dive into those archives to start understanding how the field of the arts and education as a 'white' property (Gaztambide-Fernández & Kraehe, Amelia, Carpenter, 2018) was produced through processes of 'Othering'.

In *Memories of Plantation*, Grada Kilomba (2010) refers to 'Othering' as the process in which the racialized subject becomes the projection screen for the fears of the 'white' subject. The 'Other' appears as an antagonism of the 'self'. 'Whiteness', explains Kilomba, is identified with the good self and the 'Black' subject with what is bad, embodying those aspects that coincide "with the threatening, the dangerous, the violent, the thrilling, the exciting and also the dirty, but desirable, allowing whiteness to look at itself as morally ideal, decent, civilized and majestically generous, in complete control, and free of the anxiety its historicity causes" (Kilomba, 2010, p. 19).

'Othering' is part of the rationale of Western children and childhood. To critically describe this process without reenacting its patterns is my goal. The voices of BIPOC

(Black, Indigenous, People of Color) have historically exposed the dehumanizing processes of colonization and the processes that aimed at the objectification of colonized subjects, the systems of exploitation of humans and nature, and the epistemicide it carried within. The words above of Grada Kilomba expose the process. The concept of coloniality from Anibal Quijano helps to understand the continuities of epistemic violence in the present. The concept of straightening devices by Sara Ahmed allows us to understand some of the material effects of the Western ways of knowing. Aimé Césaire 1950's book *Discourse on Colonialism* analysed how colonization was a process of barbarization of Europe itself. On their side, children did not produce discourses we can access, other than those that were kept as registers of their 'development'. 'White' children were conceived as dependent beings to be protected by adults and open to their government. However, today's political involvement of many young people in different struggles, also shows how what we learnt to call childhood as a space of 'not-yet', is a political space on its own.

The problem I have at hand is how to deal with violent historical materials and be as less as possible another reproducer of it. Even if examples of these uses are endless in the literature produced by 'white' educators and art educators, I will reduce the quotations which use derogatory and racist language to a minimum. I am aware that the problem will still be there, also because the simple act of saying 'Others' do not challenge the consolidation of the positioning itself, but the gesture is part of the reparation of the irreparable.

In constructing the modern Western child, the invention of the 'primitive' as a figuration enabled the imagining of a childhood of humanity re-enacted in the child and a future of progress and civilization. Figuration is a concept tool used by Claudia Castañeda to describe how the child appears in discourses as well as across them. It is used to understand how the child was brought into being, discursively and materially. The figurations of the child "are the effect of specific configurations of knowledges, practices, and power" (Castañeda, 2002, p. 3). This kaleidoscope of ideas was being produced at the entanglement of power and knowledge, and implied a linear movement from a 'past' to a future, with correspondingly complexities. In equating the child with the colonized subject and with the past of human civilization, ideas of lack, closeness to nature, pureness, innocence, freedom, and the potential for development were activated in the Western 'white' mind. The developmental approach incorporated the idea of a common design and plan that would unfold in the figure of the child. The 'boy', explained the North-American psychologist and educator G. Stanley Hall, was "the father of the man in a new sense, in that his qualities are indefinitely older and existed, well compacted, untold ages before the more distinctly human attributes were developed" (Hall, 1907, p. 2). This sentence not only expressed the idea of recapitulation in the child's figure but also represented how the child was attributed meaning in thinking about history, the Western self, and civilization (Steedman, 1995).

As the geologist "has learned to interpret the strata and to reconstruct from what he observes there successive chapters of the earth's strange story", argued doctor Louis Robinson, so the physiologist would be able "to decipher the writing of the past" in every detail of man (1894, p. 468). The German historian Karl Lamprecht (1906) stated that after the progress brought by the European philosophers Imannuel Kant and David Hume, it would be the psychology of children permitting to decipher this past. He collected thousands of children's drawings and defended it should be used as historical sources [[see children's drawings]].

Recapitulation theories were in the air since the 1820s, and even if applied to biology, these theories soon resonated within the field of education. The evolutionary concept of recapitulation implied that the development of an organism (ontogenesis) would be similar to the development of the species (phylogenesis). Recapitulation was used to portray racial hierarchies and as a tool theory to understand and govern the child's natural impulses through a learning scale (Fallace, 2015).

Along the hierarchy of human race, the child was located at the basis of the pyramid. In keeping with this perception of child development as encapsulating the history of the human species, their development would also predictably evolve through certain stages. The English psycho-educationalist James Sully stated that:

"The periods dominated successively by sense and appetite, by blind wondering and superstitious fancy, and by a calmer observation and a juster reasoning

about things, these steps mark the pathway both of the child-mind and of the race-mind" (Sully, 1896, p. 8).

Children were simultaneously close to the colonized subject and inflated with the potential to be civilized. As Ann Laura Stoler points out, children were othered "in ways that compare them to lower-order beings, they are animal-like, lack civility, discipline, and sexual restraint; [...] they are too close to nature, they are, like racialized others, not fully human beings" (Stoler, 1995, p. 151). Being too close to nature meant living according to emotions, spontaneity, and freedom other than reason. These were the characteristics that European modern artists, such as Pablo Picasso, Paul Klee, or Oskar Kokoschka, appreciated in children's productions, as well as in the art looted to Indigenous Peoples. Paul Klee, for instance, believed that the beginnings of art could be found both in 'ethnographic collections' or 'at home in one's nursery' (Goldwater, 1986, p. 199). To talk about ethnographic collections was not by chance. As Bambi Ceuppens explains, while art museums and the history of art hosted the objects produced by the so called 'white' civilizations, the objects produced by colonized subjects would travel to the ethnographic or natural history museums, where they could be exhibited "side to side with biological and geological specimens, thus stressing the idea that they were closer to animality and nature than to culture and entirely unable to achieve the levels of white civilization without the direct orientation" (Ceuppens, 2023, p. 13).

Children were considered 'wild' and untouched, 'new' land for exploration. For modern artists, the child's unspoiled

eyes could experience things as they were, and this was perceived as a significant inner force, a universal wholeness. Wilhelm Viola made the point that the work of non-European appeared so strong despite the lack of perspective because "they are created according to the same laws as children's drawings" (1936, p. 25). What modern artists (and progressive art educators) were recognizing in children's art were the qualities they were also trying to achieve in their own works, for example, the scope for freeing themselves from academic and societal rules. In this movement, the figure of the child and the 'Other' became romanticized and exoticized, stressing the differentiations between nature/culture, child/adult, 'primitive'/civilized, emotion/reason. The first terms in the slash represented a space, a time, a way of being and behaving that was both appraised as a 'lost paradise' and a 'not yet' state of being. As argued by Carmen Mörsch, Andrea Thal, and Emma Wolukau-Wanambwa (2019), this is an act of 'Othering' and idealization as "it admires those who have not been 'spoiled' by the Western culture for their 'genuine' capacity to express themselves yet is ahistorical, and thus discounts the relationship between the emergence of these subject positions and struggles for redistribution of privilege".

The time of childhood as a time of *a-reason-still-to-come* and more associated with the body (because children were deemed unable to govern their own minds) is entangled with the construction of the child as an 'Other'. The 'wild' child, as the child closer to nature, unspoiled, unreasonable, intuitive, spontaneous, simple, imaginative, and free (you may add whatever adjectives you can think of

for children prior to educational practices) cannot be seen as an essence of childhood. The racial and gendered discursive materiality surrounding the figurations of the child and nature are complex and embedded in power-knowledge relations (Foucault, 1982). The racial comparisons around the figure of the 'white' child inscribed assumptions about the colonized subject, creating a fantasy and a space of projection (of the past and the future) for the adult Western. The fascination with nature and the non-European is part of the epistemic violence and processes of 'Othering' in order to construct a 'white' Western child and adult. These assumptions constitute the colonialities of being and knowledge in arts education (Quijano, 2000).

The colonialities arise in several texts of modern arts education. One common argument that represents one of those colonialities was that "the pictures children draw are often extraordinarily expressive" (Fry, 1996, p. 84). The words were from the English art critic Roger Fry and followed the activation of the mechanism of comparison with colonized subjects and the 'primitive art' of the past. The exoticization of the 'Other', and the child as an 'Other', inscribed assumptions about kinds of people (Hacking, 2006) with assigned hierarchies and differences. Within the trope of 'expressiveness' was the contrast with 'knowledge'. As closer to nature and not-yet subjects of reason, children stand in the exotic space of 'extraordinary expressiveness' and ignorance.

However, the Western 'white' child was fabricated with the arrow of time within. "Give them a year of drawing lessons", stated Fry, "and they will probably produce

The Historicization of the Creative Child in Education

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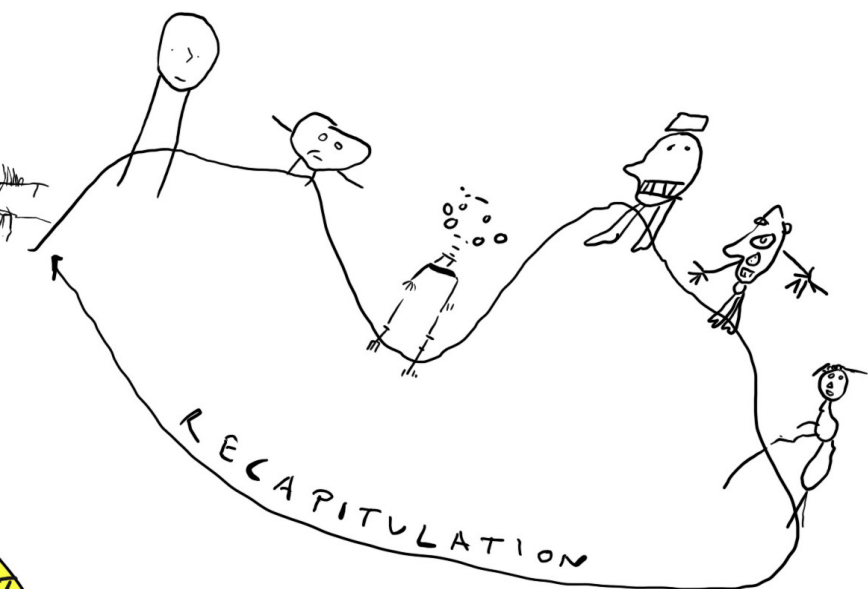
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FROM THE SIMPLE TO THE COMPLEX

results which will give the greatest satisfaction to them and their relations; but to the critical eye the original expressiveness will have vanished completely from their work" (Fry, 1996, p. 84). There is no contradiction in Fry's words. The lack of knowledge attributed to the child in a 'state of nature' co-existed with praising this state. Not only that, while colonized subjects continued to be submitted to violent representational practices and processes of colonization, when articulated with the figure of the child, racialized subjects were both the symbol of freedom and the counterpoint to imagine progress. The gaze of the 'white' subject constituted the closeness to nature as a projection screen for the wishes and fears of the Western adult self. The child was the figuration created to face the Western adult fear of loss and fulfil the desire to have a history (called natural), and a history that was also an inside history (Steedman, 1995). The child within the adult was the metaphor for that exotic and unknown territory that Freud and the psychoanalysts would call the unconscious. As Jo-Anne Wallace also argues, the child was "that 'ancient piece of history' [...] whose presence has left room if not for theories, then for the parent-child logic of imperialist expansion" (1994, p. 175). Wallace goes even further to argue that an idea of 'the child' was a "necessary precondition of imperialism" (1994, p. 176); the child as a figuration of the *subject-yet-to-be-educated* was part of the colonial apparatus inside and outside empires.

The notion of 'visual affinity' becomes essential for
thinking about the common ground created for the visual
approximations of 'white' children's graphic marks and
those of racialized persons and 'primitive art', particularly
rock drawings and cave paintings. Not only for thinking
about approximations, but about their making as kinds
of people (Hacking, 2006) that could be differentiated.
The affinities underpinned the perception of a 'family
of man'. Paget (1932), for instance, published a study
about the drawings of men and women by non-European
children, thus children from Africa, India, and China.
He concluded that those drawings had the same 'sche-
matic' formulas as those of European children. There
were conventional 'signs' and 'symbols' that were used
to produce a universalization.
James Sully also argued that children's drawings, within
a "certain range of individual difference", exhibited "a
curious uniformity" and held parallels with the drawings
of non-Europeans [5] (Sully, 1896, p. 335). This comparative

5 James Sully's book *Studies of Childhood* permanently established
visual affinities between the drawings of European children with
non-European children, non-European adults, and 'uncultured'
European adults. This is made clear, for instance, in the chapter 'The
Young Draughtsman' from his book *Studies of Childhood*, in which
the term 'savage' was used 23 times and 'primitive' was used 13 times
as a means of comparison with children's drawings. For this purpose,
he mobilized ethnological and archaeological studies and collec-
tions. He stated, for instance, that the survival of two eyes in profile
representations of the human figure was present in the drawings of
European children and uncultured adults, as well as in the drawings
collected by the German Von den Steinen in Brazil, the collection of
General Pitt-Rivers in the UK, or in Indian vases.

rationale animated the 'white' arts education discourses from the end of the 19th century to the middle of the 20th century. However, I want to discuss the usage of comparative rationality as a kind of affinity.

The notion of affinity was used by Hall Foster in the text *The 'Primitive' Unconscious of Modern Art*, to unpack the problematic exhibition "'Primitivism' in the 20th Century Art", held by the Modern Museum of Art (MOMA) in New York, in 1984-85. In this exhibition, artworks such as *Les Demoiselles d'Avignon* by Pablo Picasso were presented side by side with African masks, which were often proposed as 'sources' for Picasso's painting in ways that the exhibition dispositive activated "the modern/tribal affinity in art" (Foster, 1985, p. 46). As Foster argues, the 'abstractive operation' through which the exhibition was produced was not only a procedure of decontextualization but a crafted articulation of an empty universal (expressed in the exhibition's catalog as 'human creativity wherever found') in the form of 'affinity' (through the notion of *homo artifex*).

What I would like to stress in this text, in relation to how 'white' children's drawings and the drawings of racialized persons are put side by side, decontextualized, and made close through a common visual grammar, is a similar process. As in the case of the museum, the pages of the studies in which the comparisons were established are just one more stage of several decontextualization processes and power-knowledge relations. As the MOMA's exhibition showed the colonial extraction of objects and their fixation into a grammar of the visual arts modernity, so the drawings corresponded to extractive practices of Western

science in order to produce an image of the progress of the 'white' subject, from childhood to adulthood. The need for common ground in terms of a morphological coincidence of forms was a strategy that, at first, erased difference to allow, on a second move, for differentiation concerning progress.

The laws of recapitulation were applied to the drawings. Despite children's nationality - Egyptian, Mexican, Russian or Chinese - defended Wilhelm Viola, there was "something approximating to an eternal child who follows – unconsciously – eternal laws in his production", and these laws were said to be the same "which guided and still guide the primitive" (Viola, 1952, p. 18). James Sully pointed out that the child's first drawings were "those rounded or ovoid contours which seem to constitute the basal forms of animal organisms, and proceeds like organic evolution by a gradual differentiation of the 'homogeneous' structure through the addition of detailed parts or organs" (1896, p. 382). Some of the drawings, Sully stressed, could even resemble embryonic forms.

The obsession with the 'primitive' was part of the "evil work" that scientists and educators, too, performed "as watchdogs of colonialism" (Césaire, 2000, p. 55). The critical words were from the Martinican poet and playwright of the Negritude Movement Aimé Césaire on *Discourse on Colonialism*:

"From the psychologists, sociologists et al., their views on 'primitivism', their rigged investigations, their self-serving generalizations, their tendentious speculations, their insistence on the marginal, 'separate'

character of non-whites, and – although each of these gentlemen, in order to impugn on higher authority the weakness of primitive thought, claims that his own is based on the firmest rationalism" (Césaire, 2000, p. 56).

The equivalences through drawings were done through the paternalistic notion of 'affinity' as the constitution of a 'family' of lines and strokes. For that, thousands of drawings were collected, separated, grouped into categories, aligned according to stages of development, and compared (Martins, 2018). This was the work of the Western scientific praxis, producing the 'white' child and its 'Others'. The narrative plot varied depending on which kind of children were under focus. The notion of complexity arrived to differentiate the 'white' child from the racialized persons. The effects of these differentiations were particularly visible in the groups of drawings under the 'white' lens. 'White' children could both be compared with the racialized child and adult.[6]

We should pay attention to the argument of development as synonymous of complexity in terms of the arts. The thought of a complexity and a capacity for appreciation and aesthetic development and beauty that belongs to the 'white' subject is at the root of the modern Western epistemological edifice. If this aesthetic capacity was fabricated as a universalist human disposition, the fact is that it was made within a structure in which not all people occupied the place of the 'Enlightened human'. The German philosopher Immanuel Kant built these racial differences into his theories of the beautiful and the sublime (Eze, 1997). In the 1764 text *Observations on the*

Feeling of the Beautiful and the Sublime, Kant established the partition of the sensible, assigning to 'white' people the capacity for aesthetic beauty and reasoning. Friedrich Schiller, in his *Letters upon the Aesthetic Education of Man*, also started from this differentiation and partition of the sensible as differentiating kinds of people (Lloyd, 2019). Examples of these colonialities of thought in arts educational literature are multiple. They are deployed to argue for the development of the Western child's mind from a state close to nature to a cultured stage, establishing hierarchical differences that produced racial principles and the objectification of who and what counted as objects of knowledge. Primitivism is ingrained in arts education practices and generates part of its colonialities as forms of epistemic violence.

Taming the senses of the child, or, from the 'wildness' of children to the reasonable adult

"The child revels in savagery", argued G. Stanley Hall, and, he added, "if its tribal, predatory, hunting, fishing, fighting, roving, idle, playing proclivities could be indulged in the country and under conditions that now, alas! seem hopelessly ideal, they could conceivably be so organized and directed as to be far more truly humanistic and liberal that the best modern school can provide" (1914, p. x). As close to nature, the child's life was a sensorial life. Thus, the child's 'nativistic' and 'feral' instincts should be "fed and formed" (Hall, 1914, p. xi). The senses were opposed to reason and so required incorporating into reason, thus, they had to be tamed. Reason was to correct the errors of

the senses, and this became the role of education.

The Western binary matrix claimed that the body was related to emotions and was the great force operating in childhood, but also characterizing the 'nature' of women and non-European peoples; with reason being the state of 'white' Western male adulthood. The senses were assumed as the 'raw' material of education, its primary ingredients. In his *Lectures on Pedagogy*, the French pedagogue Gabriel Compayré stated that the sensations peculiar to the five senses "are not merely affective perceptions"; they were representative perceptions, meaning they were "the sources of images, of ideas, and of knowledges" (1887, p. 74). As the sources differed from being an image, an idea, or knowledge, Compayré considered the senses perfectible, but there was a margin between what they were and "what they can become by a methodic and regular culture" (1887, p. 77). Exercise would be the secret for educating the senses to achieve higher faculties.

In the perspective of educators, the senses became a matter of concern and they set about configuring governing devices in which the senses captured the child through experience and, simultaneously, gave back to the educator knowledge about their nature. In 1886, Horace Grant published *Exercises for the Improvement of the Senses for Young Children* and provided dozens of exercises for sensory training. Their goal was not so much to amuse children but rather to "excite little children to examine surrounding objects correctly, so that valuable knowledge may be acquired, while the attention, memory, judgment, and invention are duly exercised" (Grant, 1887, p. 5). There were also tips for educators. The teacher should take care

"not to harass the child with questions", but rather start conversations with the child within the role object as mediator (Grant, 1887, p. 12). Children displayed particular natures and these required ascertaining and obeying over the course of their education. This childish way of learning would have to begin with intuitively obtained knowledge, adopting the senses as the path to reason, passing through "sensation, then perception, notion, and finally volition, learning how to act morally based on an individual view of the world" (Carter, 2010, p. 8).

In *Emile*, Rousseau stated that "to train the senses it is not enough merely to use them; we must learn to judge by their means, to learn to feel, so to speak; for we cannot touch, see, or hear, except as we have been taught" (Rousseau, 1925, p. 97). This learning of the senses was part of the self-government of children, and if it had a moral purpose, its great importance was that such learning would be transformed into self-governing practices (Foucault, 1988). Children would learn how to maintain their conduct according to an ideal of freedom that corresponded with undertaking the right behavior.

Throughout the 19th century, in Europe and the United States, object lessons invaded the classroom, very much influenced by Johann Pestalozzi's pedagogies, configured as one path for constructing knowledge through sense-training, and giving rise to whole materiality in education, which thereby produced educational objects and toys within the framework of learning commodities. The objects, whether images or material objects, as part of the sensorial education, were assumed to hold the power to teach children unfamiliar concepts (Carter, 2010).

The role of images in children's education was very soon understood as a *pharmakon*, potentially good but potentially dangerous. Too many images might trigger excessive imagination but the 'right' images would lead to moral character. Images as a path for sensory education were soon understood as a technology for governing the 'Other' in all its multiple figurations, inside and outside empires. Sengupta (2003) pointed out that the rationale of object lessons and sense training also travelled to the colonies. This produced differentiations between kinds of people stemming from their capacities to learn. Introducing the child to an object (or a picture) presupposed that the child would gain a higher stage of an idea. Within this conception arose the differentiation between the child and the adult. The child, experiencing the object through the senses, would be conducted by the adult in the process of reasoning about the world. Developmental reasoning was implicit in this way of learning, in which the child would follow the path of learning from the simple to the complex. A hierarchy was implied in terms of the differentiation between the body and the mind but also in terms of reasoning. Carmen Mörsch also shows how, in the United Kingdom, the *Pictures for the Poor* movement emerged in the latter half of the 19th century as a civilizing device that, through confrontation with artistic beauty, "should encourage the poor to work out a decent existence on their own, to permanently improve themselves in the sense of the virtues associated with respectability" (2019, p. 186). In France, Champfleury wrote in the 1887 edition of Ferdinand Buisson's *Dictionnaire de Pédagogie* that "children's eyes, men's eyes lack images" (1887, p. 1319).

For illiterate population groups, images would be "a kind of educator" (Champfleury, 1887, p. 1320). In Portugal, at Casa Pia de Lisboa, a boarding school that was a laboratory of modern education, the same happened. Images would inform the moral of the soul (Martins, 2009).

Entering through the sense of sight, the way images were conceptualized as part of a sensorial education was through making the child 'empty', being progressively fed through an adequate sensorial diet. The sense of sight was considered the highest, connected with the world, bringing sensations, ideas, and beauty. In Buisson's *Dictionnaire de Pédagogie*, the article on school imagery stated the Western-centric privilege of sight by affirming the considerable and constantly growing importance of teaching methods based on images and objects:

"Globes and geographical maps, tables of the metric system, tables of natural history already adorn the walls of almost all schools, in France as well as in all countries. The commission thinks that there is again a powerful means of developing a feeling for the art. Nothing prevents that these various tables join together at the same time the scientific exactitude, the elegance of the form and the harmony of the color" (Gresse, 1888, p. 1321)

This description, although brief, can make us realize the colonialities in thinking about how the eye is trained in school and the subject positions at offer. The sense of sight was the door to the sensations that would produce reason and knowledge: to know through maps which

were the nation and the colonies, to analyze, count and compare according to a metric system, to objectify and represent nature as an object through picture books, and yet, to elevate the spirit through art. Globes, maps, numbers, measures, art, and aesthetics are part of the imperial narrative. Ocularcentrism was at the center of the modes of organization, analysis, and understanding of the world, with the different artifacts produced for its intensification. All this was universally defined as the 'scientific exactitude', the elegance and the harmony of color, and the elevation from an inferior state to a state of civilizational superiority. The colonialities of thought are about the grids that make us think in certain ways that presuppose this journey, its privileged and unquestioned propositions, and the subject positions being produced, even when explicit comparisons are not being told.

The importance of images as instruments to produce knowledge about the child was also acknowledged. In 1922, the Portuguese educator Costa Ferreira (1922) stated, in line with other international experimental psychologists and educators, that images would be excellent, using appropriate devices to measure the pulse, rhythm, and breathing, which allowed for the reading of the particular feelings that their contemplation would provoke in the child.

The body's sensitivity interrelated to how the senses became a field of study and government, particularly through how physiology, first, and experimental psychology later, sought to understand how the body reacted to certain stimuli. The educational training of the senses could then be developed as a straightening device (Ahmed,

2006). A straightening device is a dispositive that maintains children within a specific expected space with ways of being and behaving that align closely towards expectations. As Sara Ahmed puts it, straightening devices maintain things both in place and to account. In approaching the child and nature, the senses were considered the 'raw' material of education, and as they were 'raw', they might go astray – this was the fear. The nature of the child, however, might then be subject to straight development – this was the hope.

Within modern Western education, the senses did not hold the same privileges or limits, and different values were imposed among them and for each case. These limits and values gave rise to ways of deploying the senses that configured the borders of children's freedom in relation to their bodies. When considering touch, the French physician and educationalist Édouard Séguin attributed the tactile function with great importance in the education of children, whether the normal or the 'idiot' child. However, he stated, "this sense is almost neglected in education, sadly abandoned in children to habits of dirtiness and depravity, and in women its disorders are intimately blended with those of hysteria" (Seguin, 1866, p. 138). The education of the senses appears together with the emergence of the child's body as a sexual body. The onanist is a child's figuration that appears during the 18th century, being pathologized as part of an excess of the senses (Foucault, 2003). The Swiss physician Auguste Tissot portrayed the practice of onanism as the cause of body, mind, and soul decay. All the faculties, he argued, "are enfeebled, the memory is destroyed, […] they have

mental inquietude, [...] they are subject to vertigo; all their senses and particularly sight and hearing, are impaired" (Tissot, 1832, p. 17). In women, onanism was also said to derange "the imagination" (Tissot, 1832, p. 41). The senses were therefore configured as a starting point for children's education but also as a device for their government. Should we take into account the description provided by the French educator Gabriel Compayré about educating the senses, we perceive how an aesthetic and civilizational sense imprinted in educating the senses with governmental purposes in terms of making moral citizens for the nation.

"The senses, such as hearing and seeing, are not merely the intermedia between the mind and the material qualities of the external world. When cultivated from this point of view, they also reveal the sensible beauty of things. Singing is to the ear what drawing is to the eye – a kind of appropriate gymnastics which develops the musical qualities, and leads to the appreciation of the purity of sounds; just as drawing teaches one to know and appreciate the accuracy and symmetry of lines and the beauty of forms" (Compayré, 1893, p. 60).

The child's senses had to be subjected to gymnastics, and that intense exercise had to follow 'naturally', according to how the nature of children was then conceptualized. G. Stanley Hall also argued that the educator should use the resources of literature, tradition, history, and everything that could represent "the crude, rank virtues of the world's childhood that, with his almost visual imagination,

reenforced by Psychonomic recapitulatory impulses, the child can enter upon his full heritage". Following this path, the child would develop into a citizen. The visits to "the field, forest, hill, shore, the water, flowers, animals, the true home of childhood in this wild, undomesticated stage from which modern conditions have kidnapped and transported him", had to be provided (Hall, 1914, p. xi). The fundamental education of the child would take place at the crossroads of stories and nature. However, Hall argued, the 'removal of nature' would be necessary to enter 'highly complex civilization'. By around eight years of age, "we must shut out nature and open books" (Hall, 1914, p. xi). A certain way of reasoning about the material world was inscribed into the making of the modern child as a citizen. I have been framing this reasoning as colonialities of educational practices. Learning and knowing through doing, engaging, and experimenting was becoming evidence that would stick to the ways of imagining what a child was and should be until the time when the child should attain 'maturity'. How differently are these practices thought of today?

The gardening practices of education as straightening devices

In this section, I focus on the gardening metaphors in Western education as the means of thinking about the government of children's minds and bodies. The gardening metaphors served not only for the conceptualization of children's education but also as a more pervasive metaphor for thinking about social and urban reform and planning,

for instance. From the end of the 18th century, gardening became a practice related to a European bourgeois, civilized, tasteful self. This image of the garden encountered its 'Other' in the image of the 'jungle'. Mariana Valverde (1996) argues that imperial travel writing used the notion of the jungle as an opposition to a civilized environment, and urban and social reformers mobilized this idea to think about the government of those bodies and spaces inhabiting poor areas in the city. With children, the thinking was no different.

The child was the 'Other' of the adult, and close to an idea of nature; thus, her first years should be treated carefully to generate a blossoming future. The background for thinking about the child as an object of gardening practices was the idea that a child was a being in development. As argued by Steedman (1995), the study of child development was influenced by the fields of embryology and the study of plant cells. Gardening and education correspondingly become entangled.

According to the Portuguese educationalist Faria de Vasconcelos, without "the child's knowledge, teaching cannot be profitable". The educator was "in the same condition as a man who was a horticulturist without knowledge of botany" (Vasconcelos, 1923, p. 10). Gardening made nature seem controllable.

In his *Pedagogies of the Kindergarten*, Froebel wrote that the child was no "more than the germ of a plant" (Froebel, 1895, p. 5). The tree germ contained the nature of the whole tree, as the "human being bears in himself the nature of all humanity" (Froebel, 1895, p. 5). Children resembled the "flower on the plant, the blossom on the

tree"; they were, concerning humanity, "fresh blossom" (Froebel, 1895, p. 7). The 'blissful' development of the human being was then dependent on respect for the nature of children. As such, education should follow children's nature and cultivate the child "through play, creative self-activity, and spontaneous self-instruction"(Froebel, 1895, p. 6). As with plants, the habitats of children influenced their behaviors.

Planting good habits in children implied weeding out bad habits. It represented the desire to transform the untamed growth of a jungle into an ordered garden. "There is a pliability in the young mind, as in the young twig", stated Isaac Taylor (1818, p. 89). This pliability rendered the young's mind "apt to take any shape into which circumstances may press it". As such, it was important "not to let it shoot awry; nay, to train, and gently to bind it, in the best attainable direction" (Taylor, 1818, p. 89).

The idea of growth was first applied to plants before its progressive extension to animals and humans. The idea of development, on the other hand, is of more recent application. However, since the end of the 18th century, development has been associated with a gradual process of unfolding and advancing through progressive stages. As Stockton (2009) puts it in *The Queer Child*, the idea of growth presupposes verticality, and development presupposes linearity. The child grows not only in stature but according to a linear behavior. The wilful child would be the one that queerized the idea of any 'natural' gradual and linear development. Developmental theories of the child seek to nullify the child who 'grows sideways' and in different directions (Stockton, 2009). "To let children

grow, flourish and mature according to their innate laws of development, not haphazardly" was the quintessence of the Viennese art educator Franz Cizek (Viola, 1936, p. 13). To be a 'gardener', Viola argued:

"Can we, by the way, be anything more and better than that for the child? To remove weeds, tactfully to promote that which is useful for the growth of the child, nothing more. We have no right to hasten the growth of the child by hot-house culture" (Viola, 1936, p. 13).

Moreover, he said, despite the best intentions of teachers in accelerating the children's growth, this would not make the child happy. The secret was in the 'slow maturation' of the child. This would be the best for the children themselves and for the nation. "Do apples from the hot-houses taste better, do flowers from hot-houses smell better, than fruits and flowers grown in the garden?", asked Viola. He was not preaching Peter Pan but only that in terms of education and art, "they should pass through different stages slowly" (Viola, 1952, p. 42).

Metaphors, as argued by Karin Murris (2016), are moral and political. They have 'orientational' functions concerning how we see, talk, and act. These metaphors rationale is embedded in colonialities, i.e., power-knowledge relations, primarily by the subject positions they activate: the adult is the gardener who takes care of the child, who is conceived of as weaker, innocent, fragile, and ignorant concerning knowledge. Those metaphors inscribe exclusions, namely, the 'incorrect', not desirable, or 'wild' ways of growing, and they make explicit that the child

is in a state of not yet full development. They inscribe the differentiation between the will and the wilful child. Education was directed toward the means of cultivating those that were still uncultivated. In *Emile*, for instance, Rousseau used the gardening metaphor for talking about education. "Tend and water it ere it dies", was his advice to mothers (Rousseau, 1925, p. 6). Plants are fashioned by cultivation, said Rousseau; man should be cultivated by education. Everything should, therefore, be brought into harmony with the 'natural tendencies' of the child. These gardening metaphors worked as straightening devices. As well as with the botanical world, the work of watering, weeding, and bending was crucial for the right development of the child. There was an expectation concerning children's development regarding what they would eventually become. As a seed, a plant, or a weed, the child was conceptualized as a gardening object in the hands of educators. Those metaphors also drive a developmentalism rationale which activates a recapitulationist notion of children in the process of becoming 'white', male, heterosexual, able-bodied adults. These images are not illusionary in terms of not being real; quite the opposite, they are constructions meant to become real as 'orientational devices' (Ahmed, 2006) for transforming children into civilized adults. As such, the gardening metaphors in education are part of a governmental rationale in which the production of knowledge was essential for the various exercises of power and, in the Foucaultian sense of governmentality, these practices would be ingrained in children as forms of conducting their conduct, i.e., as technologies of the self (Foucault, 1988, 1991).

PART III
TAMING THE SENSES OF THE CHILD

GREEN · BLUE GREEN · BLUE VELVET · VELVET · RED VELVET

WHO SEES WHAT?

PART III — TAMING THE SENSES OF THE CHILD

THE BRAIN DIGESTS THE SENSE IMPRESSIONS

PART IV

PART I.

EXERCISES ON FAMILIAR OBJECTS.

SECTION I.

Hands.

OPEN your hands — shut them — touch something — hold something — lift something — clap your hands — close your hands together.

Body.

Which is your head? Touch it.
Which is your face? Touch it.
Which is your nose? Touch it.
Which is your hair? Touch it.
Which is your forehead? Touch it.
Which is your body? Touch it.

Colors.

Do you know what is the color of this card? (For this and other exercises on colors, the teacher should be provided with a few colored cards, or bits of colored worsted, silk or cotton cloth — colored

15

GARDENING CHILDREN / PRACTICES OF ...

TICKET FROM CHILD TO CIVILIZED ADULT
PRICE: WESTERN EDUCATION

HOW DOES NOT THE CHILD LEARN TO FEEL?

"TO TRAIN THE SENSES IS NOT ENOUGH MERELY USING OF THEM; WE MUST LEARN TO JUDGE BY THEIR MEANS, TO LEARN, SO TO SPEAK; FOR WE CAN NOT TOUCH, SEE, OR HEAR EXCEPT AS WE HAVE BEEN THAUGHT" J.J. ROUSSEAU IN EMILE

THE FIGURE OF THE CHILD IS A TROPE OF WESTERN SOCIETY

THE ORDER OF NATURE

DEVELOPMENT

THE PAST   THE FUTURE

AN INSIDE HISTORY

WHERE OF T...

SPONTANEOUS

NOT YET

SIMPLE

EXPRESSIVE

RAW

PART I

VISUAL

For Color Education

RED	RED ORANGE	ORANGE	YELLOW-ORANGE	YELLOW	YELLOW-GREEN	GREEN	BLUE-GREEN	BLUE	BLUE VELVET	VELVET	RED VELVET

WHO SEES WHAT?

'THE COLOR SENSE VARIES GREATLY IN
DIFFERENT INDIVIDUALS, BECAUSE OF
HEREDITY AND BECAUSE OF THE
GREATER OR LESS DEGREE OF
CULTIVATION'
MARY DANA HICKS

A World of Things Obvious to the
Senses, drawn in Pictures.

THE CHILD
RECAPITULATES
THE HIST...

A World of Things Obvious to the
Senses, drawn in Pictures.

THE EPISTEMOLOGY
OF THE
WESTERN

PART II

'THE CHILD-AS-PRIMITIVE,
PRIMITIVE-AS-CHILD'

PART OF
THE
HISTORY
OF
WESTERN
OBJECTIVITY

HARMAKON

14. Formal figures maybe
A variety of geometrical and other figures maybe
cut out of a thick sheet of pasteboard for the pupils
to put back into their proper holes.

'PRIMITIVE STATE OF
NATURE IS A WESTERN
FANTASY AND A
PROCESS OF OTHERING, AND THIS
SERVES THE CONSTRUCTION OF
THE WESTERN SELF

STRAIGHTENING
DEVICES
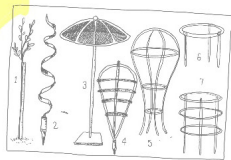
Processes of 'Othering' were figured into the ways of conceiving the Western 'white' child. The child is a kind of people that was made up through power-knowledge relations and colonialities. In this making, certain qualities were assigned to what it meant to be a child, to be a normal or 'abnormal' child, a creative or imaginative child. This way of reasoning made up Western arts education. Today, we no longer make recourse to some of the notions that were used in this text, but primitivism is a 'root' metaphor in arts education (Wesseling, 2016, p. 6). This means that other metaphors and ideas derive from this source, at the conflation of age and race, depositing in the child the hopes and desires of the Western self and, simultaneously, the fears, making the child that conceptual laboratory space for change (and development) through education. Through developmental rationality, the child was made available for intervention, care, protection, education, and civilization (thus, all the government technologies invented by Western modernity to make up children and transform them into citizens of the nation). The child as closer to nature, that learned from their senses, was also considered comparable to seeds or plants. The use of gardening metaphors in education had/has govern-mental purposes. Their goal was/is to make children grow in the 'right' ways while conveying the image that these ways are 'natural' and respectful of the nature of children. The child growing sideways would be the 'wrong' child. These gardening practices implied planting certain habits and orienting certain expectations that should be

unquestionably perceived. Those expectations, although they appear as innocent, remain with us in the present and configure the colonialities of arts educational practices which are the effects of power-knowledge relations. Denial and suppression are the bones of historical amnesia. The historicization of who 'we' are implies challenging the power-knowledge relations and the 'white' privilege this 'we' represents. It means to unpack the notions that seem to be natural, such as the child, creativity, or development. This text seeks to counteract this amnesia by pointing out the colonialities and power-knowledge relations that underpin the existing Western arts education field. Acknowledging the violence inherent to the constitution of the Western field of education and the arts, its making of kinds of people, represents a step to imagine questioning futures able to fight for less discriminatory and less exclusionary practices and representations. This is not to be intended as a solution, rather as a way of problematizing that does not point things as good, bad, innocent, or guilty, but as dangerous, and "if everything is dangerous, then we always have something to do" (Foucault, 1983, p. 343). Or, as Gayatri Spivak reminds us, the undoing of the legacies of the Enlightenment is a difficult task: "It must look carefully at the fault lines of the doing, without accusation, without excuse, with a view to use" (Spivak, 2013, p. 1).

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(Un-)Learning to see:

Images of Whiteness and

'Nature' in the Picture Book Series

A instrucção da creança (1904/5)

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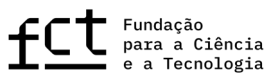
In this essay, I inquire how images and ideas of 'nature' and whiteness were constructed in the picture book series *A instrucção da creança* (1904/05) that was employed in the pedagogical method of the object lesson and travelled from Switzerland to Portugal. I discuss how controlling the visual sense was important to the subjectivation of the child as a 'white' child both in teaching through images and in the object lesson method. In the second section, I engage with the botanical and zoological illustrations contained in this picture book series and how they produce a white subject; again, hinging on the control of the visual sense and the self-effacement of that white subject from the process of making and seeing images of 'nature'.

A beginning

I picked up the picture book series *A instrucção da creança* (1904/05) by Johannes Staub, which was employed in the pedagogical method called object lesson, for this essay to better understand how images and imaginaries, or ideas, of 'nature' and whiteness were constructed in modern education in the 19th and early 20th centuries (Staub, 1904, 1905a, 1905b). This undertaking seems especially urgent to me in the face of the accelerating ecological crisis – inherently a social justice crisis – and the proliferation of artistic and educational proposals for dealing with this. Both the notions of 'nature' and whiteness are crucial in this context. By submitting past and present practices to a mutually critical dialogue, I aim to grasp

the underlying logics and the (dis)continuities in how the images and ideas of 'nature' have been practised in European or western (arts) education. This movement is driven by the wish to find ways of living well together in a more-than-human world and placing this at the core of the educational practices that I seek to contribute to. This reflects the context in which this essay is embedded; a work in its beginnings. Thus, I here inquire: What do the images of the picture book series do? What relations do they allow for? Who are the subjects constituted through the images and the acts of seeing? (Hall, 1997; Mitchell, 1996; Rose, 2016).

Through selecting images from the picture book series *A instrucção da creança* (1904/05), I discuss how 'nature' and whiteness were constructed discursively, paying attention to how these interweave with the late 19th and early 20th centuries discourses on education and on the subject of the child. Thus, this text is about whiteness in white, European cultures with the aim of deconstructing certain aspects and layers. My approach is clearly rooted in visual culture and I enjoy working closely with images. In this essay, I integrate visual analysis based on a discursive approach (Hall, 1997; Rose, 2016) with a material approach that perceives the picture book as a technology of schooling (Lawn & Grosvenor, 2005). At times, I move beyond educational discourses as such into the realm of cultural analysis. I made recourse to this gesture as this enables me to dive into the cultural and social underpinnings informing and informed by the Enlightenment and its visual manifestations that reverberated until the early 20th century; the moment in which the picture

book series travelled to Portugal. Thus, my work swings between representational and epistemological analysis inquiring not only into how whiteness and 'nature' are represented in the western discourse of the 19th and early 20th centuries but also how such representation became possible. Another reoccurring theme is the subject, particularly the subject of the child and its entanglement with the white subject. 'Learning to see' is the thread fiddling through the lines of this text, running from the logic of the picture book as an educational technology to the making of botanical and zoological drawings and the seeming invisibility of whiteness. 'Learning to see' whiteness in the visual discursive formation of 'nature' means to me unlearning my own ways of seeing, finding new postures and new moves of thinking and relating. This essay is one beginning of that undoing.

I come to this text with my white body.

Being ignorant about this or deciding to remain so is the privilege of whiteness. Turning towards whiteness means for me learning to see whiteness, seeking to recognize where I have been lacking awareness. I am working whiteness from within, from within my body, from within the archive, from within the references that are familiar to me as a white, Central/Northern European woman, educated in academic institutions across Europe. By whiteness, I refer to the construction of the white race and the structural privileges that are afforded by white people. Race as a social categorization is based on the production of racial differences at the level of the body such as – yet

not limited to – skin colour and functions strongly at the social level. In this sense, whiteness as a category of race refers to value and belief systems as well as the habits and attitudes that are allocated in white bodies.

Working with the racial imagery of whiteness confronts me with the political problem of finding a terminology for referring to people who are not white. Aware of the problems of negativity the term non-white, i.e. it hinges on whiteness as the point of reference and as its negative, I have nevertheless opted to employ it for this essay. The term black applied by many theorists and activists does not adequately address the vast range of being neither black nor white. The term People of Colour has been in favour concerning this aspect, yet, as much of my argument evolves around recognizing white as a colour, as a racial category. I fall back onto non-white (see Dyer, 1997).

In this essay, I place emphasis on the question on how whiteness is not only reproduced representationally but how it is entrenched in the epistemology of the images acting as educational materials and the respective process of subjectivation tied to it. Whiteness always intersects with other social categorizations and discrimination based on these. Yet, the particularity of whiteness hinges greatly on the privilege for white people in white cultures not to be subjected to stereotyping in relation to their whiteness. In terms of gender, class, nation, sexuality and ability, white people might experience oppression but as Dyer puts it: "whiteness generally colonises the stereotypical defini-tion of all social categories other than those of race. To be normal, even to be normally deviant (queer, crippled), is to be white" (Dyer, 1997, p. 12).

This invisibility, or rather the erasure of whiteness that allows it to be constituted as the norm, is what interests me; particularly in relation to images of 'nature'.

Toni Morrison demonstrates how literary whiteness is constructed inevitably in delineation to literary blackness; employing blackness [1] to construe and give depth to the white subject (Morrison, 1993). White (visual) discourses and literature symptomatically reduce non-white subjects to fulfil a function for the white subject: preventing space for autonomy, permitting neither the recognition of similarities nor the acceptance of differences except as a means for knowing the white self (Dyer, 1997, p. 13).

It seems that whiteness only matters when it is set against non-white. Yet, whiteness is always already predicated on racial difference, interaction and domination – whether this does or does not get pointed out. The worthwhile and challenging task for Dyer, for white people, for me, is to see whiteness even when the text or the image itself is not trying to show it or does not even know it is there (Dyer, 1997, pp. 13–14).

A brief note on 'nature'

'Nature' is a complex term and I find it increasingly difficult to use it. It carries within it the nature/culture binary of such significance within the coloniality of thought as proposed by Anibal Quijano (Quijano, 2007). The nature/culture binary became effective in separating the human from the more-than-human world and simultaneously created oppositions along racial and gender lines: whiteness and maleness were turned into culture and civilisation, while non-whiteness and the female came to signify 'nature'

– a logic that justified racial and gender domination. Environmentalists, ecofeminists and decolonial thinkers have been engaged in carving out the manifold lines in which the exploitation of humans, based on the categories of race and gender as well as on class, have gone hand in hand with the destruction of the more-than-human world (Gesturing Towards Decolonial Futures collective, 2020b; Haraway, 2016; Krenak, 2020; Shiva, 2014; Young, n.d.).
In western modern discourse, 'nature' might describe the essence or characteristic traits of a thing or subject (specific natures), specificities of a place such as a characteristic combination of climate, geology, flora and fauna (local natures) and those universal laws deemed irrefutable (Daston, 2018). 'Nature' has never an exclusively descriptive function but rather also takes on a normative function: by describing something as 'natural' the statement is not only 'this is how it is' but also 'this is how it is ought to be' (Daston, 2018). Thus, that *something* is being 'naturalised', by being rendered essential and fixed. *There is no natural way of looking at 'nature'*.
The images that I discuss in the second part of this essay are indeed images of 'nature', or rather constitutive of the idea of 'nature' in western discourse. Throughout the text, when I speak about life on earth in its messiness, relationality and entanglement, as existing between mountains, trees, animals, water, atmosphere and humans, I will apply the term more-than-human world. This term has become popular in environmental philosophy and humanities and has been formulated as a critique of the narrowness of the word 'nature' and the relationships this creates (Abram, 1996; Haraway, 2016).

Before I engage in discussion of these images and their making, I shall first contextualise the picture book series that I have thus far stroked only in passing. The picture book series *A instrucção da creança. Album Illustrado 1°-4° Caderno* was published in Portugal between 1904/5 by the editors Livraria Magalhães & Moniz, Porto. The series comprises of a total of six books, illustrated and written by the Swiss educator Johannes (sometimes referred to as Johann) Staub and published in Switzerland in 1875/6. Only the first four picture books were translated into Portuguese and with only three of these available in the Portuguese National Library (Biblioteca Nacional de Portugal); some with their pages damaged or missing. Johannes Staub, the author of the picture book that I am researching, was born in Zürich, Switzerland in 1813. He became a teacher and author of historical novels and children's literature. Before he took up his profession as a teacher, he completed an apprenticeship as a ceramicist. He travelled and worked in Germany before returning to Switzerland and joining the Küsnacht teacher seminar (Zürich) where he received his training between 1836-1839 under the supervision of Ignaz Thomas Scherr. Scherr was a school reformer and gained a wider public presence when he published a set of curricula and textbooks in 1830. In 1832, he founded the teacher training seminar in Küsnacht and contributed greatly to reforming the Volksschule system (Binder, 1890). Hence, Staub's teacher training was based on the progressive ideas at

that time, coming out against authoritarian teaching to instead promote child-centred learning. After finishing his training, he taught for over thirty years at a school in Fluntern (today part of Zürich, 1840-1874). Staub took a critical stance towards the existing songbooks that he perceived as promoting a dogmatic religious vision of Christianity and lacking in pedagogical value. Faced by an absence of alternative teaching materials Staub began producing his own more liberal in religious commitment. In 1875/6, he then published his series of picture books, combining imagery of natural history with moral story-telling through images, poetry and short stories (the latter are found at the end of each book in the series) (Brümmer, 1893; Rutschmann, 2012). After Staub died in 1880, the series was then extended by two more books (Rutschmann, 2012).

As mentioned above, the picture books were employed within the context of the pedagogical method of the object lesson. The texts that accompany the images at the bottom of each page share a similar structure with the object lesson manuals circulating in Portugal around that time (see, for example, Paroz, 1883). The German title of the picture book series *J. Staub's Bilderwerk - zum Anschauungsunterricht für jüngere Kinder* (*The picture series by J. Staub – object lesson for younger children*) clearly links the book series to this method and its rationale (Staub, 1923). The object lesson was a popular method among progressive educators across Europe at the time when this picture book was produced and translated. The object lesson method is commonly attributed to the also Swiss educator Johann Pestalozzi and his approach of

Anschauungsunterricht, which he developed at the end of the 18th century and more widely linked to Enlightenment thought and the rising predominance of empiricism within science, anthropology and the emerging field of educational philosophy (Carter, 2018; Pestalozzi, 1819; Sengupta, 2003; Takaya, 2003; Valdemarin, 2000). Pestalozzi, alongside other progressive educators of this time, promoted the idea that children should learn from 'nature' (Takaya, 2003). Through engaging with 'nature', various stages of development would then be passed until attaining adulthood. The principal of the method involved sensorial engagement – often reduced to seeing and the act of observing – with material objects and/or, as in this case, images, through which the subject of the child was supposed to develop skills of denotation, categorisation and abstraction (Carter, 2018; Chakkalakal, 2014; Sengupta, 2003; Valdemarin, 2000). The path of knowledge led from primary sensory perception, mostly through seeing, to the cognitive abilities of reasoning and moral judgement. The world was understood as knowable through observation. Hence, controlling one's mind and the required cognitive abilities were linked with controlling one's visual sense: through the act of observation, the subject of the child distanced herself in relation to the observed object. This would trigger a process of differentiation between the self and 'nature', here turned into a world of objects; constituting the subject-object relationship core to the colonialities of thought (Chakkalakal, 2014, p. 126; Quijano, 2007, pp. 172–174).

Thirty years lie between Staub's publication in 1874/5 and the adapted Portuguese edition in 1904/5. I was unable

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to find conclusive information about how this picture book series made its way to Portugal, i.e., through which channels the Portuguese editors Magalhães & Moniz or the authors who translated and adapted the books, B.V. Moreira de Sá and João Diogo, might have encountered it. However, the existence of this Portuguese translation, or, put differently, the travelling of this piece of the library of education (Popkewitz, 2005), underscores the common trends in progressive and reform education spanning Europe throughout the second half of the 19ᵗʰ century and the turn of the 20ᵗʰ century. Both in Switzerland and in Portugal, this picture book series was possible as an appropriate educational tool. In Portugal, the progressive reform movement within education, the so-called *Educação Novo*, stretched from the early 1880s until 1935 and was articulated in reference to the same sources that informed Staub's picture book series, such as Jean-Jacques Rousseau's *Emile or On Education* (1762) and Pestalozzi's works on the object lesson (Figueira, 2004). At the least, this demonstrates the transnational leverage that Swiss educational philosophy held across Europe in the 19ᵗʰ century, informing reform aspirations anchored in child-centred approaches, emphasizing aesthetic activities, manual labour and teaching in and from 'nature' within education in diverse contexts.

Entering: White looks

Staub's image collection covered the common themes of 19ᵗʰ century education and picture books, ranging from natural history to the depiction of social life and religious events

"such as Christmas (Chakkalakal, 2014, 2019)". Conditioned by their materiality as bound books, this endows a linear reading from the beginning to end and with the order of the contents correspondingly affixed. Of course, this does not mean that one cannot open the book in the middle or skip pages ahead, turn the book upside down or read from back to front. Yet, the habitual usage of the book in societies accustomed to left-to-right scripture works linearly from front cover to back cover and the narrative tends to be structured accordingly. The linearity of the picture book not only corresponds with the methodical proceeding of the object lesson that starts with the simple before moving to the complex; but also according to what is familiar to the child and to that which is 'new' and unusual. In particular, the latter emphasizes how the linearity of the picture books also incorporates a spatial component. The first book starts off from the place of the home and the objects found there, such as furniture and kitchen utensils. This picture book then guides the spectator towards outdoor environments – the fields, a village. The second book begins with indoor workspaces, then takes us to the forest, the mountains, to the tropical rainforest. We move from the close to the far, from the inside to the outside, from that known towards that conceived as foreign to the child.

For the meanwhile, I remain in the place of the home, which constituted the main institution of educational encounters alongside the school in modern education. More specifically, I remain in the home as depicted on the cover of the picture book series that is the same for all the books in the series, thus for both the Swiss and the Portuguese editions (Staub, 1923) (see image 1).

2 For a detailed discussion on the colour white and its connotations in white culture, see Dyer (1997, p. 41 ff.).

As a spectator, I am invited to enter a domestic scene, framed by floral arrangements: three children are gathered together looking at the pictures in a book that the boy in the centre of the image has opened in his lap. The scene emphasizes the intimacy and physical proximity that the materiality or the modality of the picture book elicits. The size of the pictures is not suited to looking at the images from afar, as might be the case for wall images or a classroom blackboard. To "get a good look" for oneself, it is necessary to huddle together, to come close to the images and each other. The darker hair, the intensely blue suit with the red scarf and the black shoes that the boy is wearing as well as the red dress of the older girl to the right side establish a contrast to the otherwise muted colour scheme; proposing them as the lead figures in this encounter. The figure of the mother or caretaker, who is wearing a white dress, frames the scene and simultaneously guides my gaze towards its crucial event: children looking at images.

On a representational level, many routes open up from this cover alone, discussing how gender, class, sexuality, ableism and race are here represented and reproduced. All the persons are white; the clothing and home environment suggest a middle-class traditional family setting; all the persons present themselves conforming to the gender binary; the male child at the centre of the encounter; the woman as the primary caretaker in a white dress invokes ideas of purity and beauty [2]; all persons appear able-bodied, and most significantly in this context, they appear sighted. These lines of representation are eminently traceable throughout the entire picture book series.

image 1 The cover of the picture book series *A instrucção da creança* makes me question how the image constructs a white spectator beyond the representation of white bodies. How is this implicit whiteness rendered invisible? How does this implicit yet invisible whiteness play out when images are employed as educational materials?

However, I am also asking: What layers of whiteness are invisible here? It might seem obscure to suggest that whiteness can be invisible in the images of white bodies. The bodies on the cover of *A instrucção da creança* are undoubtedly white, as all bodies in the picture book series are. What I am trying to work out is just how these images produce a white spectator, or rather, a white child as the desired spectator. In that sense, whiteness operates not only on the representational level but also has effects in processes of subjectivation. I wish to draw your attention to how, as spectators, we are invited to enter the cover image and, by extension, the picture book. Through a circular cut out, we peek into the family home and this moment of engaging with a picture book that, as I have established above, elicits a certain intimacy. The act of 'peeping' is charged with connotations of voyeurism. In early cinema, peeking through the keyhole was a common cinematic device, so evidently establishing the division between who is seeing without being seen – the subject – and who is being seen without the possibility of returning the gaze – the objectified. That seeing subject is the white subject, the subject that has been imbued by its own logic with the right to look, with the power to claim "a subjectivity that has the autonomy to arrange the relations of the visible and sayable" (Mirzoeff, 2011, p. 1). Visuality is understood here as the right to visualize history and the world. Visualizing as an act always implies the creation of an order and categorization. This represents an imaginary act rather than only a perceptual one as this constitutes ideas, information and images (Mirzoeff, 2011). Visuality and the act of visualizing is crucial to the

creation of racial difference. bell hooks expressed it most poignantly: "There is power in looking" (hooks, 2003, p. 207). Both hooks and Mirzoeff elaborate on how the plantation system and enslavement were crucially hinged on looking relations: on the controlling, dominating look of white imperialists and the denial – yet never entirely successful suppression – of non-white, enslaved people. Those relations and the politics of looking persist and pervade until today.

Peeping and voyeurism also contain a gendered layer. The spectator imagined here is male, looking at and devouring the scene [3]. It commonly is the female body that is objectified and desired. The politics of the gaze have been widely discussed in theory on cinema, yet, (white) feminist film studies have often overlooked how race and gender intersect (hooks, 2003). In phallocentric spectatorship, the desired body is explicitly white; in hooks essay, she refers to cinematic representation which was mostly informed by the absence of black female representation in early films (hooks, 2003, p. 210). The non-white female body was constructed significantly different to the white female body imbued with ideals of beauty and purity in white cultures, here emphasized by, or one might say repeated, in the second layer of the white dress. Dyer argues that white womanhood is molded on the Christian belief of Mary: she received the divine (Christ) in her body yet circumvented visceral, corporal desires through immaculate conception. Simultaneously, the matter of race is a matter of bodies and, as such, about their reproduction. Hence, heterosexuality was necessary to ensure the continuation of the white race

3 I refer here to the viewing position the spectator is provided with through the image, its materiality and aesthetics. This does not deny the possibilities of a resisting or oppositional gaze/ interpretation such as black female spectatorship described by bell hooks or queer readings and appropriations of (moving) images as can be found more commonly in popular culture. Here, I am interested in the subject position that was implied or desired as the spectator and how this implication structures and is structured by the image in its composition and meaning potentials (Betscher, 2014).

which, amongst many other effects, imposed a moral impetus on white women to become mothers, positing in their bodies the responsibility for reproducing a white society (Dyer, 1997, pp. 24–27).

Thus, white womanhood is articulated through the impossibility (realised in the Christian myth of Mary) of reproducing white bodies but without the bodily, sexual desires implied in such reproduction. Dwelling on this thought, I began pondering on the particular role of the white woman in the picture. She might be a mother but she also mobilizes the image of the white female educator and early childhood teacher. Was education, understood as social reproduction, the means through which ideals of white womanhood – reproduction without sexual intercourse – were possible to be realized?

Entering the book cover by peeping through the keyhole, posited as the subject who can visualize, constructs a white, male and heterosexual spectator as the imagined or ideal spectator. However, it is not only a female white body represented here but also three white children. Matters of desire function differently concerning the child and I will shortly return to this question (see section *'Primitive': linking the senses, the non-white and the child*). Another interesting visual strategy in the cover image stems from the mise-en-abîme: the picture books in the image (one leaning against the chest and with two more falling out of the frame) are the same as that of the picture book itself. The picture book cover is repeated in itself and thereby suggests an infinite or as the term brings to mind "abyssal" mirroring. It seems almost too preposterous as an analogy but I cannot help touch on it: the mis-en-abîme

suggests an imaginary of *white people looking at white people looking at images* that perpetuates into infinity while simultaneously erasing the white spectator constantly from the image through the peeping mechanism. This conveys one of the paradoxes of white identity as Dyer puts it, of displaying whiteness while maintaining a position of invisibility (Dyer, 1997, pp. 29–30).

The child-image complex

The cover image is framed on the left by the white woman whose gaze as well as her right index finger are pointing at the picture book – guiding the children's attention, as well as my own as the spectator, towards the picture book. The boy who holds the book in his lap imitates the pointing gesture of the motherly figure with his left hand. The act of pointing towards, drawing attention towards *something*, hence becomes the act of showing as an educational gesture, here also functioning as an instruction on how to use this picture book (see Biesta, 2017). No further textual information or instruction is provided prior to the spectator moving onto the first image. This leads me to the reflection that the usage of picture books and the act of showing constituted a habitual practice for the teaching of children. Showing involves an action crucial both to modern education and to the object lesson method; and showing continues to be considered an archetypical gesture of education (Biesta, 2017, p. 44). The showing of images differs from the observation of *things*, of material objects *as such*, due to the representational functions of images. For the object lesson, the image initially served

more as an auxiliary tool and direct engagement with the material objects in themselves was preferred (Chakkalakal, 2014, p. 126). Images were mostly due to come in when the objects themselves were not available for presenting to the child. Nevertheless, images as educational tools soon proliferated and pictures eventually became commonplace in modern education.

The image as an educational tool became possible during the late 18th and 19th centuries through what Silvy Chakkalakal terms the child-image complex of modern education and the notion of experience as a naturalised part of childhood (Chakkalakal, 2014, pp. 177–187). The *Orbus sensualium pictus* (1658) by Comenius is often referred to as the first picture book for educational purposes, bringing to the child and laymen "a world of things visible to the senses, drawn in pictures' – which is the subtitle of the book" (Biesta, 2017, p. 45). Comenius' *Orbus sensualium pictus* can be linked with the Lutheran tradition of picture bibles. Driven by the wish to democratise access to Christian knowledge, picture bibles were directed to the illiterate populations. Here, illiterate populations – so-called 'simple' or common people and children – were thought of together in relation to the image. Hence, the child-image complex emerged within a context where written knowledge in the form of books and scriptures was reserved for savants and experts (Chakkalakal, 2014, p. 110).

Despite its direction towards children as audience, the *Orbus sensualium Pictus* differs from the manners in which images were employed in modern education because Comenius' book applied the Descartian philosophy that

all ideas came from God (Chakkalakal, 2014, p. 113). This means the images did not represent the material objects themselves but the ideas that humans held of those things and those ideas continued to come from God (Chakkalakal, 2014, p. 113). Sensorial perception of images merely was one way of reaching the already existing divine ideas. Thus, while Comenius' picture book introduced the image as an educational tool or medium suited for children, his work was embedded in a different epistemology than that of Staub's picture book series. To understand the shift from images being tied to a divine order towards a social order, the concepts of experience and sensorial perception are crucial (Chakkalakal, 2014, p. 132).

'Primitive': linking the senses, the non-white and the child

With the emergence of empiricism in the 18th century as the means of producing knowledge, sensorial perception was no longer perceived as a tool for communicating or channelling ideas but sensory perception rather became a constitutive part of cognitive processes (Chakkalakal, 2019, p. 148). Following the Enlightenment, the spirit or soul /mind as the source of ideas and consciousness was no longer located in God but instead in Man. The senses became the interface between the body and the soul/mind while the latter was now naturalized as part of the body; the soul/mind was no longer a metaphysical entity but a physiological concept (Chakkalakal, 2019, p. 150). While breaking from God and turning towards Man, Enlightenment thought still maintained a dualistic

philosophy of the subject. This, according to Dyer, gave way for a divine spirit within the human interlinked with whiteness (Dyer, 1997, p. 16). Dyer traces the notion that there can be a divine spirit that resides *in* the body but is not *of* the body back to Christianity and the figure of Christ who is (rather incomprehensibly) simultaneously God and human (Dyer, 1997, p. 14). By perpetuating the dualism of spirit/mind and body, now both located within the human body, sensorial perception needed to be differentiated from the divine spirit/mind.

This crucial division was largely made along racial differences. While non-white people in white culture can be reduced to the corporeal, to the body, and thus to race, white people are constituted as something *else*, or *more*, something *beyond*, something not of flesh (Dyer, 1997, p. 16). Yet, the dichotomy of senses opposed to spirit/mind is also active in the child/adult dichotomy. Cat Martins establishes how the notion of the 'primitive' was crucial to making the link between the senses, non-white people and the child possible [[see Cat's text 'Learning through the senses', booklet 3 in this publication]]. Placing the senses outside of the white adult subject – in childhood, in the far away, in the non-white 'Other' – was a necessary underlying logic for developmental educational theory. The white child was considered to have the potential to 'develop' reason and moral judgement, to extend beyond the sensual state, to exceed the corporal. That stage of childhood as well as non-whiteness was indeed described as 'closer to nature', invoking again the nature/culture binary underpinning the coloniality of thought [[see Cat's text, booklet 3]]. While non-white subjects were made

reducible to the corporal, the 'primitive', 'nature' and the sensual, and would be seen as falling easily "prey to the promptings and fallibilities of the body", in contrast white subjects could master and transcend the white body (Dyer, 1997, p. 21).

The senses became a projection surface for the 'Other' within the white subject. For the white, particularly the white male subject, controlling the senses became a fundamental struggle (Dyer, 1997, p. 24). Dislocating the realm of the sensual outside the white body and projecting it onto non-white bodies, as well as onto the female body and onto (the body of) the child underpinned the justification for controlling the senses of those subjects. The projection of sensuality as well as sexuality onto non-white bodies or even rather *on race as such* – significantly not considering whiteness as race – was a means for whites to represent yet dissociate themselves from their own desires, from their own bodies (Dyer, 1997, p. 24). In her essay *Eating the 'Other'*, bell hooks describes how the desire of the ascetic scientist is to come into contact with the 'Other' as a way of making experience. Foucault stands in as the ascetic scientist and is read as a white subject who has dissociated from his own bodily desires (hooks, 1992, p. 370). Locating desire outside the white subject and in the Other, the bodily and the non-white turns into something ready to be experienced. Experience then sustains us as white subjects by devouring the experience of the 'Other' or rather devouring the 'Other' *as* experience. To again echo Morrison and Dyer, the white subject feeds from non-whiteness. Constructing the child as a sensuous being also makes the figure available as a

projection screen for the adult's desires for experiences. Both non-whiteness and childhood are turned into the sensuous 'Other' [[see Cat's text, booklet 3]].

In empiricism, sensorial perception was necessary to produce and verify knowledge but required controlling in order to do so – the object lesson method both manifested and simultaneously reproduced these logics. Apart from controlling sensorial perception, inputs needed to be processed cognitively which would then lead to the creation of (the right) ideas (Chakkalakal, 2019, p. 150). This two-fold process came to mean 'making experience' (Chakkalakal, 2014, 2019).

Solely sensorial impressions of an image were deemed an "animalistic activity" and only cognitive, rational reflections on images were believed to lead to the judgements and ideas which, in turn, would be classed as human activity (Chakkalakal, 2014, p. 164). Purely affective states or sensorial impressions that would not lead to (the intended) abstractions were – once again - located in the early stages of childhood and correlated with the 'Others' of education –women, illiterate people/working class, non-white subjects, differently-abled people – that were rendered as such by being made 'primitive' as I have argued above (Chakkalakal, 2019, p. 158) [[see also Cat's text, booklet 3]].

Amongst educational philosophers it was assumed that through controlling their senses, the child would 'naturally' arrive at the proper abstractions and ideas, judgement and rationality; this belief manifested clearly in the object lesson method. What does this idea of 'natural' development serve in this context? As initially already

posited, Daston argues that in western discourse, 'nature' never contains only a descriptive function but rather also a normative function: by describing something as 'natural' the statement is not only 'this is how it is' but also 'this is how it is ought to be' (Daston, 2018). Thus, that something – here the development and the subject of the child – is thus 'naturalised'. The white child becomes naturalised as the child able to process sensorial impressions through cognition, who can develop, who can, through experience, transcend the white body by means of controlling her senses.

What I have sought to establish here is how the dualistic philosophy of the subject, based on the split between mind/spirit and body to both residing in the body gave way to the construction of the white subject as a subject of rationality. Along the same movement, the realm of the sensuous became both a desire that require control and dislocating outside of the white adult subject; into the child and non-white subjects. Through the logic of developmentalism, the linkage between the 'primitive' and the sensuous, the child and the non-white became possible. The dislocation of sensual desire into non-white bodies enabled the possibility to 'experience' the non-white as a means of sustaining the white subject.

'Making experience' became linked to the development of the white child that through this process could reach (divine) reason. Making the right experiences, hence drawing the right rational conclusions from any sensorial input, would be enabled by learning to control one's senses; by learning how to see.

Both pictures and 'making experience' were thought to imprint sensory-physical impressions on the child's mind/brain (Chakkalakal, 2019, p. 149). Therefore, images became an important realm in which sensory inputs were fabricated and directed; and as is my concern in the next section of this essay, an important space for negotiating and creating knowledge about 'nature'.
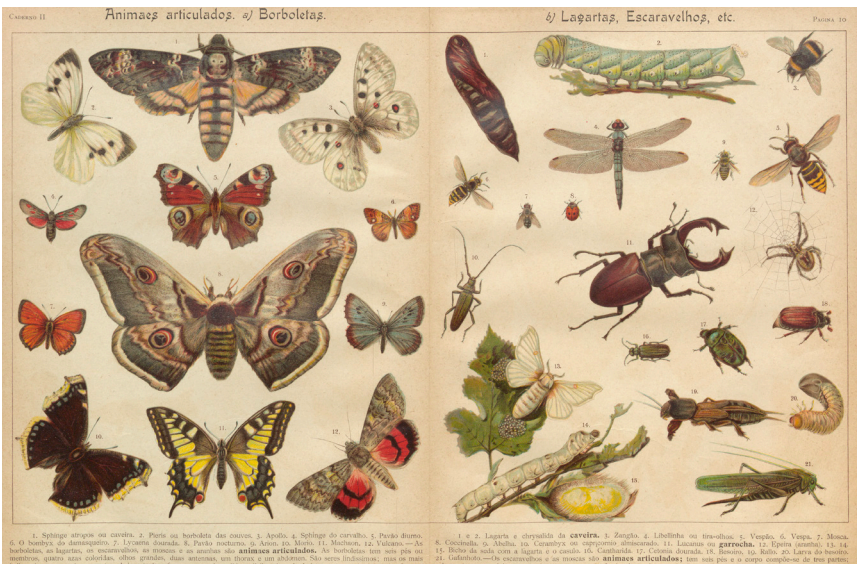
image 2 Illustrations of insects with minute details were considered a prime discipline amongst natural historians because their making required the highest degree of (cognitive) attention and the endurance of physical pain and discomfort. Attention became a virtue of the subject able to control her gaze and, in turn, the volatility of attention and distraction were made typical attributes of the child who had not yet learnt to control her senses.

In modern education encounters with animals and 'nature' are believed to generate a positive effect on the development of the child (Taylor & Pacini-Ketchabaw, 2018, p. 3). Thereby, only one of the many diverse ways in which children and the more-than-human world are engaged in each other's life is attributed legitimacy. Teaching from 'nature' was the guiding principle in Pestalozzi's idea of the *Anschauungsunterricht* and progressive education more widely. As mentioned above, the notion that children are 'closer to nature', closer to an animalistic state, closer to the senses, is advocated by developmental educational theory and manifested in educational practices such as the object lesson method that would lead from sensorial perception to abstract, rational thought; from 'primitivism' to civilisation.

Amongst many other things, the concept of 'primitivism' suggests or gives way to assumptions about the relationship between non-white subjects and the subject of the child with the more-than-human world. In the long run, I aim to understand both how those assumptions materialised visually and how they manifested in educational practice. The goal of this second section of the essay involves understanding how the images of 'nature' present in Staub's picture book series, and hence inhabiting children's worlds, (re-)produced whiteness. It is important to note that the series comprises various images that invoke partially contradictory notions of 'nature'. In their complex interplay, these various 'natures', bound together in the
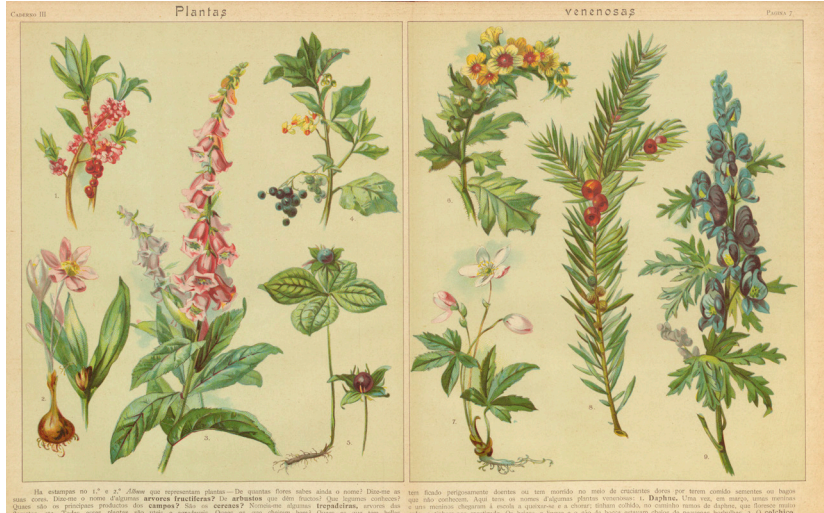
image 3 The visual conventions and standardization at work in images of natural history, displaced and decontextualised animals and plants onto the exhibition structure of a blank page. They were drawn out of their messy, entangled relations in the more-than-human world as much as the white subject drew itself out of 'nature'.

picture books, or if one will, bound together by a larger cultural logic, juxtapose these discursive phenomena in their complexity. Thus, in this essay, I am merely carving out one side, one layer of many more of how whiteness is active in the images of 'nature' employed as educational tools in the object lesson.

The images I have chosen from the series represent the more-than-human world through drawings of plants and insects as common to the natural history of the 18th and 19th centuries (see image 2 and image 3). At that time, natural history had become the dominant science in European societies and its influence cannot be perceived outside of colonialism (Bewell, 2004; Pratt, 1992). The systematisation of 'nature' was a project of visualization according to how Mirzoeff employs the term: the production

of visuality that orders images, imaginations, subjects and the material world; by extension creating a social order and making that order seem 'right' and aesthetic (Mirzoeff, 2011, p. 3). This visualization of 'nature' is not merely an outlook on the more-than-human world but was deployed in its transformations, both in Europe and the colonised parts of the world. The exploitation of humans went hand in hand with the exploitation of the more-than-human world, both entangled in economic, epistemic and physical violences (Bewell, 2004, p. 10; Gesturing Towards Decolonial Futures collective, 2020a; Krenak, 2020; Pratt, 1992, p. 36; Shiva, 2014). The epistemic violence was realised amongst other means, through the imposition of natural history as a universal knowledge system by eradicating non-white, non-European as well as peasant knowledge systems of the more-than-human world (Pratt, 1992, p. 36; Shiva, 2014). Botanical, zoological and geological drawings, with many manufacture in the colonised parts of the world, were furthermore employed to identify which species might be profitable and worth investing in by the imperial powers (Bewell, 2004, p. 10; Bleichmar, 2006, p. 84). Images became particularly important communication tools for scientific as well as economic endeavours as they survived the long overseas journeys significantly better than herbarium specimens and animals that often rotted or died during the voyage (Bleichmar, 2006; Daston & Galison, 2007).

It is interesting to note how, at least to a certain extent, the democratic tendency of the Linnean system, that significantly informed natural history transnationally (The System of Nature, 1735), made it culturally persistent. The

ambition was to establish a system that enabled anyone who had learned it to place any plant found anywhere in the world whether or not that plant was previously known to science (Pratt, 1992, p. 27). This democratic aspiration reinforced the application of the system outside scientific environments, not only making natural history a common and popular leisure activity for the bourgeois class but also turning it into a prime topic for educational purposes (Pratt, 1992, p. 27).

It is this broader cultural context that made it possible for Staub to draw these images in 1875/6 in Switzerland. The images are hand-drawn by him and they were then reproduced as lithographic coloured prints. The two exemplary images that I feature in this essay are zoological drawings of insects (entitled "Articulated animals: a) butterflies, b) caterpillars, beetles, etc.") and botanical drawings of "poisonous plants". Small numbers alongside the individual plants and insects refer to the texts at the bottom of each page that state the names and sometimes a few characteristics of the respective plant or insect. In a few cases, additional information is provided, as in the instance of the botanical drawing that describes which parts of the plants are poisonous.

The insects are depicted either in top-down or lateral perspectives; the plants are drawn only in the latter. The isolated visual elements are composed in a bright juxtaposition, side by side, each on their own. The clear delineation of each entity against the backdrop of the blank page and the distance between each entity allows for a gaze that can differentiate one from the other. My gaze gets stuck on the page, I wander from butterfly to

butterfly (that is all they are to me at that moment). When my eyes find another critter immobilized in white space, my gaze becomes pointy. It is an identifying gaze that makes distinctions and comparisons possible; the comparing gaze was crucial to the classification of plants and producing the idea of an ordered world through natural history (Chakkalakal, 2014, p. 126). This visual convention and standardization placed animals and plants on an empty page almost as if objects in a cabinet drawer (Bleichmar, 2007, p. 180). It is not only a displacement of 'nature' but a decontextualization (Bleichmar, 2007, p. 180). Just like the cabinet, the blank page is also an exhibition mechanism; one that displaces and renders irrelevant both local specificities and the relationality that vibrates in the more-than-human world.

Visual parameters figured strongly as tools for identifying the taxonomy of plants in the project of natural history based on the Linnean system (Pratt, 1992, p. 25). The overall acclaimed mission statement was: "making order out of chaos" (Pratt, 1992, p. 25). Hence, a distinguishing, identifying gaze and the respective representation of plants and insects that enabled such a gaze is not surprising. Some of the plants are displayed with their roots, others fade out into the page at the stem; a few of the plants are drawn in different stages of blossoming. Bleichmar argues that such a representation became common due to the conditions of expeditions in colonized parts of the world, where European scientists/artists had to rush due to the travel speed and as a means of efficiency sketched one plant in various stages (Bleichmar, 2006, p. 90). So, who is that subject construed through these images?

With the picture book opened in their lap, the child is, just as I am with the same book in my lap, introduced to a perspective of 'nature' that can be identified and classified through visual parameters of a system that claims universality; a vision of an ordered, decontextualised 'nature'. The subject of the child here is a subject who relates to 'nature' through paper-based representations – textual and visual. Pratt emphasizes the omittance and erasure of peasant ways of relating to and knowing the more-than-human world within Europe. With increasing urbanisation, the dichotomy of periphery and centre fuelled and affected the formation of different 'natures'. This discussion should be furthered by taking into account the images of agricultural work that Staub's picture book contains and that deepen the complexity of several notions of 'nature' coexisting in the picture book series. On this occasion, I remain with the argument that the imagined subject of the child of the natural history illustrations is a European and urban subject and that 'nature' was believed to be knowable through viewing images of it while employing an identifying, classifying and comparing gaze.

Self-effacement of the subject

How does whiteness in particular figure in this? I have come to find clues in Lorraine Daston's and Peter Galison's extensive study of the epistemologies and methodologies of image-making within natural history in the form of atlases. The purpose was to standardize the observed objects (plants, stones, animals, weather phenomena) as much as the observing subjects by eliminating idiosyncrasies

both of the phenomena and of the individual observer (Daston & Galison, 2007, p. 63). This is crucial: the act of observation and image-making in natural history was not only concerned with ordering the worldly phenomena that were thought to be found outside of the self but also to standardize the subject herself.

Depicting 'nature' "faithfully" was one of the greatest concerns for the field of natural history, and how to achieve that troubled scientists in the Europe of that time (Daston & Galison, 2007, p. 174 ff.). Human intervention was necessary to compose the desired order of 'nature', yet the European observer had to disappear from the scene – and all this in the name of scientific verifiability and objectivity (Daston & Galison, 2007; Pratt, 1992, pp. 31–32).

Daston and Galison describe two main principles that guided the making of images in the 18th and 19th centuries that, despite their radically different logics, co-existed and made sense culturally. They termed the first principle, present since the 18th century, *truth-to-nature*. In order to fit the variability and individuality of the more-than-human world that seldomly repeats itself into the system of natural history, scientists needed to intervene through their image-making practices. Standardization was achieved through the selection of typical, ideal, characteristic and average images (Daston & Galison, 2007, pp. 63–69). What exceeded the categories was deemed strange and monstrous, as if deviating from the course of 'nature' (Daston & Galison, 2007, p. 67). This was often the case for the species and phenomena that scientists encountered in the colonized parts of the world; the Linnean system

had not been established with those places in mind so that many of the local species were disregarded as non-conforming or were made fitting. Alan Bewell sets out some examples of how certain species eventually slipped into the catalogues of natural history with their local names and cultural connotations, thereby occasionally imploding the imposed Linnean system (Bewell, 2004, pp. 7–8). During the second half of the 19th century, and coupled with the emergence of empiricism, the second principle termed *mechanical objectivity* emerged and provoked an inversion of image-making practices within natural history (Daston & Galison, 2007, p. 117). When idealizing, schematizing, and typologizing interventions were considered a virtue in *truth-to-nature* images, they now became a scientific vice (Daston & Galison, 2007, pp. 117–120). The human mediation between 'nature' and representation was mistrusted as individual interpretations were feared to be projected onto 'nature' (Daston & Galison, 2007, p. 120). The self-effacement of the scientist and/or artist from the images, i.e. the elimination of human interference in the image-making process, was thought to be achieved by employing mechanical instruments such as cameras and wax moulds but also through a set of procedures and strict protocols that the scientists/artists would need to follow "to move nature to the page" (Daston & Galison, 2007, p. 121). This required a certain kind of subject: diligent, self-restraint and with scarce genial interpretation (Daston & Galison, 2007, pp. 121; 197). A subject who would be able to control her senses and who would not fall prey to her bodies' fallacies.

Nevertheless, this was also a subject that avoided giving in to pre-existing ideas. Those pre-existing ideas were understood as an imagination that had gained too much independence and forced itself upon the way something was looked at. Engaging in observation as an empirical method, deduction and the imposition of ideas needed avoiding. 'Learning to see' became a key trait for scientists/artists in the image-making processes within natural history (Daston & Galison, 2007, p. 140).

For example, the fabrication of images of insects – such as those in Staub's picture book – and the illustration of minute details were considered a prime discipline amongst natural scientists and artists as they required the highest degree of (cognitive) attention and the endurance of physical pain to remain bent over tiny animal bodies for hours (Daston, 2008). Attention was a virtue of subjects capable of controlling their gaze. Along this same line, Chakkalakal notes that volatility in attention and distraction were deemed typical attributes of the child who had yet to learn to control her senses (Chakkalakal, 2014, p. 126).

Relating to the matter of whiteness, what becomes clear here is that the idea that the senses required to be controlled permeated natural history as much as educational philosophy and practices. Should you concur with the argument that the white subject in white cultures was constructed as the subject controlling her senses and desires, the scientists engaged here in what they called the 'faithful' representation of 'nature' is a white subject. The erasure of human interference and, hence, erasing the white subject from images, was crucial to producing

images in accordance with the principle of *mechanical objectivity*. Becoming an empty vessel, a neutral instrument producing images of the world was the goal of the white scientist/artist subject. This also implies that the subject is disparate from that world, from the 'nature' that she is gazing at.

The images of Staub's picture book series that I brought to this discussion were conceived within the context of the object lesson method. This method was not concerned with the production of images but rather with the processes of 'learning to see' the world. Images were understood as leaving sensory-physiological imprints on the mind which, in turn, made the impressionable mind prey to "false" and "harmful" ideas (Daston, 2008, p. 225). Within natural science, the impressionability of the mind underlies the procedures of *mechanical objectivity*, aiming to erase human fallacies by controlling sensory perception. Within education, the impressionability of the mind and, in turn, images perceived as leaving imprints, became a space where concern over the fabrication of the desired imprints and sensory inputs became important. The object lesson method was one means of primary childhood education in the 19th and early 20th century through which the child's mind and body would be worked "before the will to resist emerged" (Daston, 2008, p. 225). Seeing the world, seeing 'nature', quite practically meant reproducing what the manuals and teachers presented as descriptions of that 'nature', of that world. The particularity here is the erasure of the positionality from which the knowledge had emerged. The white position from which the world was constructed, that informed

the image of 'nature', is being naturalised and thereby fulfils a normative function. The comparing, identifying gaze and the decontextualised visualization of 'nature' were rendered universal by the erasure of the subject who sees. Or rather, this was an attempt at that erasure. The challenge remains to recognize the whiteness that (literally) made these images.

Thoughts to conclude and to be carried onwards

In this essay, I set out to discuss one layer of how 'nature' and whiteness was discursively constructed in the late 19th century and early 20th century discourse on education and on the subject of the child alongside a selection of images from picture book series *A instrucção da creança* (1904/5) by J. Staub. As an educational material of the pedagogical method of the object lesson that was then popular amongst progressive educators across Europe, the picture book series travelled from Switzerland to Portugal while making cultural sense in both places.
I have drawn out how the cover of the picture book series promoted a white subject as the desired spectator, as the subject who can visualize, who has the power of looking. The image does not only reproduce whiteness through the representation of white bodies but through the visual mechanism of the keyhole and the mise-en-abîme. I argue that the constitution of a subject who can visualize and is simultaneously being rendered invisible are significant traits of the white subject. The erasure of the self from images also plays a crucial role in the botanical

and zoological drawings as common throughout the natural history practices of the 19th century. Controlling the senses, particularly the visual sense, was believed to create "faithful" images of 'nature'. The systematization of 'nature' that required human intervention went hand in hand with the erasure of that very intervention and manifested visually in the exhibition structure of the blank page, for example. I link the self-effacement of the visualizing subject from the images, achieved in accordance with the principle of *mechanical objectivity,* to the (re-)production of a white subject. The child is introduced to an idea of an ordered, decontextualised 'nature' that can be known through comparing and identifying gazes along visual parameters. The comparing, identifying gaze and the decontextualised visualization of 'nature' were rendered universal by the erasure of the positionality from which the knowledge had emerged. Or rather, this was an attempt at that erasure. 'Learning to see' whiteness remains the challenge at hand.

I depart this text with many questions and doubts. Carrying them onwards into my educational and research practice is key to laying out further how whiteness and ideas of 'nature' were active in images in the object lesson. What lines have continued disguised or openly until today? Which ones have nested in my practices, my body, the idea of subject that I believe(d) myself to be? What lines are interrupted or twisted? A beginning of unlearning to see.

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Games in hand, questions in mind: in the flesh of the impossibility of *About what's there*

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Our workshop "About what's there" produced a text that is an extensive hybridisation of the field notebook, the descriptive memory and the essay, and which reflects the difficulties of working with and against the archive of the creative child and that of arts education. The workshop was carried out in the context of teacher training. It proposed the reactivation and update of pedagogical materials, learning assignments, games and playthings by Elvira Leite, Bruno Munari, the Bauhaus, and Friedrich Froebel. The sensuous aspects and aesthetic features of these items were discussed with students, as they are nurturing ableism, developmentalism, and paternalism, among other colonialities. This writing, which occurred in the middle of the storm and before the conclusion of the workshop, turned out to be a moment of reflection on the achievements, discussions, entropies and other circumstances of the unfolding of the workshop, while also providing a platform for us to critically engage with those materials and to review our own aspirations and difficulties, in view of possible future reactivations of the proposal.

Taken within the impasse of reactivating colonialist materials without reactivating their colonialities, the proposal was eventually met as an impossibility to which the only possible response we envisage – right now – is to look at it as uncertain pedagogy that requires spending time and that asks for the affects of co-dependency in the world.

Important note: this text expresses the view of the workshop proponents on what not to repeat working with and against the archive, and was not fully discussed with all the participants prior to publishing. A version of this text was presented on the June 26th, 2023, during the final seminar of project CREAT_ED. Critiques and suggestions addressing "About what's there" and this text were received from critical friends, students who participated in the workshop, and other seminar attendees. The necessity of activating protocols to enhance respectability and safety in a schoolwork environment, and the availability of more workouts on operative readings on anti-discriminatory practices are part of the list of comments received. We indicate them because we are still processing them and we want to keep them as reminders for our future practice. Working in an impasse also means time request for assimilation and intended constant revision. The following is a revised text due to the feedback received. Nevertheless its topics are open to be discussed in other spaces for which we make it explicit the recommendations received.

Foundational to the formulation of the third line of CREAT_ED, "Spaces and materialities in the making of the creative child", is an appeal that goes beyond knowing how the spaces and materialities were, and still are, used in the production of the creative child. In that line, we are highly motivated to seek modes of reactivating certain materials by paying attention to the different layers that built them historically. Only today are we capable of perceiving them

as problematic and as carrying traits of [[colonialities]], and yet we are not willing to give them up. It is due to their problematic condition that we are committed to reviewing and reworking them.

We proposed a workshop to be carried out in the context of teacher training, seeking to think about reactivating and updating of some of these materials. We organised four kits, each dedicated to one of the following figures: Elvira Leite, Bruno Munari, Bauhaus and Friedrich Froebel. The students were divided into four groups randomly formed [1], and each group was assigned one of the kits. The workshop proposal was the same for every group-kit, and the activity took place under the name "About what's there" [2]. It lasted a whole semester in a Master course of teacher training.

We struggle not to subject ourselves to the naturalisations operated by the archive of the creative child / the archive of arts education, while we regard them as acts of governance, as fields of force of violent effect (Stoler, 2008) with and against which we want to strive. Whether reenacting certain materials as an [[interpolation]] is reinforcing or interrupting such fields of force of violent effect, is a disquiet that remains with us so far.

Our leading question was and still is: "How can we reactivate these materials without arousing their unavoidable violence?"

The text unfolds while a tension line is drawn to emphasise two conflicting forces whose confrontation triggers the onset of crisis mode. On the one hand, we want these materials to be re-thought, re-drawn, and re-activated as and for non-violent pedagogical practices. On the other

1 The methlodogy to form the groups was discussed and the class agreed to follow the random proposal provided by a virtual platform.

2 The name of the workshop in Portuguese is 'Sobre aquilo que lá está', which translates into English as "About what's there", with the subheading 'Noticing the discursiveness existing in arts education games/materials/proposals to rethink everyday practices'.

hand, we are urged to experiment with the timeline of the project (where we got the materials from) with teachers in training, and that is where we clash with the unsolvable impossibility of combining our willingness to use the materials with the total fulfilment of our critical views on them; it's a double bind (Spivak, 2012): impossible, yet necessary (Spivak, 1988).

This writing allows us to acknowledge the troubled waters we have voluntarily got ourselves into. Here we generally speak of the difficulties of the process, and yet two observations seem worth highlighting. One of these concerns the real pitfalls that operate in this context and that reveal themselves at every attempt to solve the violences. In the final parts of this text, we will reveal a few of these as *tricky traps* found during the workshop. The other relevant observation is about the state of helplessness that follows the realisation of those pitfalls. The workshop made us ask: what shall we do the next morning, in the aftermath of this simultaneous empowering and powerless mood that overtook everyone? And for us it is a vital issue, since we have teachers and future teachers as interlocutors who are now hesitantly stepping through the door of the classroom to communicate something.

Without further ado, and emboldened by Judith Butler, let us dive into troubled waters to set the tone for the text: in the time ahead, our efforts contend to trouble the consensual assumption that one should stay out of trouble. Our position is to demand the necessary time *to spend with* the perceived problematic materials ascertaining "what's there".

Making trouble with the creative child archive gets us into trouble by staying in it sets the tone and anticipates one of the major problems found in the development of the workshop, one that is specific to the school context: the students in professionalization do not stay in and with the problem; they yearn to solve the problem.

The effect of boundary, fixity and surface – the materialisation of our hopes and fears, decolonial ethical constraints, hunches, were affected by precisely the materials whose uses we have chosen to critically address. It was extremely important to return to the physicality of the materials, and to observe and consider their shapes, their volumes, the gestures that could interfere with their surfaces and cause fissures in order to act upon them. Working on this layer of material effects during "About what's there" sessions, these material effects were haunted by the empire's phantom of separating meaning and context. This discursive boundary is embodied in patterns of talking, of proposing, of solving, of doing, of seeing, made visible through the specific circumstances of the school apparatus. The role of the learner determines that many rash attempts at critical discourse often fall into a harmless (i.e., inconsequent) repetition of ideas. The more they are repeated without furthering the content, the more they become superficial, ornamental and empty of any effective criticality. The subjectivation effects and unequal distribution of power contained in, and made possible by, categories such as 'white', male, hetero, able, classist, and so on, is likely to be too-often cited and almost

converted into a spiel, becoming the caption for every debated instance. The unbearable discomfort with this repetition can be depicted with accuracy in "and so on", for it is symptomatic of an ongoing neutralising process that demands more rigour. In fact, a successful critique owes more to the persuasive and delicate economy of means of expression than to wearing people out by means of expressive persistence.

Following this, we have realised that we were referring too often to the four materials kits selected as owning potential violences that we would want to prevent in our practices as educators who try to follow anti-discriminatory practices. We assumed the violences were materialised, even though we also assumed they were not evident to the colonised gaze of the class – as, in fact, they are not that evident to us anyway, nor to most of our white peers. Apart from the patronising imbalance created by our pedagogical framing, the very idea of evidence (as tangibility) is something that Stoler's ethnographic approach to the archive would readily seek to dismantle. In place of the evidence of whiteness, of maleness, of classism, of ableism, *and so on*, performed by those materials, we, as researchers of the project and as proponents with vivid subjective intuitions, would have expected the attention to be focused on the understanding of how aesthetics persuades specific ways of being and of being perceived? From there, we now are inclined to think that the critique could be more informed, more effective, mostly because it is more economical and less probative.

Given the intention of denaturalisation of the colonised gaze that underlies the proposal of the workshop, we

cannot but regard our roles as proponents, as problem-makers. It happened to us, it is happening to us, this continuum and this disquieting impression that we cannot help but reaffirm our positions of privilege even when we do not want to. Despite this fact, a forceful first step when performing the critique is to problematise what seems naturally evident, or obviously right, or comfortably unproblematic.

People in schools are tendentially problem-solvers. Teaching is, in general, directed towards resolving impasses and overcoming obstacles. Munari was fond of method and of design methodology – like the green rice recipe (from P- Problem to S - Solution) – for solving everyday and everyone's problems in the most effective way. The Portuguese curriculum reflects this urge not to waste time. "Problem solving" is a central skill of the "Profile of Students Leaving Compulsory Education" (2017)[3], where it links with "reasoning"; the Arts National Plan reveals an aesthetic relation to problem resolution by stating that "Being prepared to solve problems requires being imaginatively developed. (…)" (2019). In support for this rationality in the arts education curriculum there is the methodology of working through projects that Elvira Leite developed in the late 1980s to early 1990s and which has permeated much of the practice-based work in visual arts teaching in elementary and secondary school. *Trabalho de Projecto* (1989 and 1990) by Elvira Leite, Manuela Malpique and Milice Ribeiro dos Santos are books which explicitly teach "Learning through problem-centred projects"[4]. One immediate result of that centralisation of problems is that the student feels the need to be quick to find the path to

3 Our translation from the Portuguese of *Perfil do Aluno à Saída da Escolaridade Obrigatória* (2017).

4 These books were written within the scope of progressive education in the first twenty years after the start of Portugal's democratic regime. Elvira Leite and Milice Ribeiro dos Santos subscribe to a position of social constructionism in education. Many examples of projects run by the authors relate to class, fighting classism and social inequalities in the school's foreground; and in a practice of anti-racist and anti-colonial suspensions of practices when different contexts made the authors rethink their practices (see e.g., East Timor roadmap text by Leite and

Santos on these books). Reading and re-using these texts makes us demand the rethinking of other possibilities of education beyond constructionism. See pls. Kallio-Tavin, Mira (2013). Encountering the Self, Other and Third: Researching the Crossroads of Art Pedagogy, Levinasian Ethics and Disability Studies. Aalto University publication series. Doctoral dissertations.

5 Most of these questions are considerations in another research project, an older relative of CREAT_ ED named ART_ED ARCHIVE (also hosted at LabEA - Laboratory of Arts Education).

right answer. After all, it is not totally surprising that the participants attending the workshop, who are teachers in training, mimic the same logic and focus on devising a satisfying solution to the given assignment. Why would they want to get into trouble when every plea is to stay out of it? Troubled waters are exactly what the school tells students to avoid. It's not about facing trouble and finding ways of dealing with it, but rather about avoidance, hurry and success. "About what's there" was intended as an invitation to stay afloat for the time needed to get to know the assigned materials.

About what's there
(the backgrounds of)

In order to structure the workshop, we first resorted to Bruno Munari and Elvira Leite's productions, whose proximities we initially discussed during the project's Kick Off Meeting, held in March 2022. Leite and Munari's productions generally exhibit a common aesthetic ground of visual elements of basic design language. This circumstance is not exclusive to the two of them, but most likely the attribute of an extensive class of art teachers and educators circumscribed by the same geographies and European surroundings, both present and past. In this way, simple geometric shapes, flat colours, synthetic pictorial elements and abstraction are all common parameters in Leite's and Munari's visual games and the ludic and learning materials that were subsequently devised.

That first approach in March 2022 was the reason to further explore a series of questions we carried over from previous debates 5, and which remained latent in

the conception of the present workshop "About what's there": When and why did these visual games become a tool for educators and art educators? What purposes and effects are intended to be achieved when we play a game? How can these materials be critically reactivated after acknowledging the historical forces that intersect them? With which lenses? How could people separated by time and space share the same visual grammars? Why is there a particular focus on certain visual grammars that are still in current practice?

This idea of a current practice in which we identify aesthetic and rhetorical similarities is informed by empirical experience and our knowledge of relatable projects in the areas of education and cultural mediation. At the same time, we are aware that Elvira Leite and Bruno Munari were not the first or the only two artist-educators using such a grammar and vocabulary. The Bauhaus, the German art school of the first half of the 20th century, and its Vorkurs are said to be the founders of this everlasting idea of the *design basics* operated in its mandatory preliminary courses – in particular that held by Johannes Itten. Neither Munari nor Leite attended the Bauhaus; yet, this school's teachings, sometimes circulating as axioms, are well disseminated and often received as unquestionable truths. Kandinsky's book *Point and Line to Plane* (1926) is a confirmation of such aspirations, while his *Curso da Bauhaus* (1975) is where he disclosed his didactic considerations more extensively.

To be sure, the Bauhaus was not the birthplace of the basic elements of design, but perhaps the place to process their normalisation and professionalisation. Still, in terms of

their emergence and appearance, we can go even further back. Within the scope of children's education, we find Friedrich Froebel in the first half of the 19th century placing similar visuality in his *Gifts*. It is noteworthy that many Bauhaus teachers and modernist artists had contact with Froebelian education in their childhood, where abstraction and geometric representations had a definite impact. It is these positive effects of the materials, which *Inventing Kindergarten* (Brosterman, 1999) extensively attests, that our workshop is concerned with.

Another positive aspect on which we focus our interest is how naturalised aesthetic and discursive fundamentals convey the normalisation of what we could call *a good life* [[see Thomas Popkewitz's text *Indigenous Foreigner, Travelling Libraries and Settlements* in this publication]]. We connect the concept of a *good life* with the epistemic violences conveyed in the archive. As Popkewitz points out, this sense of well-being is part of a larger modernist project within which we choose to focus on the reach of arts education activities, only to realise that the Bauhaus and its followers had an outstanding impact on the visual reinforcement of the universalizing narrative of the *good life* through its mechanics of perfecting, from which "Change becomes an externality of principles for "seeing", thinking, feeling, and acting". Ultimately, this means designers and art educators like Munari and Leite teach people how to live the *good life*, or how to achieve success and therefore happiness. What is at stake is not a matter of democratic expression and consensuality on the good terms – of communicating ideas, seeing things, living together, etc. – but much more how certain educational

and civilising technologies are effective towards the configuration of individual desire. Our argument is that the naturalised aesthetics of the materials we moved from our timeline into the workshop are contributing to the normalisation of the *good life* and act as vehicles in the "pathways and highways in the present for that individual and collective well-being" [[see Thomas Popkewitz's text *Indigenous Foreigner, Travelling Libraries and Settlements* in this publication]].

As previously mentioned, in this third line of CREAT_ED, materials appear not just as interpretative productions of a certain context, but also as objects of potential re-en-actment. Thus, we decided to focus on these four figures, Bruno Munari, Elvira Leite, Bauhaus and Friedrich Froebel, given that we had detected a propositional contiguity with regard to thinking in art, design, education and childhood. However, thinking about the possibility of actualizing and reactivating some of their materials does not happen without our wondering what it means to re-use and re-present the very same basic design elements over and over again in the motion of a project with decolonial intentions. Or, in other words, what was being said and what was being excluded through the endless reproduction of this idea of a neutral, consensual and universal basic design language, and what was our part in it through the intended actualisation of materials? We wanted to go beyond psychological readings of design principles, and look at it as an imperialistic project. While trying to unpack the imperial capitalist deterritorialisation effects (Hardt & Negri, 2000) on the grammars used in arts education practices, the underlying questions that arise from here

6 These questions were part of another related workshop proposed in the Doctoral Programme in Arts Education of the Faculty of Fine Arts of University of Porto in December 2022 by Catarina Almeida, Samuel Guimarães and Melina Schauermann.

7 For glamour and grammar etymology [Last time accessed online: https://www. merriam-webster. com/words-at-play/ the-history-of-glamour] [21.05.2023].

are: How is formalism not just about forms, not just about content, but always about legitimation and exclusion of knowledge production and possibilities of subjectivities? How are patterns and visual grammars political, and how does the universal demand of the imperial apex of western design flatten non-western histories and cultures through its categorisations? (Khanchandani & Jacob, 2019). How is this issue of design basics related to developmental perspectives of education, directly owing to the didactics of traditional art academies where students had, and have, to master basic visual languages (drawing, painting, sculpture, design, and dance too) prior to using them (to produce new things)? **6**

These are like beacon questions that will bring us to affectivity, agency, vulnerability, corporeity, embodiment, co-dependency, sweat, stains and marks.

We try to expose the effects of grammar / glamour **7** coin tossing when focusing on formalist approaches. We adopt this state of performative contradiction not as an emergency exit, but as a floating state of mind that wistfully enables for us the *impossible to solve yet necessary to keep* rearranging desires (Spivak, 2012) in counterpoint to hegemonic canons.

Between seduction and scepticism, lines of force are drawn that strain our position towards the materials selected. We do not want to erase them but rather to keep them alive through their re-activations and by learning how to deal with the contradictions they carry with them. These contradictory forces are made visible again with Elvira Leite: on the one hand *Jogos Visuais* (Visual Games) and a few other pedagogical works by Leite are not sufficiently

inscribed in Portuguese arts education history; on the other hand, it is an ethical imperative to re-signify heritages. But it is not enough to enact the re-signification imperative. How does one re-signify? The void/absence of women in Portuguese arts education history (practitioners, writers about education, facilitators, activists) is historical evidence. In any case, this inscription is done with the conviction that we cannot [[play]] these visual games in a *form follows function* routine [8], closing our eyes to the violences they can operate in their constituency. We propose staying with them as a deck of cards that we try to shuffle with decolonial approaches; a citational desire to counterfeit their reuses.

The "About what's there" workshop appears as an attempt to migrate this discussion and questions that we have been rehearsing in the scope of our research team to the context of visual arts teacher training. With games in hand and many questions in mind, we started an uncertain journey with a group of students enrolled in teacher training, during weekly meetings in the second semester of the 2022/2023 academic year. The beginning of the workshop was preceded by two preparatory sessions, followed by the presentation of the workshop proposal and the introduction of the kits of materials that we had previously prepared about each of the four entries we selected – Bruno Munari, Elvira Leite, Bauhaus and Friedrich Froebel. Each kit was assigned to one of the four work groups formed among the students. The workshop began. These were the actions that marked our entry into an abiding *cul-de-sac*, a dead end.

[8] Two of the fundamentals of the optimisation of the visual experience of the citizen are *less is more* and *form follows function*. Even though they are not new, they were so effectively assimilated at the beginning of the 20th century by professionals, that even the common citizen has naturalised these commandments end eventually feels that ornament is crime (or a waste of money, or evidence of bad taste) (adapted from Adolf Loos's *Ornament and Crime*, 1906), largely choosing Nordic Ikea pragmatism over past English naturalism or any other vernacular expression.

9 As a sideline story, we were interested in the sense of commitment of Frank Lloyd Wright's mother regarding the education of her child. About this, Brosterman (1997, p. 10) tells that: "Convinced that the primary, structurally unified kindergarten activities would engage her own son and help him develop the skills of a great architect – as she had intended even before his birth – she excitedly returned to Boston and purchased for nine-year-old Frank a set of educational toys known at the time as Occupation Material for the kindergarten, or Froebel gifts, and also enrolled in a weekly training course that would enable her to teach the use of the gifts in the contemplative sanctum of her own home". Additional to future education,

Again, the materials: Why these materials?

While declaring our love for these games, we also come up with another reason for choosing them. We knew that their transfer to the context of (visual) arts teacher training required establishing *relationships of need*. So why did it become *necessary* for us to introduce materials from Elvira Leite, Bruno Munari, Bauhaus and Friedrich Froebel in our work with Master's students? The quest for non-violent, anti-discriminatory pedagogies demands a *necessary* review of what our affectivity has rendered tendentially unproblematic. We caress these figures, and that's what makes the *necessity* of revision so urgent.

The entry of Friedrich Froebel, perhaps the least known of the four figures among the Master's students, corroborates the structural developmentalism that is installed in the schooling process of children and young people. Froebel appears in the set of four figures as the preamble, as the childhood of the Bauhaus and as the seed of modernism in art, the early contact with his *Gifts* and *Occupations* and other pedagogical games being pointed out as a contributing origin of modernist aesthetics. Le Corbusier, Buckminster Fuller and Frank Lloyd Wright are some of the leading modernist architects who experienced kindergarten in their childhood. The latter enjoyed a domestic version of Froebelian paraphernalia. With his mother, Anna Wright, who became a kindergarten educator, this training is likely to have been enthusiastic.**9**

As Norman Brosterman assures us, in his "Inventing Kindergarten" (1997), Lloyd Wright is far from being

the only example of this, since many other figures of Modernism in the arts began their education via some contact with Froebel's proposals: "During the system's heyday – roughly the half-century before World War I – Frank Lloyd Wright was merely one of *millions* of people, including most of the so-called 'form givers' of the modern era, who were indoctrinated, in effect programmed, by the spiritual geometry of the early kindergarten". Brosterman mentions Paul Klee, Walter Gropius, Josef Albers, Johannes Itten, Wassily Kandinsky, among others, and thus traces the indelible relationship between Froebel's vision and practices and Modernist achievement in its most significant school of art and design, the German Bauhaus.[10] We incorporated the Bauhaus into the workshop materials, driven by the ambivalence with which we look at it and which always seems pertinent to us to recover every time. From History of Art remains the scholarly memory of a celebratory phenomenon, full of imaginative examples, creative practices and good practices for triggering creativity, irreproachable personalities, a seductive aura, and an unquestionable – and unquestioned – ballast for the present, which for now it seems urgent to reconsider. In this respect, Bruno Munari also shares the same dissonant vision regarding the *be* and the *could be* of creativity. On the one hand, the child must be freed from all constraints in order to aspire to a free and creative future society; and, on the other hand, the very child of that future society projected by the Italian must have her creativity stimulated.

And Munari gives indications about the appropriate ways of doing so, many of them gathered in his book *Fantasia*

which works as a technology of promising, Anna Wright embodies the feminisation of the role of tutoring through the domesticity enabled by the commercialisation of Froebel's *Gifts*. In these terms, home education was given a meaning of high and middle-class attributes.

10 Norman Brosterman personalises the relationship between the exposure to the Gifts and the development of particular aesthetic languages of Modernist artists, especially resulting in simplicity, abstraction, and non-objective tendencies. The case of Georges Braque and Cubism is particularly insightful, for it is supported by the idea of translating perceived reality through "making pictures

(1977/2015), where, not without avoiding comparison between children and monkeys (p. 32), he draws attention to the importance of memorising data, so that new relationships can be created between them in order to finally start to solve problems – where creativity emerges, in Munari, as the construction of new relationships between things already known. In addition to condemning the most common school proposals that undermine creativity, including "getting children to do, for example, a drawing on a certain topic, the same for everyone, with felt-tip pens or watercolours" (p. 124) the author is determined to defend the role of [[play]] in "expanding knowledge and memorising data" (Munari, 1977/2015, p. 37), with the consequent stimulation of creativity. It is also through games that children can "(...) learn something new, master new techniques, understand the rules of visual language. Any drawing contains a message, but if this is not done through the rules of the visual language, the message is not received. And so, there is no visual communication, there is no communication" (p. 125) [11].

The same concern with defining visual categories capable of translating the world and the ways of seeing it (and, therefore, representing it) is demonstrated by Elvira Leite. In the presentation of the *Visual Games* (1974) collection conceived by Elvira with Manuela Malpique, the following is written: "VISUAL GAMES propose a time of reflection on the visual messages that, at all times, impress us. Based on everyday learning, they offer stimuli that, through the selection and association of images, lead to the discovery of the elements that constitute and make the visual message visible: texture, shape, structure, module, movement, play,

discover, see, associate, create". At a certain point, there seems to be no other frame of reference for accessing images or for producing them other than considering these universalizing parameters. Long converted into syllabus contents, they were already present in Froebel's doctrine, and were repeated in the pedagogical practices of the Bauhaus Basic Course, among Johannes Itten (texture, shape, movement, so often expressed in the theory of contrasts), Lazlo Moholy-Nagy and Josef Albers (discovery and association with the former, module and structure with the latter).

Calling into question the narratives that want to impose on us the successes of these four figures as unique ways of seeing them, and whose brilliance covers more problematic and equally significant processes in the definition of the creative subject, we feel encouraged by the idea that we could be, here and there, working against the archive of arts education. If the [[archive]] as a concept is what has been outlining the boundaries of what is possible and what is not possible through the operativity of its materials, then by reusing or transforming these, we would expect to disturb the archival course. Would the realm of impossibilities that are left out of the archive eventually find their way into the archive? We do not want to switch off the archive (nor could we do so), but instead we want to renegotiate its boundaries and to play with what is neither told nor said, with what it disbelieves. The reactivation of materials could be the operation that accomplishes our frame of mind, if only these kinds of actions wouldn't themselves be crossed by an impossibility – one we have found to be flesh and bones.

figure 1a Elvira Leite and Manuela Malpique, Posições, Medidas 1, Palavra imagem, Forma 1, 1974. Image: Amanda Midori.
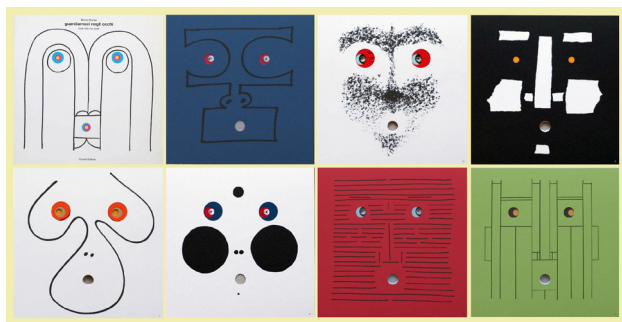
figure 2a Bruno Munari, Look into my eyes ("Guardiamoci negli occhi") 1969. Retrieved from https://visao.sapo.pt/visaose7e/sair/2016-03-11-peque-nos-grandes-leitores-vao--as-gaivotas/

figure 1b Elvira Leite and Manuela Malpique, Contrastes, 1974. Image: Amanda Midori and Pedro Bastos.

figure 2b Bruno Munari and Giovanni Belgrano, Images of Reality ("Immagini Della Realtà"), 1976. Retrieved from https://moonpicnic.com/product/images-of-reality-immagini-della-realta/

figure 1c Elvira Leite and Manuela Malpique, Trisósceles and Ritmos 3, 1974. Image: Amanda Midori.

figure 3a Friedrich Froebel, Gift 8 Rings, first half of 19th century. Retrieved from https://www.froebelnetwork.org.uk/store/product/

figure 3b Friedrich Froebel, Gift 7 Parquetry Tablets, first half of 19th century. Retrieved from https://www.publicbooks.org/back-to--kindergartena-modest-proposal-for-a--collegeof-the-future/
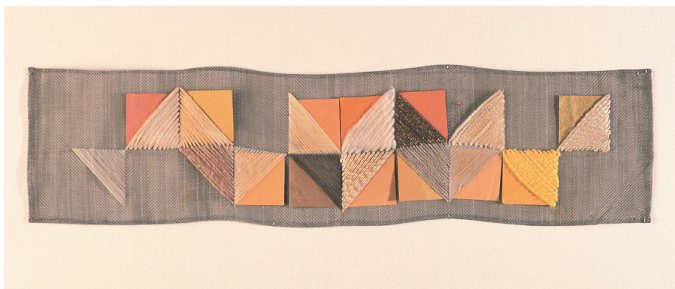
figure 4 Otti Berger, Moholy-Nagy's preliminary course, Touching board with threads, 1928. Image: Bauhaus-Archiv, Berlin / Atelier Schneider, retrieved from https://www.bauhaus.de/en/sammlung/6299_sammlung_online/6321_textil/

12 We refer to Fernanda Eugénio and Marta Lança (n/a) and their thoughts on repair: "everything is irreparable and I work with repair. Repairing is, at the same time, impossible and essential, precisely for this reason. The impossibility, the fact that repairs are always late, because things are irreversible, unpayable, irremediable, damaged, unpredictable and sometimes inevitable (or they are irreparable perhaps because they were avoidable). All this keeps happening and therefore any act of reparation starts out as late and insufficient. That is why it is absolutely essential to do it, even though it is impossible to do it". – This is our free translation from the Portuguese.

In fact, as we tried to point out in this text and in conversations with students during the workshop, a closer look at some materials from the project timeline, and in particular those that we ended up selecting, reveals a set of colonialities that were already there **12**. Of these indications, in some cases quite evident, there are several which are shared by more than one figure. Even so, note the pedagogical developmentalism of Froebel and the Bauhaus Basic Course, the *good life* subtext of Leite's and Munari's proposals, or the latter's classism. And, despite that, how can we explain that we still want to reconcile our affectivity for these works with the restorative will of their historical re-inscription?

Reactivation

"Is it the fate of the reenactment to become an image? And are such representations just part of a spectacle that breeds passivity, or can they in some sense be performative, active?" (Liitticken, 2005)

We start from the explicit desire to reactivate the selected materials, facing the problems raised by the colonialities that contextualise them in arts education, and not to give in to the moderating impetus to correct the affection we feel for them.
We would like to reconsider the term *reactivation*, since we realised, in the reflections arising from the workshop, that it suggests a conservatism in the archive that does not interest us. *Reactivation* is very close to the widespread historical reactivation that cultural tourism has

promoted in recent times. These commercial phenomena of recreations, live paintings and living museums explore practices of immersion and interactivity, seeking to repeatedly simulate experiences from the past, naturalising them in the present, and valuing parameters such as authenticity, temporal linearity and the entertainment that we believe to be at the antipodes of our practices in arts education and within the grid of questioning and revision proposed by CREAT_ED. It is enough to look at cultural mediation programmes or at the vocabulary of programming and artistic curatorship to confirm that the words activation or reactivation have already been totally captured, and have lost their possible edge of incision in the artifice that could contain re-use, re-doing. We consider, as a replacement and on an experimental basis, the idea of *updating* to counteract the fixation of history with the possibility of a re-writing in a research process with decolonial lenses located in the times we are living in. So, the question will be: How does one update these materials in order to develop anti-discriminatory pedagogical practices with them today? Perhaps that should have been our question from the beginning.

Our desire for reactivation is based on a terrain of multiple confluences. A new pedagogical materialism emerges from it, which not only considers materials as agents, but also seeks to counteract the naturalised split between subject and matter, thus reviving the vital role of the body in the interactions envisaged. To retrieve Froebel's *Gifts*, or Elvira Leite's *Visual Games* from the creative child's archive is, in this way, to recognise in the body the pivot that mediates the creative object and the creative mind.

It is also to foresee in this body the possibility of exploring other relationships between theory and practice, between the political and the sensitive, as resistance to the hegemonic discourses that predetermine the good uses and expectations of learning around pedagogical materials. Our frame of mind was that these explorations would promote [[interpolations]] in the archive rather than an enhancement of it.

The focus that our reactivation proposal seeks to place on the body brings in an awareness of the proximity with which it launches into a sensory education that, moreover, is fed by all the figures mobilised in the workshop. During the sessions with the groups, we saw that the [[education of the senses]] has been presented as a consolation to solve curricular weaknesses and guide interventions in the teaching-learning dynamics in the visual arts, under the stamp of creativity. Acquiring sometimes reactionary contours, these proposals respond to a prevailing ocularcentrism, relying on sensory solutions to fill perceived absences. It is clear that the perception of absences is seen as the beginning of a pedagogical mission, with students becoming increasingly aware of the uneven bias of the Visual Education curriculum towards the sense of sight. The question rests on whether this mission is recognised as being entangled in the ableist idealisation of the child-as-adult-to-come, who should not leave any of their senses undeveloped, and where there is no place for bodies with abnormal capacities to receive impressions from the world. The question also rests on whether one can identify the civilising appetite underlying the sensorial *démarches* of Itten's theory

of contrasts, Moholy-Nagy's textured boards, Munari's "Illegible Books" and "Laboratories for Children" activities or Leite's "Visual Games" or game "Contrast".

And it is then that we unexpectedly choke on an overwhelming impasse that imposes itself on us as workshop proposers and project researchers: What do we do with this knowledge when working with students? What do we expect students to do with this knowledge? What can students do once they have acquired this knowledge? This *about what's there* impels us, together with Sara Ahmed, to insist on sharing: what can be the ripple effect of emotions? They move sideways, through *sticky* associations between signs, figures and objects, as well as backwards; repression always leaves its trace in the present – hence *what remains* is also linked to the *absent presence* of historicity (Ahmed, 2004).

<div align="right">

This is writing that happens in the middle of the storm

</div>

How could the criticism of materials *happen*, then, rather than *be said*?

The proposal for a critique asked for it to happen with the materials, that is, using them, or rather *reusing them*. From the outset it seemed important to us that these materials could be experienced, and that *time could be spent with them*. If in the case of Froebel's *Gifts* and *Occupations* this was not possible since we do not have any copies that we could include in the kits we prepared, with Bruno Munari's and Elvira Leite's materials, the contact was provided. In the case of Bauhaus, we shared some exercises practised

in the Vorkurs that could easily be replicated. For Froebel, we collected images, descriptions, and we settled on the conviction that familiarity with everything inside the category of *building blocks* would refer to part of the dimensions of the Froebelian thesis that we wanted to aim for.

The instigation of playing a game like Elvira Leite's *Contrastes* (Contrasts, see Fig. 1b), for example, now called for an understanding of its implications in a supra-individual range. It would no longer be just about encouraging subjects to discover endless examples of these formal relationships in the world, which Bruno Munari refers to as "an ancient rule of visual communication", and "by which the proximity of two forms or colours of opposite nature values and intensifies your communication" (Munari cit. in Leite & Ginoulhiac, 2018). Therefore, we were not committed to the game experience being directed towards the improvement of reading and visual communication abilities based on mastering the technology of simultaneous contrasts. What the game really started to put into play, in our eyes, was the programming of a responsive subject capable of synthesising the complexity of the world into binary relationships between X and the opposite of X. As a creative exercise, this playing with contrasts plans a simplifying subject, with essentializing language and essentializing ways of perceiving the environment, who does not shy away from leaving out everything that does not fit into the two extremes of the innumerable categories in which she sees the world. At first, the person who is neither quite *this* nor quite *that* seems to become unrepresentable, and soon after

that we understand that it is precisely her absence that affirms her supposedly neutral character. And, on the other hand, it is the people who are almost too *this* and the people who are almost too *that* who indicate the limits of admissibility of *this category* (e.g., body volumes, skin tones, and others), having as reference the spectrum of the *normal* body, with fluctuating parameterisation, and which is not conveniently fixed and thus can only be alluded to but never replicated.

It is precisely the impossibility of replicating that which does not exist, and therefore remains in the field of idealisation, that marks the beginning of the violences against all those represented who do not fit within the scale of categorisations that were launched.

In one recent workshop session, one of the groups wanted to share with the other participants an exercise they had developed in the Visual Education school subject with elementary school students from a public school. After discussing the hegemony of the visual in the teaching of visual arts (and considering the appropriate redundancies and nominal truisms of wanting to question the predominance of the visual within Visual Arts Education), they considered that the remaining senses were being underestimated in this curricular area, and that the group's activity could focus on this absence. The proposal they prepared, which came in the wake of Munari's *Tactile Workshops* (1977) and of the importance he gave to sensory education, was intended to expose Visual Education students to a set of pre-recorded everyday sounds and to ask them to represent these sounds on a sheet of paper using different available materials, some

said to be conventional, others perceived as unusual. The prime reason behind their proposal was, in short, "why not promote other forms of relationships with the world in addition to the visual, and so stimulate the other senses?". In the pedagogical relationship and within a teaching exercise, it is difficult to argue that an apparently innocuous starting point well reflects the separation between the normality of the five functional senses and the abnormality of the reverse. Simultaneously, the relatable premise contains colonialities of arts education, namely the one that gives continuity to the developmentalist narrative. This traces a formative path for the child that begins her relationship with [[nature]], in a state still close to the [['primitive']] and to [[innocence]] that distances itself from it as the didactic effort progressively departs from the sensorial layer and deepens in the mental work. The naturalisation of these colonialities is so efficient that they become invisible, and the work of criticism becomes exceedingly demanding for everyone involved in the workshop.

However, the burden (which is on us, as teachers and/or workshop proposers) of carrying out this denaturalizing task is also in the recognition that we live in ocularcentrism, and that other sensorial forms of perception of the world can actually relativise this ocularcentrism that finally explodes the feeling of vulnerability in the face of the impasse posed. What are we to do *when we see ourselves* between a rock and a hard place?

It seems important to point out that the school context of this workshop adds a number of other circumstantial problems to the sense of ontological impossibility. These are the *tricky traps* that were brought to our attention

as the work unfolded after our proposal was launched. The reactivations within the school apparatus also bring forth these repetitive tendencies and responses, which seem to reflect and feed the possibilities of the archive more than offering glimpses into ways of interrupting it.

The monographic temptation
(or the comfort of an experienced method)

After the presentation of the workshop proposal, the initial work of the groups took place largely on the basis of familiarisation with what was shown and made available. As proposers we imagined that this familiarisation would focus on observing, appreciating, talking about, experimenting, in short, *spending time with* the materials that comprised the kits; instead it was redirected towards a context outside the kits. It is true that we didn't restrict the search on *what's there* and that we always invited to look for other things and other information outside the initial sets, in order to better understand the kits themselves. After all, it is well established that each kit is a mere arbitrary cut that, although it excludes other materials, is in permanent dialogue with that exteriority, as based on the denominator of a common archive. However, the exercise of looking outside turned into collecting other materials to expand the initial set. If the sets were quite extensive to start with, in some cases they just grew larger and larger. At that pace, the participants' gazes were decreasingly directed towards *what's there*, and more predisposed to look around for clues in the hope of finding unblockers and pieces capable of deciphering what, like us, they had in their hands.

By that time, we considered that in future reactivations we would propose we could include in the sets a script of questions aimed at analysing *what's there* in order to keep the focus. At some point, the initial materials were already far away, perhaps covered by all the other items that came afterwards to reveal them. We thought to be dealing with a tendency to look for a solution, any conciliatory proposal whatsoever, a quick departure from the initial proposal. When it happens it seems that it is important not to stop the machine but to continue, in an exercise of continuous *tabula rasa*, following the logic of the permanent crisis in the modern, in which it is necessary to always respond with novelty to the obsolete. One of the groups began lining the corner of the room with their collection of found materials, and a patchwork of clippings and printed sheets quickly took over the walls. Important dates, prominent figures, a handwritten list noting the importance of the unknown women designers of the same school, images of objects, fragments of speeches and printed news, all this occupied most of this growing body. However, the accumulation of information, although useful and necessary on an individual scale, *was not making anything happen* in terms of collective work. The monographic inclination towards who, where and when is a recurrent response in the academic context, and corresponds to common ways of working in the schooling process. It is regarded as a solution that sometimes mirrors the role of the learner, sometimes reflects the school's all-encompassing ambition of accumulating relevant (or legitimate) information on the subjects it deems valid. It is a method that submits itself to the authority that the

school has to assert that there is a whole, a totality, that can be known about something. This totality works as an inference that automatically eliminates everything that crosses the boundaries of that whole. At the level of postgraduate studies students have already experienced countless times these monographic requests, and it is then plausible that the method appears once more as an available solution.

This monographic inclination almost always dictated that a very short time was spent *with* the materials and, therefore, little attention was paid to *what's there*. Other group suspended the assigned *Visual Games* to find comfort elsewhere. They started from the little red book with the yellow hand (Forma 1, 1974, see Fig. 1a) to arrive at Bruno Munari's *Supplement to the Italian Dictionary* (1963), and from there got involved in the conception of a proposal for the gestures of a hypothetical class. In addition to the fact that the link that the new conceptions maintained with the initial material is for the most part an aesthetical allusion, Leite and Malpique's manifest and latent concerns reverberate restrainedly in the formulated *gestural* proposal. Here, we think that issues related to visual communication and universalizing language acquired contours much closer to those of an externalisation drawing exercise made possible through the tool of art, overlapping, for instance, the questioning of the authority of design in the imposition of its visual grammars and translatability relations.

Other group opted to distance their response from all aspects that could make their proposal a *commentary*, in the Foucauldian way, on a primary text. That is, one in

13 The term "de-munarise" was frequently used by the Munari group, pointing to a need for distancing in view of the embeddedness of Munari's work(s) in Visual Education in particular, and in Visual Arts Education in general.

which it would be possible to identify, despite all deliberate oppositions, that the resulting proposal had a recognizable principle in the production of the assigned kit. This distancing ends up leading to the removal of the initial materials, and, as we see it, prevents the preparation of an arena where they could be reviewed and discussed; this hits our proposition in a sensitive point: in our assumed affectivity towards the selected materials, and our wish to keep them in the present, even if updated.

Many participants were involved in notable biographical and monographic efforts, spanning, for instance, Munari's extensive career as an artist, designer and educator, and falling seduced by found works and new aspects learned. Perhaps because they realised that the strategy *was not making anything happen* as far as the proposition was concerned, they felt that they needed to *de-munarise themselves* **13**, that is, to look more critically at Munari's work and break the spell: How can one stop flipping the coin between grammar and glamour?

But then, how can one make the research process performative, capable of causing dislocations within the group? In any case, the impression we have is that too short a time was spent observing what was assigned.

A short time was spent talking among colleagues about the materials received, their characteristics and *how* they conveyed specific rationales. The impulse was to solve the exercise quickly, imagining that the answer is very far from the starting point, and that on this path there is no time to lose and the machine cannot stop.

It seems to us, therefore, that there is a necessary relationship between *performing* criticism and *spending time*

understanding the modes of government it intends to address; that is, analysing the materials. How then can one incorporate the critical discourse in the bodies that are played in the reactivation of materials, so that their re-uses make alterity happen?

From here, we are led to review the way in which we posed the problem we presented, knowing that in it and in its preparatory sessions, a very evident feeling of affection combined with the desire for criticism was already expressed on our part. And, perhaps, this fervour precipitated and conditioned subsequent reactions, either of negativity and distancing, or of seduction, often deviating from the sense of criticism from which we started: *not being governed in such a way*, like Michel Foucault. The *such a way* was eventually hard to recap in the proposals outlined in the meantime.

Acknowledgment and Impasse: an afterword as final notes

It is plain to see that this text has become a hybridisation of the field notebook, the descriptive memory and the essay. In the confluence of the diverse formats, and in the duration of the process we went through before, during, and in the aftermath, we are struggling to critically engage with our initial proposal. In parallel, and as an act of self-reflection, we also hope to find auspicious conditions for the reactivation of the exercise in future opportunities.

In the face of what occurred, we are left with an ambivalent feeling of impossibility. Once we accept that our

educational gestures are condemned to exclude, to impose and to distribute the sensible, we are pushed to ponder about a self-inflicted disappearance as educators and privileged persons. The same desire in the affectivity for the materials that, in the beginning, pushed us into this situation, is what prevents the impending obliteration of our professional practices. But we have an obligation to confront ourselves with the question: what about tomorrow? After I brush my teeth and have a shower, what am I going to do, now that I know I am constituted by a series of colonialist narratives? We have to think about the threats that this project creates by truly running roughshod over the people who feel affected by it (not those who imagine themselves in a very different place from the one at which its critique is directed; nor those who seek to resist the project's invitations). Because we also have an obligation to care for each other. And we defend strategic alliances instead of digging a ditch between *me* and *others*. We cannot just look down and say 'now stand up by yourself because I still have a whole queue of people to talk to'. This is not white fragility (DiAngelo, 2018) but an appeal for co-dependency and care in pervasive situations we must be aware of.

We have experienced a dislocation from our initial position, even though we are unsure of where we are settling down for the time being. Perhaps now it is impossible for us to find a safe place as art educators to deal with the spectrum of the creative child; or maybe that safe place is the tricky trap(s) swallowing us back into the archive. We feel like we are in trouble. If only we could trouble this sense of being in trouble from within the academy.

We have not given up the conviction that the exercise of being educators (after all, the context of the "About what is there" workshop is not unimportant) is an exercise in ethics and morals. And that this text, as its continuation, is the exercise of this morality, even if it doesn't want to be. Because the urgency of repairing arts education history is also self-referential: once it becomes emergent for us, we are justified in proposing it to others. In this case, and because it is not irrelevant, we proposed thinking about this urgency to people who are or will soon be teachers. And that is the exact moment when we realise the huge gap separating the construction of the timeline, and the experimentation with the timeline as a school assignment. The operationalisation of ideas in the workshop has spread over their inner problems, the contradictions and the limits of their uses in our educational contexts/ practices. We wonder: Is it a matter of format (workshop)? Is it a duration problem? Is it a site-specificity issue? Or is it contained in the statement of the problem?

At different moments we face a problem of moral authority that seems to traverse the encounter with the CREAT_ED creative child archive and the formulations and impasses of this workshop. It is possible to discover a beginning to its reparative will, and this coincides with the production of the decolonial lenses that we consider necessary to review *what is there*. The historical re-inscription of these materials implies a way of seeing that from *now on* forges a way of doing.

Then what has changed if we recognise ourselves captured in the moral, patronising authoritarianism that our research is lending to our formative practice? What has

changed, after all, if with our efforts we are unable to ensure an anti-discriminatory practice and to interrupt the violence we have perceived in the selected materials? "It is important not to give up," we said about our work as teachers, about the back-and-forth of weekly clashes in the high expectations regarding the workshop. We kept saying that as we realised the *cul-de-sac* in which we found ourselves. But not to give up what? Do not give in to tiredness or safety in the *cul-de-sac*? Do not give up in the face of the impasse we are in, between a rock and a hard place? Do not quit before the impossibility that stands out from the experience of the workshop, from the problems raised by this text, from the CREAT_ED Project? At last, some imaginary friend has written to us: there is a remnant of pedagogical potency in that sense of impossibility. In the flesh of this impossibility – which has happened ever since we 'assignmented/schooled' the events of the timeline, the materials of the working kits, into a statement – the pedagogical action that takes place comes in the form of a question: what can we do, as educators, after we realise the whiteness, classist, and ableist colonialities undermining our chosen materials? A second question: What will we do after we re-identify ourselves as accomplices in these violences?

"What can we do" and "What will we do" now that we *know* are both challenging and disarming, both present and future. The pedagogical potency is held in by the reasoning about the possibilities ahead for our tomorrow morning. Accounting for the threat of failure around the corner does not prevent us from stepping beyond what is acknowledged as possible in the given world, and imagining what is

impossible. Thus, the impossibility in the flesh of undoing while doing the materials, as a theoretical and sensuous *cul-de-sac,* is turned into the operative impossibility that builds on a world in a different way.

The pressing needs of the present time are the lever for the affected to design this different world. The different world is the image of the interrupted archive, it is its double in the mirror. We stand for the conviction that to get such an image requires a more ethical approach in the world; one that rehearses anti-discriminatory and non-violent educational practices (Gaztambide-Fernández, 2011) **14**. These are needed in the present to deal with contemporary circumstances, among which are the relativisation of individualism and the subsequent reconsideration of collectivity; the politics of care and affectability; or the agency of the sensuous body within the accelerated regime of hyperproductivity.

Such pressing needs of the present find their doubles also in the particularity of the school context. They are reshaped as specific procedures unleashed during the development of our proposal; these procedures were voluntarily and involuntarily sampled by us and by the participants in "About what's there". We have named these procedures 'tricky traps', and they have functioned as the discrete structure of this text. The identified tricky traps that we are now ready to summon reinforce what we would like to call into question in the statement of the assignment.

14 The boldness and opportunity of Truth and Sandoval were inspiring for our attempt to recentre the sense of impossibility brought in by the CREAT_ED Project and the "About What's There" workshop in an ethical and collective commitment: "The pressing need for ethical relationships in this present moment, shaped as it is by inherited categories, requires that we imagine beyond the apparent impossibility of pedagogy through the possibility of ethical encounters" (Gaztambide-Fernández, 2011, p. 323).

i) We have already been through this, so now we will only briefly point to the tendency towards *authorship / the mechanics of monography* as a learnt and safe academic gesture that strengthens the archives it addresses. Rather than growing the information bank (capital) by answering who, when, where, it is more important to attentively stay with the materials and ask 'what things does this make happen, and how'? What ways of seeing and doing were imagined to be experienced with these materials we selected, and what alterity are we entitled to imagine through them?

ii) A tendency *to start from scratch*. The *tabula rasa* as a practice of the modern over the past, and the modern praise of (doing) the new. It is precisely in the practice with the colonialist narratives that constitute the archive of arts education that we stumble upon the modernist spirit of vanguard still operating within our classroom. This spirit enables the activation of a series of sub-operations, like the rejection of the master/author/reference to create in original terms (interestingly not hindering the previous *tendency to authorship of the mechanics of monography*, given that it is our impression that the participants were more minded to finding ways of consensuality rather than to argue in opposition), the conformity to hypercriticism (hypercriticism as the orthodoxy of criticism, either as a sort of safe criticism or as the schooled and neutralised gesture of *falsification* (in place of that of

opposition) that repeats the gesture of the powerful and the instructed criticism engrained in the role of the learner. An instance that assembles many of these sub-operations is the path that usually evolves from rejecting the supremacy of the visual. What follows is an undertaking to work on the other senses as if the pursuit of a lost state of purity will be naturally responsive. Body expression is unmistakably a tricky trap in this context, and one that we find in many practices in the field of mediation and arts education practices in frameworks outside of school.

iii) A tendency to the act of speech: *I know better than that, and You should know better and I hope you do so*. How are we to ask questions, because we felt dangerously close to the ostensible glitch in our proposal of 'why to ask questions whose answers we are already aware of?' It became especially uncontrollable when it felt like a shape-matching game: as if we tell the participants about the problems of the materials in advance, yet we expect them to unlearn it and find the violences by themselves. Even if the proposal is 'Do you think that these materials we are assigning to your groups embody the colonialities we're been discussing? Examine this by yourselves!', we are surely closing the door on possible readings – despite the fact that the playful part of us still wishes to be taken by surprise! We should not feel overwhelmed by the confused faces, or by the answers to a statement in need of profound revision. Will we eventually have to reconsider how to manage the necessity of promoting

15 Parque Escolar is the name of the enterprise/business (governed by public law) that from 2007 on renewed numerous school buildings and spaces according to a matrix that homogenised what was perceived as old-fashioned and obsolete structures into modern solutions. Schools from the North to the South of Portugal were transformed, and acquired similarities that removed previous specificities, either from their original states, or customisations brought about by the experience of time. The activity of the Parque Escolar - this is ultimately the name given to the renewed schools - did not escape criticism from education professionals who demanded unmet specificities in their

counter-hegemonic practices without exercising authoritarian canons in the recommendations? This tendency is more frequent than it seems to us in decolonial and anti-discriminatory striving, and therefore it seems to us something to work on in terms of conflict mediation and training for alliances, since consensus ought not to be a condition for agency – and how numbing the search for it sometimes becomes.

iv) and the last tricky trap that appears as an inevitability and as a challenge for the future: we do not know how to avoid representation as a step of our own making. In a Visual Education context and in dealing with the colonial archives of arts education and of the creative child, this realisation is sensitive and especially alarming. How, then, can we represent without discriminating and without inflicting the same or other violences in our practices? How could the workshop or the CREAT_ED Project open up a territory of post-representation? Is this even a way to go on the morning after?

The proposed materials are far from the circumstances that inhabit schools in Portugal. In terms of generalised visual practices, and of appreciating the spaces of the so-called Parque Escolar **15**, they make us realise how modern we are in taste and in our gestures: in the desire to organise the classrooms in a different way; in the desire to remove the posters with faded collages, Disney photocopies to colour and paint, and images of chestnuts for autumn festivities from the drawing folders or toilet doors with pink hats and blue caps.

And from here there seemed to be another gap between the problems of CREAT_ED and its practical operationalisation in workshops for visual education teachers and postgraduate students in arts education. And here, the ambivalences in this making are confronted. The recognition of the problems, contradictions and limitations of their uses in our contexts/practices created impasses. The materials seduce people, and the resistance to universalism, developmentalism, [[ableism]], adultism, crosses the bodies of those who enunciate (teachers and educators) and those who receive (the students who are or will be teachers) in the repetitions that we perform when we buy notebook x or y or a pen to take notes for the classes we are preparing or observing. The embodied knowledge that we have in the use of these practices make us and have made us sticky **16**. Ways of handling papers, colours or formats do not disappear in the face of the clear explanation of the problems that their repeated uses cause. It seems to us that this could be one more piece added to the conundrum of this working time. The work of the encounter with and against the archive of the creative child leads us to say that because this child is a disembodied one, a trope, a phantasmagoria [[see Cat Martins's text *The Historical Ambiguities Surrounding Imagination: The Government Of The Hopes And Fears Of The Child's Imaginative Mind* in this publication]], she has, amongst her many superpowers, the power to produce lines, shapes, colours, forces and energies that create bodies that *yes* and bodies that *no*, people who *yes* and people who *more or less*, people who will still be or people who will not.

working spaces, and from public opinion due to corruption and budget slippage.

16 "Sticky" in Portuguese is "Pegajoso", comprising the term "Pega-" which refers to "Pegar" ("Handling").

Back in the workshop, the monographic tendency we experimented all over states that there is nothing wrong with an archive that constitutes the regime of possibilities of being creative. However, at the same time that it does so, it leaves out and buries other possibilities of constituting of such creativity. To interrupt this archive, and to interrupt this totalizing thirst, is also to recover the "buried lives" (Rolnik, 2011)/buried futures that had no place in the successive events that were determining states and acceptable strategies for educating in creativity. To interrupt this archive would be to interpolate it with the fabulations *about what is not there*. About what could have happened (Hartmann, 2008), or about what can now be made with the actualisation of those same materials.

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The Child's Mind and Creativity Machines

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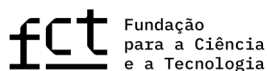
This text follows CREAT_ED's exploratory line IV, the conceptualization of the mind as both programmed and creative, from the essentialism of calculation to the cybernetic discourse in the programming of creativity in education. This line comprises a long timeframe, from the end of the 18th century to the post-World War II period. Without establishing a historical linearity, we attempt to understand how the conception of the mind in the production of the creative subject was built in a complex web of different discourses in different fields. In this text, we look for clues on how it was possible to articulate and harmonize the discourses and practices of psychology and technology in arts education, to the point of imagining machines teaching a child to be creative. We start by contextualizing these desires in the Enlightenment, when calculus began to be thought of as a mechanical task, until the technological materialization of teaching machines. Then, we analyze how different ideas of creativity in psychology were mobilized by figures such as Skinner, Guilford and Vygotsky. In this mobilization, strategies and devices for constructing the creative subject were materialized. Finally, from Ginger Nolan, we try to understand how Charles Leland established an imaginary that articulated mind, machine and nature. Leland's thinking is important in order to understand how certain dynamics emerged in arts education. These dynamics not only allowed for a harmonization of psychology and technology discourses in the 20th century, but also give us clues as to how its segregating and racializing premises are perpetuated through colonialities in arts education.

Today, the mind is a very different construct from that of the 18th century. Then, unlike the body, it would hardly be comparable to a machine. Also, in the European Enlightenment its capacity for creativity would still be a property of genius or God. Not even the word creativity was in use; other concepts, such as imagination, occupied the place and function of the term. In the mid-18th century, it would not be reasonable to associate the mind with mental operations that machines could perform. There would be no discussion about a machine that could 'create' in the ways artificial intelligence is problematized today. We would be very far from imagining that machines could be programmed to reproduce cognitive operations. However, this text argues that none of what we can discuss today, in the way we discuss it, would be possible if there did not exist back in the distant 18th century, in the most intimate wishes of the 'will to know', the desire to program the child as the citizen of the future. We maintain the ambiguity of the concept of program as order or ordering of conditions, of instructions in different subjects. We maintain its ambiguity with the idea of a project and its force of design, the desire for predictability, for government. However, we know what resonates when we talk today about programming a machine and, simultaneously, the power that the concept of a computer has as a paradigm of the mind. This text explores the resonance of programming a machine and programming a mind to be creative as technologies for predicting and governing the future.

The study of the child's mind is a way of understanding the adult's mind (Shuttleworth, 2010); that is to say, to project the adult that that child should be. It is a way of programming the citizen of the future. According to Sally Shuttleworth, many of today's ideas and fears about children and childhood, such as the pressure of exams, sexuality, the 'wild' child, can be found in the Victorian period. If we find most fears, hopes and desires in the Victorian era, perhaps it is because certain constructions and conceptions produced at that time remain very familiar to us as forms of government. Its variations and reconfigurations obey complex layers that are often contradictory, but which seek to produce a certain type of subject that responds to these desires.

This text starts from this assumption: the need to study the child's mind to better govern the future citizen created a terrain in which equivalences and articulations were constructed, connecting the child with nature and machines. Without these intersections, the idea of the mind that is with us today would not exist in the same way, nor would the notion that minds could work as machines by means of circuits, synapses, or feedback. The intersections are complex, and in this text, we aim to start unpacking some of them by trying to situate how psychological discourses about the child and her creativity were one of the spaces where these articulations came to life.

The conceptualization of the programmable mind in children's education carries with it the history of the study of the mind and of computing. Humans and machines as computers have fought (and still fight) for roles throughout that history, which has accentuated divisions of class,

gender and racialization. It is at the intersection of these histories that we try to understand how discourses in modern Western education have been able to articulate and produce the creative child from concepts such as mind, reason, computation, imagination and creativity. It then becomes necessary to observe the form that these discourses take in our two time frames, the late 18th century and the post-World War II period.

In the Enlightenment's reasoning, the idea of calculus at the turn of the 19th century seems to be full of contradictions, moving between intelligence and its opposite, sometimes as an attribute of genius, sometimes as a minor faculty. Gaspard de Prony's [[Calculus Monument]] experiment was paradigmatic in showing that anyone could do arithmetic calculation. Considered then as a mechanical, repetitive and monotonous task, it was thus opposed to spontaneity and imagination, which were characteristics increasingly associated with genius and the arts. However, because calculus was a mechanical task, it could be produced by machines, and the experience of the French mathematician was inspirational for the work of English mathematicians Ada Lovelace and Charles Babbage as precursors of modern computing.

The reduction of calculation to a mechanical and therefore less important faculty also means that the mind, unlike the body, was far from being considered analogous to a machine. However, it was precisely with the development of computing during the world wars, in particular the work of Alan Turing, that the formulation of the mind as a computer was established. The dematerialization of the machine generated the well-known formula: a computer

is software. Before and around World War II, research in the field of cybernetics focused on concepts like feedback and homeostasis. This research on the circuits and life of machines would be translated to the human mind. The war had placed the need and anxiety to know the laws of the mind at the center of psychological research. These questions were being asked, as we mentioned, since the end of the 18th century. The mechanization of the mind could then take shape and be at the origin of the cognitive sciences (Dupuy, 2009).

The dematerialization of the machine via the idea of software is analogous to issues of mind-body dualism; just as the mind cannot operate without a body, software cannot operate without hardware. It is necessary to give body to the machine, and new teaching materials are developed in these stories. Among various desires, such as lightening the work of teachers and developing effective technologies for self-instruction, led to the construction of machines that 'teach'. Teaching machines have been developed since at least 1924, like the [[Pressey Machine]], with the precise aim of instructing children in the desire for an industrial revolution in education. However, according to B. F. Skinner, this development was precocious, against old psychological theories of learning that did not demonstrate its necessity as they were "dominated by the 'memory drum'" (Skinner, 2003, p. 50). In the 1950's, Skinner built his own teaching machines within the framework of his Behaviorism. After all, his theory was also based on a feedback model, although with another name – "reinforcement" (Teixeira Pinto, 2015). The post-World War II period, in fact, became a

very fertile territory of intersections of discourses from cybernetics to psychology with creativity at its core. The creative child was the hope of peace (Ogata, 2013), but this story had antecedents.

A scientific discourse of the technological age for the engineering of worlds

As a scientific discourse being produced within the same movement that led to the creation of the modern sciences and their objects and subjects, between the 19th and the 20th centuries psychology generated internal and external dialogues, tensions and contradictions. One of these dialogues, and perhaps part of its own constitution as a scientific field, was with education.

Around the beginning of the 20th century, behaviorist proposals made an important contribution to the affirmation and recognition of a (natural and social) psychological science and its usefulness. Its intention - the establishment of a technical discourse on behavior, a science of observable behavior - was instrumental in providing an understanding of behavior (and people) as determinable, controllable and programmable; in other words, as being produced and reproduced through the manipulation of subjects and contexts. Teaching machines like the Pressey machines were part of this wave in which it was acknowledged how materialities could interact and make kinds of people (Hacking, 2007).

Machines, toys, environments, a whole set of 'actors' were brought into the production of the child in psychology and education (Martins, 2020). They were being programmed (designed) with a certain kind of child (and adult!) in mind. Once a set of creative behaviors and their desirability had been defined and determined, the creative child was both a possibility - something to be produced purposefully, technically and efficiently, if desired - and something to be produced as desired, i.e., suppressing manifestations that were seen as problematic or not valued by psychology. Based on and in pursuit of a universal child, a dominant subject (imagined as 'white' and male), all others, variously represented as approximations and/or negatives, were subject to intervention and to being observed, managed, governed.

The making and changing of people was at the heart of psychological and educational concerns. As Skinner argued in one of the moments when he explicitly addressed the issue of creativity, if it was desirable to want to "induce more people to paint" (or make more people engage in creative activities) and "to paint in acceptable and preferred ways" (or to engage in creative activities and produce results that are seen as creative, as in novel and valuable) (Skinner, 1969, p. 6) we need to take what is known about producing certain kinds of behaviors, making them more likely to occur, and apply it to this situation. That this wish is expressed in this way is significant in terms of the time in which Skinner lived. As opposed to the authoritarian subject, the post-World War II period yearned for the open-minded subject (Cohen-Cole, 2014; Martins, 2020). Not surprisingly, the American psychologist thought that

better teaching methods and programmed instruction might help. By placing behaviors that could be observed, operationalized and programmed at the center of the proposal, Skinner wanted to move away from the idea that a mind and mental forces were responsible for creating something 'new' when considering creativity. Those were times of regeneration and transformation of destructive forces into something positive. Different or divergent outcomes could be achieved by different strategies, derivations, combinations, imitations, by introducing random mechanisms or sources of random interference, etc. Skinner was more concerned with how these variations were selected over others in a context that was socially and culturally contingent and produced consequences, and how these selections and consequences could be manipulated and controlled:

"The mentalistic interpretation of the artist — and we've had for 2,000 years — doesn't dictate very specific practices. It really can't, because it doesn't point to things which can be changed, which can be manipulated. [...] Now, the account that I have given is not only anti-mentalistic. It may seem to be anti-individualistic. It is, after all, the culture which creates both the artist and the consumer of art. And the culture is our point of attack. We are concerned with the design of a culture. We want to build a world in which large numbers of people paint and look at pictures [...]" (Skinner, 1969, pp. 11–12).

These words are part of a climate of thought and optimism geared toward creating a subject capable of peace instead of war, using science and technical knowledge to do so. Although technical discourses are often silent about

their political and ethical determinants, their effects in supporting and reproducing power asymmetries and inequalities, the radical proposal of the behaviorists, their defense of human engineering and social and cultural design, force us to confront our tools and ends, educational or otherwise, for which we are radically responsible.

Mind the similarities

The renovated mentalistic discourses of the post-World War II period (in Western and industrialized geographies) are useful in order to understand how discourses advocating for creativity became difficult to question. These discourses are often set against a background discourse of crisis, a crisis in (Western, American, urban) societies that simultaneously derives from an expansion of technological solutions and their presence in everyday life - intensified by automation, gadgets and specialized services (Guilford, 1958) - and requires new/innovative technological solutions and people who are ready, willing and able to come up with them. With the ends set by identified, diagnosed or stated needs and problems, imagination and creative skills are seen as useful in promoting technological progress and finding solutions, including in the areas of social relations and political organization. One of the most prominent psychologists in the study of creativity, the American Joy Paul Guilford, argued that:

"Imagination in dealing with one's fellows is greatly needed at the personal level, in local and national politics, and on the international scene. Technical progress has made

possible a broader margin of survival. The same amount of inventive genius has not been shown in connection with the operations of living together." (Guilford, 1958, p. 5).

Although differently, making up kinds of people and their ways of living and being together is still central to the context in which creativity is now explicitly mobilized. Already signaling a shift toward the individual and the personal as locus of intervention and control, these proposals focused on the individual level and were interested in observing, measuring and understanding individual differences, and in finding methods and instruments to do so (e.g., psychometrics). The methods that were massively applied in the army within the context of war are moved into society. As with other mental abilities, tests for observing and measuring creative abilities, and the mental abilities that were important in order to understand how creative results were produced, were deemed essential (Guilford, 1950). They could also provide support in discovering creative promise in children and youth and in promoting the development of creative children. Providing a systematic way of identifying differentially creative children, designed and devised with the 'white', Western, middle class, able-bodied child in mind, these discourses became instrumental in affirming and reproducing lines of difference that were/are often used to justify the exclusion of other children.

Creativity was presented as an aspect of the intellect in which different abilities might coincide, and which depended on different types of operations being performed. The description of concepts such as divergent thinking, and

of divergent thinking abilities such as fluency, adaptive flexibility, originality and elaboration abilities (Guilford, 1958) was part of this agenda. It supported and promoted the design and creation of materials and methods for exercising creative thinking, and the idea that opportunities to engage with them, could be introduced not only by art, where students "are expected to be creative", but also in other areas where "creative performance" needed improvement (Guilford, 1958, p. 16). This has led to the emergence of several educational and training contexts and technologies dedicated to the development of creativity, the promotion of innovation and problem solving. Even if skills were not seen as programmable in a behaviorist way, they could still be trained, practiced, stimulated and disciplined. Such courses and technologies have continued to this day, following similarly underlying discourses and hopes. They are hegemonically present in art and arts education, and have established the importance of creativity and creative thinking far beyond the artistic field – for scientists and technologists – in order to produce valuable solutions to human needs and problems.

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Idle no more

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The development of creativity has preoccupied developmental psychologists since the beginning of the twentieth century. This has often involved studying the processes of change involved in transforming the [['primitive']] and 'immature' creativity or imagination of the child into the more sophisticated creativity of adolescents and adults (for this subject see [[The Historical Ambiguities Surrounding

Imagination: Governing the Hopes And Fears of the Child's Imaginative Mind]]). A useful example is the work of the Russian psychologist Lev Vygotsky. In his view, creativity was seen as a mental process, combinatorial in nature and dependent on the cultural tools, interactions and opportunities made available in social contexts - "everything the imagination creates is always based on elements taken from reality, from a person's previous experience" (Vygotsky, 2004, p. 13). This had a number of implications, not least in terms of how a greater number and breadth of experiences could be related to richer forms of imagination. Experiences constituted a kind of combinatorial capital, providing access to materials and tools that made creative activity more or less possible, combinations more or less diverse and sophisticated. Vygotsky (Vygotsky, 2004) emphasized the role of collective history and social and cultural environments in the possibilities and conditions for creativity. This meant that not everyone had (or was given) the same conditions to create or be creative, and that creativity was never strictly individual. More than he might be aware, his explanation illustrated how creations dialogued and re/produced social and historical discourses - in presenting his ideas he mobilized examples that contrasted the creative possibilities and opportunities of what he called [['primitive']] and civilized people, of different privileged classes (echoing other authors of his time, notably the French psychologist Théodule Ribot), and followed colonial, Eurocentric and classist narratives and lines of power.

As the child grew up and became more engaged in different kinds of school and work activities, imagination underwent

a "profound transformation: it changes from subjective to objective" (Vygotsky, 2004, p. 35), from imagination that primarily built on emotions and elements from within, to imagination that primarily used impressions and elements from without, more interested in technique and in mastering materials and different disciplines supporting the exercise of creativity - "[w]ork itself became meaningful and pleasant and creation stopped being an amusement and a toy, not worthy of a serious adolescent's interest, and began to satisfy the serious critical attitude adolescents take to their work" (Vygotsky, 2004, p. 86).

There was a movement from the ludic to the productive, from playing to serious engagement. Although imagination was always part of play and opened up possibilities for spontaneity and freedom, it was through play that the child learned self-control and self-determination [[self-government]] by learning to internalize rules - "the essential attribute of play is a rule that has become a desire. (...) play gives a child a new form of desires. It teaches her to desire by relating her desires to a fictious "I", to her role in the game and its rules." (Vygotsky, 1978, pp. 99–100). Play created the (imaginary) space in which the child developed meanings, motives, desires and will. Forms of serious and productive play emerged that both signaled and supported a path of positive individual and social development, avoiding the "dangerous aspects of [an] imagination" (Vygotsky, 2004, p. 37) that could lead the child or adolescent to retreat into forms of escapism and distraction, withdrawal or self-absorption (see [[The Historical Ambiguities Surrounding Imagination: Governing the Hopes and Fears of the Child's Imaginative Mind]]).

Creativity and play were important to produce the future productive adults that children had not yet become. Children were the future and the makers of the future because "[t]he entire future of humanity will be attained through the creative imagination; orientation to the future, behavior based on the future and derived from this future (...) The development of a creative individual, one who strives for the future, is enabled by creative imagination embodied in the present" (Vygotsky, 2004, pp. 87–88). They could not escape the lines of power and the inequalities it drew, and those it erased.

Architecture Machine

Discourses in psychology produced the creative child as a kind of person and placed her at the center of education. Tests, materials, games, machines were produced to produce and govern this subject. But to what extent is the construction of machines to fabricate the subject not to be confused with the very subject that one wants to produce? With this claim that mental operations could be reproduced by a machine, the machine that would supposedly teach the child could simply replace it! If this machine came to fruition, we would have freed children from this adult fantasy! However, similar to machine-worker competition, in which the worker is never freed from work, perhaps this fantasy of creativity has trapped the child in the machine's feedback. Especially because it would have less to do with the child than with the adult she should become. In this sense, the teachings, contents, and construction of the machines would depend on this adult to-be, on the desires

and ideals in a web of discourses in psychology, education, art and technology. But how much of the imaginary of a creativity machine informed these speeches?

Ginger Nolan starts to give us some hints that we will have to pursue in the future. Nolan begins her book *Savage Mind to Savage Machine* (2021) with the "architecture machine", a technology imagined by Charles Godfrey Leland in his unpublished work *Prophesies for the Twentieth Century* (1899). With this technology, Leland imagined that it would be easy to decompose some matter into an impalpable state such as dust or vapor, and recompose it into a hard substance. What would be the advantages of this? Leland advocated that it would be possible, without great effort and very quickly, to make stone into any shape. Poor people and children could build huts from their imaginations, the pyramids of Egypt could be rebuilt without enslaving people, "Nature will be really reproduced by Nature" (Leland apud Nolan, 2021). In a mystical and technological setting, the use of the [['primitive']] is for Leland a way of decoding the mind, which in turn shares the laws of nature. Thus, through the [['primitive']] and the mixture between mind and nature, a creative machine was born. The creativity he was looking for was in the articulation between the creativity of nature and the creativity of the human brain. 'New' teaching methods were also born so that the imagination could evolve toward this new science of the creative mind and this new relationship with the machine. In Nolan's words: "Consequently, the creative imagination might come to operate more like a machine while, conversely, machines might learn to operate more like creative humans." (Nolan, 2021).

Nolan establishes Leland's imaginary about the mind, with distinct domains between language and the unconscious. It is in this sense that the machine could be imagined as a way to bypass language. On the other hand, it is in the unconscious that the body and the intellectual faculties converge. It is also for this reason that all minds are equal and different. 'White' people could evolve in certain domains of the mind unlike racialized people. Charles Leland was the founder and director of the Public School of Industrial Art in Philadelphia. He influenced many schools of his time, as well as movements such as Arts & Craft, and Bauhaus itself (for example, some of his exercises and methods were used by Johannes Itten). At a time when in the USA there were forms of education ideologically marked by specific intellectual and corporal training for different classes with forms of segregation and racialization, Leland contributed to this device with the belief that:

"[U]nconscious mind lies at the nexus of intellectual and bodily unity and that education must be directed toward this locus of artistic productivity. He argued that the unconscious capacities of art production that had long lay dormant in the Anglo-American brain could be consciously mastered and thereby taught in public school curricula." (Nolan, 2021)

Before the 20ᵗʰ century, this 'gentleman' seems to have established a kind of harmonizing antechamber for various discourses of psychology and education, regardless of their contradictions. The relationships drawn between

magic and technology in an evolutionary scenario and its conception of the mind established pedagogical dynamics in which the search for a creative mind would require a developmental perspective and behavioral training. The organic harmony between the human brain and mechanical production would need to be measured, evaluated, and reproduced in teaching or creative machines.

Final remarks

It is not by chance that this text ends with Leland. He was not just the precursor of discourses and practices in arts education, psychology, technology, cybernetics, and even artificial intelligence, in the 20th century. This 'gentleman' was a product of a discourse configured through historical contingencies that were established at the intersection of technoscience and colonialism. The resulting power relations, discourses and structures established a ruling class that, in its refusal to understand its place of power and privilege, disclaimed responsibility for its atrocities. [[Whiteness]] is being constructed also by this refusal. In today's globalized discourse, we do not forget its starting point and we call it Eurocentrism. Nor do we forget the starting point of fleets of ships that, by means of emerging technoscience, were the basis of an economy anchored in the largest kind of transatlantic traffic – the enslavement and exploitation of people, extractivism and colonialism; the economy that allowed the expansion and progress of this technoscience, that configured good taste (Gikandi, 2011), art and education, that is perpetuated today through [[colonialities]] (Quijano, 2000).

Children are produced as naturally creative, but that creativity has to be controlled and governed through education, spaces, materials, machines or computers. The creative mind creates machines and, with them, the future.

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The Historical Ambiguities Surrounding Imagination: Governing the Hopes And Fears of the Child's Imaginative Mind

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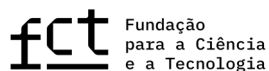
The text deals with the historical ambiguities surrounding imagination as ways of making up the imaginative child. The hopes and fears of the imaginative mind are connected to the threat of imagination in the corruption of what the child should become. It echoes the 18th-century perception of imagination as related to madness in terms of the corruption of reality; and the Renaissance perception of imagination as related to feminine monstrosity. Imagination was also feared because it could create a split in the child's self. However, even if not trusted, imagination was not avoided in modern Western education. On the contrary, the 'will to know' imagination made imagination a prolific site of discursive production. Different types of imagination emerged, and with them, different kinds of children, the 'right' child, and the wilful child.

Introduction

"I have been wondering", William Canton, the British poet and writer, wrote in his 1911 book *The Invisible Playmate*, "whether the child is only what is called making-believe, or whether she really sees anything". The question was directed at the reality of children's imaginations, between what was called objective reality and subjective fantasy, and expresses the distance between the world of adults and the world of children. The children's world was conceived as a separate world, one which adults had to enter to better govern the child's will. As such, the question was how to act concerning the strong perceived capacity of children

to imagine? The path seemed to split in two directions, both requiring careful exploration: "To encourage her in this amusement might lead to some morbid mental condition; to try to suppress it might be equally injurious, for this appears to be a natural faculty, not a disease. Let nature have her own way?" (Canton, 1911, p. 16).

Within the Western [1] educational realm, Canton's questions did not encounter any single answer as two major operative forces were at play. On the one hand, the fear of an excessive imagination which was seen as a diseased faculty; on the other hand, the recognition of the importance of imagination to the child's life.

This text deals with the fears and the hopes (Popkewitz, 2008) deposited in imagination, mainly through the educational and psychological literature of the long 19th century. My interest in imagination is how it is an invention, a fabrication of a potentiality of people that is not just there to marvel about some qualities, but it is an actor in the governing and the distribution of difference that is made an interiority. It means that the imaginative or the creative child are kinds of people [2] (Hacking, 2006) that are made up as objects open for government. At the same time, as kinds of people they can also interact and threat the classifications and their limits. What Ian Hacking calls the looping effects is the dynamic nominalism, that is, what it meant to be an imaginative child as a kind of person, the experts who defined its borders, the institutions and the subjects who also made the classifications change.

The first section focuses on how the child's power to imagine beyond reality was perceived as dangerous within the educational field, particularly repeating some earlier

traces of imagination as connected to female monstrosity and to madness. The fears of imagination in the educational sciences also resulted from 19th century fears of imagination in science, as opposed to reason and the new polarity between objectivity and subjectivity (Daston, 1998). The second part deals with the construction of borders between different types of imagination, defining the morals on how to imagine properly as paradoxically of the 'nature' of the child. The classifications become more detailed as forms of governing the imaginative child. This constitutes part of the ambiguities surrounding the idea of an imaginative child; such imagination promises and threatens, it appeals to the Enlightened mind while potentially transgressing the borders of 'normality' and morals. Unsurprisingly, the government of the imagination happened by inciting the imagination, especially from the good examples of art. The arguments mobilized within the educational discourses also identify how the imaginative child praised in Western education was entangled with racial, gender, ableist grids of thought.

THE PERILS OF IMAGINATION

Historically, children's imagination in the educational field did not appear free of uncertainties, despite its hegemonic acceptance in the present. 18th century physiology spent time searching for the causes and understanding of a 'diseased imagination' which was identified as the origins of madness; the 19th century resonated with this fear within the educational landscape. The distrust concerning imagination related to its capacity to corrupt

the moral state of happiness, echoing two lines: i) the 18th century perception of imagination as related with madness in terms of the corruption of reality; ii) the Renaissance perception of imagination as related with feminine monstrosity.

In relation to the realm of madness and pathologies, imagination was the opposite of Cartesian reason. The healthy mind of the Enlightenment was the mind "unperturbed by passions or an unruly imagination" (Daston, 1994, p. 191). This did not mean the Enlightenment avoided imagination; quite the contrary. Enlightenment savants trusted reason to discipline imagination. Imagination created a spicey reality, and as education as a science was concerned with turning children into citizens of the nation, reason should not be lost. Imagination had to be watched and cared for to avoid errors, the corruption of reality and splits in one's own self. Simultaneously, and sometimes intertwined, particularly in girls, imagination was feared as a disordering of the world and the duties reserved to what it should be to be a girl. This did not mean that imagination was avoided in education but that this faculty, so common in children, had to be governed.

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Imagination as the cause of unhappiness: fear of the troublemaking female child

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In this section, I will argue about the fear of the troublemaking female child. The imagination served to trace gender differentiations. For girls and boys, the imagination could cause unhappiness due to the disconnection created with reality. However, when referring to girls,

the fear was of a breakdown of the established order. The imaginative girl would be the troublemaking child, appearing connected to a wild imagination and resembling figures such as the witch or illnesses such as madness. According to the Swiss Jean-Jacques Rousseau, in his book *Emile*, a child's early years should be lived respecting their freedom and 'creative' nature. However, this 'creative nature' should not be a freely imaginative mind (Shuffelton, 2012). After even recognizing imagination as the most active faculty in the child, Rousseau linked the overwhelming power of imagination to a state of unhappiness.

"As soon as his potential powers of mind begin to function, imagination, more powerful than all the rest, awakes, and precedes all the rest. It is imagination which enlarges the bounds of possibility for us, whether for good or ill, and therefore stimulates and feeds desires by the hope of satisfying them. But the object which seemed within our grasp flies quicker than we can follow; when we think we have grasped it, it transforms itself and is again far ahead of us. We no longer perceive the country we have traversed, and we think nothing of it; that which lies before us becomes vaster and stretches still before us. Thus we exhaust our strength, yet never reach our goal, and the nearer we are to pleasure, the further we are from happiness" (Rousseau, 1925, p. 44).

The image described by Rousseau was a fruitful trigger for the imagination of his readers. A scenario in which

imagination was potentially good but with any loss of control resulting in unhappiness as that desired would never be achieved. The world of reality "has its bounds, the world of imagination is boundless", thus concluded Rousseau, "as we cannot enlarge the one, let us restrict the other" (1925, p. 45). The hopes and fears of imagination are played out in this extract, and the fear of what cannot be anticipated gains an advantage. Therefore, according to Rousseau, any stimulation of the imagination should be delayed in the education of children. Therefore, as far as possible, children should be maintained in the state of [[nature]].

Within the same fear of imagination is the troublemaking child, that child who bordered on the mad and the insane but who also resembled the sensibility and unreason attributed to women. The female troublemaking child "gets in the way of the happiness of others" (Ahmed, 2010b, p. 60). Such children jeopardize the ordering of the world operating in the educational field: she would want that which could not be desired, she would invent what had no place in that world and, above all, she would develop ways of resisting domestication. An overwhelming imagination could create a wilful character, and education, even following the child's nature, was intended to drive out wilfulness, particularly in those that were destined for docility. Indeed, in *Emile*, the reference to the undesirability of an imaginative mind strongly appeared associated with Sophy, and not with Emile.

Sophy, the female character in the treatise, is described as having too much imagination and desires which were triggered by reading too many books, and her "warmth

of heart sometimes makes her imagination run away with her" (Rousseau, 1925, p. 356). If, as Sara Ahmed (2010a) argues, this can be considered a queer point in the narrative, as imagination can challenge the reign of the almost unquestioned idea of happiness, it is also part of a history in which imagination differs from reason, with the former associated with females and the latter with males. In Rousseau's book, Sophy fell in love with Telemachus, and this imaginative story made her an "unhappy girl, overwhelmed with her secret grief" and "devoted to her imaginary hero"(Rousseau, 1925, pp. 367, 368). Thus, ever-wandering imaginations could be dangerous. The delight of girls in romances would make them, advised the author of Telemachus, "live like those imaginary princesses, who in the romances are ever charming, ever adored, ever above all wants. How distasteful for her to descend from such heroic heights to the lowest details of the housekeeping!" (Fenelon, 1891, p. 17). That was the tale of happiness… Happiness thus involved, as Sara Ahmed (2010b) argues, being directed in specific ways. Happiness as an 'affective form' was crucial to education as a [[straightening device]].

The feelings of Sophy formed part of an immersive and disorientating imagination, creating a scenario that disagreed with reality and the feasible horizons of that reality. The connection of imagination with desire was no new articulation but rather represented part of the modern secularization of the soul as the [[mind]] and, as such, as the engine of the intellectual and moral being. Imagination imbued life with the force of will, making the mind an active rather than a passive entity. However,

directing the will was the purpose of education and not of the imaginative mind. Imagination was dangerous because this might command the mind; it was lower than the faculty of judgement and, so vivid, able to lead to psychosomatic disease (Engell, 1999, p. 55). To avoid a tragic and unhappy ending, Rousseau continued: "Let us give Emile his Sophy; let us restore this sweet girl to life and provide her with a less vivid imagination and a happier fate" (Rousseau, 1925, p. 368). Hence, the discouragement and containment of female imagination was the path to happiness. In the context of Sophy's education, imagination would be a weed, while happiness provided "a script for her becoming" (Ahmed, 2010b, p. 55).

The script for this becoming of girls was understood as part of the narrative of the book of nature. The modern notion of nature had moral values that assigned specific roles to differentiate between genders. Women were said to have a natural vocation to be mothers and wives. This was justified as part of nature's moral authority, i.e., as "the essence of a thing" (Daston, 2019, p. 7). As such, women should look and behave in particular ways, and all the gestures that seemed otherwise were a threat against nature.

Maria-Hèlene Huet argues that from the Renaissance through to the end of the Enlightenment, the dangerous powers of female imagination were the object of literature produced all over Europe, in the Latin and vernacular languages, about unfulfilled desires and the act of generation. Not rarely, one of the leading causes of monstrosities was interrelated to maternal imagination. The woman, "overwhelmed by gazing at images or

by unchecked desires, she let her imagination interfere with the creative process and reproduce strange figures, or monstrosities" (Huet, 1993, p. 7). The female subject would be the cause of degeneration by derogating their maternal duties or their inflamed imaginations. It was the female imagination dwelling on the place of guilt should children be born with horns or tails. During the 19th century, the concern around inheritance transported the fear of risky and moral behaviors in the figure of the child (Rose, 1985). As such, a diseased imagination in the mother could carry over into future generations. Lorraine Daston and Katherina Park also note that the 'mother's imagination' which produced monsters was a "sign of sin" (1998, p. 192). These extraordinary features were attributed to the figure of women, particularly those women that Silvia Federici (2009) referred to as the witches.

It was precisely through this connection between witchery and monstrosity that the North American progressive educationalist G. Stanley Hall, in his book *Educational Problems*, talked about the 'chronic diathesis of falsehood' provoked by too much imagination. Hall provides his readers with a collection of the most common cases among 'pubescent or pre-pubescent' girls. The first story linked to the history of witchcraft. This was the case of the "Throgmorton daughters, the eldest very imaginative and melancholic, with her mind inflamed with ghosts and witches" (Hall, 1911, p. 350). Another case was a girl who "swore she was carried through the air and when very high uttered the name of Jesus and the devil let her drop" (Hall, 1911, p. 350). One more story about a girl living in New England that started a 'witch mania' and

contaminated others with a "diseased imagination" (Hall, 1911, p. 353). Furthermore, among the many other cases, one of two German migrants in New York who brought up their daughter "on a diet of literal truth, and tabooed fiction, poetry, and imagination as lies" (Hall, 1911, p. 359). The girl was bright and, "at twelve had never read a fairy tale or a story book, but was constitutionally dreamy and ardent-souled, with a great passion and talent for music" (Hall, 1911, p. 359). This girl invented a big lie that caused the family to crash. Lies, concluded Hall, even if they could have many causes, such as the vicious environments where children lived, were very much motivated by "imagination, vanity, desire of display" (1911, p. 365). Soon, the child was not able to "distinguish between what is real and what is fancied" (Hall, 1911, p. 365).

Imagination was a threat as it potentially could corrupt and fragment the child's own self. The causes of excessive imagination were mostly located outside the child, which made them easier to change. A disorder of the senses was believed to be provoked by some literature or theatre, particularly in women.

A sense of illusion would bring artificial meanings, "bringing dangerous movements of the soul" (Foucault, 2006, p. 370). Concerning childhood, an overactive imagination could be the door to madness. The description of 'nymphomania' in girls directly related to precocious reading, to the seductive language of novels, that too soon opened the kingdom of sexual desires. "Once the imagination was set free, appetites could only grow, and the fibres were stretched to an ultimate degree of irritation" (Foucault, 2006, p. 236). By the end of the 18th century,

the same connection of a pathological imagination with women was articulated around hysteria. This disease, says Foucault quoting Joseph Raulin, "'in which women invent, exaggerate and repeat all the various absurdities of which a disordered imagination is capable'" (Foucault, 2006, p. 279).

Imagination had not to be ruled out but misdirected with proper instruction. Therefore, the fact that literature or theatre provided the ingredients for these unleashed imaginations, this did not lead to suppression but rather the selection of what and in which doses should be provided in a balanced educational diet. Not by chance, in terms of Emile's education, Rousseau recommended only one book, *Robin Crusoe,* for the education of Emile and not one for Sophy. The colonialist and exoticist drive of *Robin Crusoe* aligned with his sexist approach to education. Throughout the 18th century, with lasting effects in the field of education, the potential of literature and sexual experience turned into a problem in the education of children, particularly for girls (Benedict, 2001). Literature was perceived as feeding curious minds and made other roles available than those expected for women, and this was deemed unsettling.

Not only words but also images. Rousseau also stipulated the avoidance of images in early education. Emile was to learn to draw from the observation of real objects and, through repeated observation, the form would be "impressed on his imagination, for fear lest he should substitute absurd and fantastic forms for the real truth of things" (Rousseau, 1925, p. 108). As argued by Daniel Tröhler, in the first three books of *Emile*, the notion of a

negative education "serves to keep the passions tempered" (Tröhler, 2012, p. 484). In Rousseau's thought, educating Emile through the training of his senses constituted the best way to avoid the passions that might emerge through any vivid and untamed imagination.

In *The Moral Culture of Infancy*, the two North American Froebelian educators, Mann and Peabody, argued they were not afraid of allegories and fairy stories in the education of children but only when these were "truly imaginative" (1870, p. 175). The truly imaginative contained a moral orientation towards the 'right' script of happiness, to a natural and good life, without fears. A fairy coming out of a flower was an imaginary being "that will never disturb the dreams or deceive the intellect of the child" (Mann & Peabody, 1870, p. 175). The same, however, would not be possible, they argued, with stories featuring creatures like 'ogres'. Disturbed dreams represented a threat to the script of what the child should be, which would make her a troublemaker.

This anxiety is very present in *Emile* as regards Sophy's education. Rousseau exposed the differences between males and females as gender differences and advised parents not to cultivate 'masculine virtues' in girls (1925, p. 327). The girl who did not control herself, who went from one game to another, who was unruly, immodest, imaginative, and who liked to read, was the girl feared by education. The gendered definition and objectification would naturalize the same nature of the girl as a reproductive body, as a mother, and not as a creative subject, or producer. The girl's imagination could take place in a fantasy world, for example, imagining themselves as

adults and fantasizing about wearing adornments. "Here", said Rousseau, "is a little girl busy all day with her doll; she is always changing its clothes, dressing and undressing it, trying out new combinations [...] in this endless occupation, time flies unheeded, the hours slip away unnoticed" (1925, p. 331). Sophy was that warm-hearted girl whose imagination was, sometimes, dangerous. If imagination was conceived as proper of childhood, in girls, it was presented as corrupting what a paternalist and misogynist society conceived of as a 'good girl'. One of the most critical voices of this female education was Mary Wollstonecraft's. In her 1792 book *A Vindication of the Rights of Woman*, she criticized Rousseau and his educational ideas, a system that she "earnestly wish[ed] to see exploded" (Wollstonecraft, 2004, p. 171).

The association of imagination and trouble is a powerful one. Imagination was about a certain way of being and behaving, classifying different kinds of subjects according to gender, and in this movement to trace places of happiness and abjection. The lesson to learn was that excessive imagination provoked a mind disobedient to the will of education, and thus, imagination as wilfulness would only lead to unhappiness. And while this held true for boys, it became pathological when happening to girls. The history of the imagination, curiosity or desire of girls pictures them as perverted, precocious, poor, working class girls, no longer innocent beings [[innocence]], rather viruses with the potential for endangering the undisturbed, moral security of the bourgeois order.

The threat of splitting the child's self and governing the child's imagination

The fears arising around imagination were very much related to a mismatch between the child's perception and reasoning of the world and what was deemed the 'real'. The mind of the child could create a 'phantasmagram' (Casid, 2015) [[see also Popkewitz's text in this publication]]. The conceptualization of the imaginative mind as active and capable of creating new realities, while this stemmed from the modern notion of the self occupying the pre-modern place of God as the Creator, was experienced with anxieties. These fears were also perceived during the Enlightenment concerning optical devices, such as the magic lantern or other optical instruments. Jill Casid explores some of the anxieties those instruments raised in the mediation between the subject and the images produced and projected onto walls. The magical transformation "haunting the instrument as a technology of enchantment that creates the facts it claims to reveal and that conjures a speculative universe" (Casid, 2015, p. 202). This speculative universe embodied the fantastic or monstrous images generated by the capacity of projection to alter the object of sight. Such projections might fabricate another layer of reality that could be felt as strange through optical effects such as painted glass sliders, prisms, or lenses, among others. Just as the product of children's imaginations mediated by books or images, the resulting projections were received with anxieties. According to the North American educator Earl Barnes, children's imaginary companions could be dangerous.

These creatures "created out of nothing", changing from day to day or persistent for years, "may raise difficult questions, for the child will treat them as real beings" (Barnes, 1914, p. 25). As such, imagination, when "too much encouraged, it divorces the individual from the actual world" (Barnes, 1914, p. 26). The child would then become impractical, inefficient, and discontented, unable to perceive the truth, and "if it deals with base images, it may corrupt and spoil the character" (Barnes, 1914, p. 26). The problem that arose interrelated the discrepancy between the real and the imaginary. If the latter manifested itself with intensity, it would affect the former, and the child would fail to distinguish distinctly between one and the other. All the sufferings that would make her miserable would undoubtedly derive from this confusion. In the French *Dictionnaire de Pédagogie et d'Instruction Primaire*, Gabriel Compayré stated that "in the normal state of a healthy intelligence, the image, however vivid it may be, does not lead to the belief in the existence of the object it represents"(1882, p. 1005). The confusion and overlapping of imagination with reality resulted from a troubled spirit or madness, which might be termed a hallucination.

The power of imagination was naturalized as proper of childhood, and it was in its formulation as a problem when it was perceived as going sideways, that its governing became possible. G. Stanley Hall stated that it was mainly in play that the faculty of imagination became more vivid. "Children", he said, "make believe they are animals, doctors, ogres, play school, that they are dead, mimic all they see and hear". However, the idealization of temperaments

would easily prompt children "to assert that they saw a pig with five ears, apples on a cherry-tree, and other Munchausen wonders, which really means merely that they have had a new mental combination independently of experience". The problem was not imagination but their belief that "their life is imagination". As such, government of the imagination represented the only solution. "Its control and not its elimination" was, in Hall's opinion, "what should be sought in the interest of the highest truthfulness and of the evolution of thought as something above reality" (Hall, 1907, p. 127). Thus, reality was that necessary to govern excesses of imagination in children. Nature appeared as a solution because it constrained the violence that desire could represent, by nature's laws and, simultaneously, as nature was what reality was, - a truth -, it also challenged the fantasies produced by the overwhelming imaginative mind of the child.

Too many images, too many books, and too much imagination could be threatening for the child's sense of reality. Foucault sets out an example of the relationship of mad persons with images. The madness started when the investment in an image worked as a trap, with the mad person incapable of escaping. For instance, there was nothing wrong with a man imagining he is made of glass, but "he is mad if, thinking he is made of glass, he concludes that he is fragile and in danger of breaking" (Foucault, 2006, p. 233).

The fear of an overwhelming imagination within education is also an inheritance of the relationship between imagination and madness. The comparison cannot be grasped without including its underlying message of what should

be the desired imaginative child's mind. The comparison brings out the Western fear and curiosity around madness as the space of the 'Other'. The comparison and metaphor serve to tell about what is undesirable, dangerous, unreasonable, illusory, and lacking a sense of reality.

"It is imagination, which is prey to errors, illusions and presumptions, but in which are equally summed up all the mechanisms of the body. And in fact all that is unbalanced, heterogeneous and obscurely impure in the temptations of classification, is the result of an 'analytics of imagination' intervening secretly in their workings" (Foucault, 2006, p. 198).

The articulation of imagination as an illness was deeply explored as a problem by the medical treatises of the long 19th century. All diseases of the mind, the Austrian physician Ernest Feuchtersleben would argue, "have their origin – and what is called their seat – in the imagination" (1852, p. 37). Whenever imagination predominated to an 'abnormal extent', the child would forget herself "in waking dreams" and "made the first step towards insanity" (Feuchtersleben, 1852, p. 38). Joseph Tissot in *L'Imagination, Ses Bienfaits et Ses Égarements*, was aware of a healthy side of imagination. However, there were products of imagination which were "almost frightful perceptions, which throw the soul into terror and horror" (1868, p. vi). The causes of trouble could vary, being immediate or remote. However, they articulated a relationship of the soul with the body that took a moral path in the educational field in the 18th and 19th centuries through authors such as Rousseau and Gabriel Compayré.

The notion of cause is very important in the pathologization of imagination. Any event of the soul could be understood as a cause of madness: "'a love of science or a devotion to letters' […], the reading of novels, theatrical spectacles, and anything that excited the imagination" (Foucault, 2006, p. 221).

In the book *The Physiology and Pathology of the Mind*, Henry Maudsley linked the child's imagination with insanity. According to this British psychiatrist, there was no doubt that early imagination should be approached as a source of danger. As a danger, it should always be restrained, "not fostered as a wonderful evidence of talent". The whole effort should focus on transforming a potentially harmful imagination into a positive one in connection with the world. Maudsley recommended asking of children "regular intercourse with the realities of nature". This would open a path in which the internal adaptation of external realities would collect "in the mind stores of material, and that, by an orderly training, this may be moulded into true forms, according to which a rightly developed imagination may hereafter work in true and sober harmony with nature" (Maudsley, 1867, p. 271). The conclusion seemed to resemble common sense. Like sensibility and the disturbed and disturbing faculties which were susceptible to good or evil, Gabriel Compayré considered "the imagination must be supervised, restrained, and directed" (Compayré, 1887, p. 139). The regulation of imagination was only possible by nourishing and exercising it. In his perspective, nothing was more wrong in the minds of ancient educators than excluding imagination from education. In the 17th century, he stressed,

imagination "was considered simply as an instrument of error" (Compayré, 1893, p. 73). Moreover, even if, in poetry and art, imagination could sometimes conduct to the artificial and the false, and in practical life be "the source of the romantic, and by its enchanting fictions" disgusting us with reality (Compayré, 1895, p. 161), there were the other sides of imagination. Imagination played an essential role in the intellectual economy: "it animates and vivifies the intelligence; it excites the will; and at the same time extends the sensibility"(Compayré, 1895, p. 161). Its danger was "only when it goes astray, when it is not regulated" (Compayré, 1893, p. 73).

THE BORDERS OF IMAGINATION

We have been realizing that the different ways in which imagination was spoken of in the educational field were shrouded in ambiguities. Sometimes welcomed and desired, sometimes feared for the troubles it might cause to the production of the child as a citizen of the future. What we shall now see is just how this discourse unfolded, identifying nuances in these ambiguities and anxieties, above all through the lines that were drawn between good imagination and bad imagination. The imaginative child as a kind of person was already a reality, with more than one way to be lived. Imagination was never denied in education, but its threatening and desired presence was approached as the scope for better governing the child's mind. It also served as a marker to differentiate among types of children. Indeed, while every child was naturally imaginative, there would also be those who would fall into

the healthy side of that faculty, and those who would land on its pathological side. In his 1895 *Studies of Childhood*, James Sully stated that "a child that did not want to play and cared nothing for the marvels of story-land would surely be regarded as queer and not just what a child ought to be"(1896, p. 26). I now want to explore the gates of imagination and the children left at the gates, whether for being too imaginative or for having no imagination at all. This separation only becomes possible by defining the kinds of imagination alongside models of 'abnormal' and 'normal' imagination. This 'regime of truth' of imagination in education was easily and peacefully solved by the good examples of imagination portrayed through the arts.

The gates of imagination and the child left at the gates

If imagination was now cheered within education, it was evident in the minds of modern educationalists that there had to be limits. Moreover, these limitations started out with the definition of that considered imaginative. Not everything, nor everyone, would be considered as having the power to create and fantasize. Thus, the first gate related to how a particular way of conceiving the imaginative child led to the making of kinds of people and their 'Others'. "All children", argued Burnham, "unless they be idiots, probably have productive or creative imagination" (1892, p. 212). The child with an improper imagination, called 'deficient' imagination, "may be sluggish and stupid or too constantly engaged in concrete activities in the real world" (Burnham, 1892, p. 212).

Examples of unimaginative children, who were said to be familiar, were hard to find in the literature dedicated to the imaginative child, "for the child of deficient imagination is likely to be uninteresting" (Burnham, 1892, p. 212). However, while some children were unimaginative, others were over-imaginative with both deemed inappropriate. Exaggerated imaginations disconnected children from their surroundings and also caused attacks of the terrors. Shadows could become wild beasts, statues would seem alive, phantoms appear, and the echoing of their voices might make such children think they had doubles, and with the untameable oddities of exalted imaginations provoking all of these.

In 1905, French doctor Ernst Dupré wrote about the mythical activities of children as morbid functions normal to times of childhood but that required monitoring whenever verging on the level of pathological mythomania. He introduced the idea of the recapitulation theories of the history of race in the child's figure. I will quote him in long length because this fragment condenses the different lines of naturalization between childhood and imagination, through processes of 'Othering' and, simultaneously, the idea of [[child development]] as the abandonment of this state considered as minor. The idea of some shortcoming through which the child is represented re-enacts the developmental perspective and reflects the wilful being that education had to maintain within borders. Educational practices would be those capable of calling the child progressively to reason.

"Subject to this fundamental law of ontogeny, our psychic activity goes through the same evolution, and the manifestations of the first stages of the life of the spirit are found the same in primitive man, in the savage or in the child of the modern civilizations. [...] The child is therefore a primitive. [...] And, consequently, he shows himself at the same time curious, because he wishes to know, and fearful, because he has the concern to live. But, at this age, cerebral activity, still in its infancy, lacks, both in the sensory domain and in the psychic domain, the lessons of experience and those corrections which the educating contact with reality incessantly brings to the first impressions of the senses and to the first creations of the mind: it lacks those data of comparison and control which are the natural sources of the critical spirit and represent, in the face of the fantasies of the imagination, reductive elements whose number and influence increase with age. [...] The child is therefore in essence a fearful, curious, imagi- native and gullible being. Under the influence of fear and curiosity, the creative fantasy of his imagination exercises itself, free from all inhibition, and imposes its chimeras, which vivifies a universal animism, on the credulity of a spirit without experience and without judgment. [...] the mythical tendency disappears more or less completely in normal individuals" (Dupré, 1905, pp. 8-10).

Dupré moved from normal childhood mythomania to what was considered pathological mythomania. The latter would have to be controlled because it would inspire actions

with social and medico-legal gravity. Whereas in these pathologizing terms, in the normal childhood, controlled imaginative activity was a kind of imaginative and innocent 'sport', in abnormal childhood, it would be characterized by vicious tendencies, instinctive perversions, or morbid appetites. It would never be "an instrument of play, but a weapon of war" (Dupré, 1905, p. 16).

"What means, then, may education employ for keeping the imagination within proper limits?" (Compayré, 1887, p. 154). Gabriel Compayré raised the question, and the answer seemed to be a question of ascertaining exactly where the borders of a moral and reasonable way of imagining lay. The ardent conceptions of the imagination could obscure the mind and the relationship between children and truth. Furthermore, while faculties, along with memory, were deemed essential to intelligence, imagination certainly was not one of them. Imagination was "an auxiliary, accessory faculty" (Compayré, 1887, p. 138). By this statement, Compayré did not deny how imagination could embellish existence and nourish hope, and as important for the scientist as it was for the artist. However, as stated by Kant, "the infant imagination is extremely vivid, and it needs to be governed, not to be enlarged" (Compayré, 1887, p. 140).

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The reproductive and the productive imagination

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Distinctions were made between types of imagination and, for each type, a barometer of the normal would be applied as a way of marking the good sides of imagination. Here, I

give a trigger warning for the processes of 'Othering' that are being activated through this section's discussion on reproductive and productive imaginations. The French pedagogue Gabriel Compayré suggested a simple division: representative imagination and creative imagination. The representative imagination would endow children with the ability "to see, with the eyes of the mind, the places, the events, and the men that are the subjects of the lesson" (Compayré, 1887, p. 142). However, for the better usage of this faculty, children "must be shielded from whatever is ugly, repulsive, and immoral" (Compayré, 1887, p. 143). The creative imagination became that type that portrayed how child's "mental state is very like that of primitive people, who attribute life and feeling to materials objects" (Compayré, 1887, p. 146). There was no great good "to be expected from a tendency which renews for each child the ridiculous crudities and dangerous superstitions of the infancy of the race" (Compayré, 1887, p. 146). Sometimes praised, sometimes feared, the the processes of 'Othering' in the construction of the 'white' child were always animating the Western mind forming the colonialities of thought that still pop up in the present. There was only one means of governing the imagination of children: keep them children occupied. The unoccupied imagination would be disposed to revery. And revery was likened to a wild weed with the corresponding necessity to prevent revery from becoming a habit, and for this purpose

"We must as much as possible occupy the mind with the labor of consecutive and sustained reflection; we must furnish the imagination with beautiful verses which have been learned by heart, and grand deeds which occur to the memory the instant the mind has a moment's leisure. [...] Give the imagination and the other faculties work to do, and you will cure the child of revery, that indolence of the thought" (Compayré, 1887, p. 157).

Imagination was governed within educational discourses as one facet to the appropriate cultivation of children. This means that even though imagination was perceived as proper to childhood, only the correct forms of government would allow its flourish properly. As such, the imagination to be cultivated within the scope of the normal development of children was in itself a 'straightening device' (Ahmed, 2006, 2014). I here apply the notion of a straightening device echoing Sara Ahmed's application of this as a technique and a way of holding the subject to account 3 (2014, pp. 7, 8). "An excess of imagination" was "fatal to good sense, to energy of character, and to the rectitude of conduct" (Compayré, 1887, p. 154). The question of maintaining imagination within borders was a question of governing the soul of the child:

"Whatever we may do, we cannot destroy the imagination; it is not possible to have it die of inanition. [...] But, however we may regard it, the imagination is certainly an indestructible force of the soul. It is better, then, to have it for us than against us; better to trace for it

3 For a more detailed analysis of the gardening practices of education as straightening devices, see my text *Learning Through the Senses...*, in this volume.

its channel than to run the risk, in abandoning it to itself, of seeing it pass its bounds in reckless disorder" (Compayré, 1887, p. 155).

To police the borders of imagination, leaving some children at the gates, seemed the best way of governing the unpredictability of children's creativity. In the French *Dictionnaire de Pédagógie et d'Instruction Primaire*, edited by Ferdinand Buisson, a distinction was again made between two kinds of imagination. There was reproductive imagination and creative imagination. The creative imagination was "extremely varied according to the individuals: in some it is almost null, in the artists it is very developed, in the fools it reaches its maximum of fantasy". However, children were seen, by Roger Cousinet, as great imitators and not creators. Creation, for him, was something emerging from experience, and the child's life span did not allow for that. Earl Barnes argued that in childhood, the mind, as well as the body, were very active, and ideas "crowd before consciousness in all kinds of odd combinations" (Barnes, 1914, p. 25). This could be seen, by adults, as the child's "brilliant imagination", but "creative imagination demands a well-ordered and active mind, stocked with vivid experience, and having a strong sense of universal truths" (Barnes, 1914, p. 25). According to Bernard Perez, imagination was natural to the child as a dreamer. What we call creative imagination, he wrote, "consists in separating, combining, cutting down, amplifying, abridging, exaggerating, and juxtaposing in a thousand different ways" perceptions able to create an inner world from the outer world (1889, p. 152). A child "in its ordinary state is

what a somnambulist is by accident" (Perez, 1889, p. 152). This taming of imagination walked side by side with the growing knowledge of the child. How to govern this faculty remained the question. To turn imagination into a field of government, the eventual meanings of imagination had to be discursively unfolded. At the turn of the 20th century, Théodule Ribot published an *Essay on the Creative Imagination* that started out by saying that while reproductive imagination had been studied by his contemporary colleagues, the study of the creative imagination "had been almost entirely neglected" (Ribot, 1906, p. vii). The book devoted a chapter to children's imagination. The first question was: at what age does creative imagination make its appearance? To him, imagination was appropriate to the phase in which special senses and a complex memory emerged. However, whatever the age, the study of the child's imagination was of great difficulty. "In order to enter into the child-mind, we must become like a child", he stated, and children were in a "civilized environment" (Ribot, 1906, p. 104). He meant that, on the one hand, the child represented the 'Other', different to adults, an unknown territory that required 'exploring'; on the other hand, living in a 'civilized' environment, the child's imagination was no longer in a 'simple' state. The [[colonialities]] of thought in terms of framing the problem made recourse to the notions of development and knowledge. By colonialities of thought I mean the ways of thinking that use the making of a 'Other' to make sense of the self of the Western child. Without even needing to make explicit comparisons, the layers in the sentence point out this

process of 'Othering' as a way of governing what should be the borders of a proper imagination.

Simple or complex, does creative imagination even exist in the child? This question was raised by Gabriel Compayré. According to his perspective, the usage of creative imagination was inexact because while it was true that imagination was acting and invention, it was not exactly creation. Most of the constructions of the imagination argued Compayré, "are due to associations or combinations of images borrowed from different objects" (Compayré, 1895, p. 155). As such, "the imagination does not create" (Compayré, 1895, p. 155). He preferred the name 'inventive imagination' to talk about that imagination that was natural in the early years of young people. Furthermore, by saying natural, he did not mean all children were equally imaginative, as the "inventive faculties supposes a strength of intelligence and a power of sensibility" unequally distributed in nature (Compayré, 1887, p. 145). However, imagination needed to be tamed by education, even if through free play. When children had trouble inventing fictions of their own, the educator should provide matter for their inventiveness, giving the child the "fabulous stories for which is he so hungry". Through this process, the educator would "control his taste for imaginary things" and "to direct it in our own way, and this way let us superadd to the spontaneous development of the childish imagination the new excitation which comes from the imagination of another" (Compayré, 1887, p. 148).

The question of promoting the 'right' imagination within the educational landscape was at the core of several

discussions. For James Sully, one form of imagination might be described as picturing objects and events through representative images. However, in these processes, the images were supposed to be copies of past impressions. In reproductive imagination, as he called it, "we retrace the actual forms and order of our presentative or sense-experience" (Sully, 1892, p. 223). However, what was commonly known as imagination implied more than this. "When we imagine", he said, "an unrealized event of the future, or a place which is described to us, we are going beyond our actual experience" (Sully, 1892, p. 223). It was this sense of futurity, of thinking about something not yet there, that allowed for the transformation of the images of memory and their recombination. The modern child was being constructed in the present, with the past and future as anchors. Governing the present of the child's imagination was about predicting the child's future as a citizen of the nation. The good work of imagination was a strategy for that becoming. Sully called this process productive or constructive imagination. The process of imagining the new was connected to sense perception. The "imaginative manipulation of material of sense-experience" played a large part in what was considered children's mental development (Sully, 1892, p. 225). If experience established the source of imagination, there was no other option but to perceive experience as the limit of the imagination itself. As such, any perfect 'new creation' was said to be impossible. The greatest imaginative genius, argued James Sully, "would strive in vain to picture a wholly new colour" (1892, p. 225). Educationally speaking, even they would stay at the gate.

Mastering imagination or enslavement by imagination?: regulating imagination by inciting imagination

In France, Queyrat (1908), in 1893, published an entire book on children's types of imagination and with a specific chapter talking only about the dangers potentially resulting from cultivating only one kind of image in education. Jean-Marie Charcot, whose work studying hysteria received widespread recognition, was mobilized to stress the lurking dangers of diseased imaginations. Moderation was the correct word to avoid the evils of the spirit, such as hallucination. How the fear of an excessively imaginative mind in the child was discussed within the educational landscape always relates to mental and moral pathologies. The well-educated imagination would be, wrote Camille Mélinand (1923), the docile imagination. The question was how to maintain the freedom not to become a prisoner of an excited imagination. Towards that end, "we must resort to the education of the will and the domination of ourselves. To become the unchallenged lords of our imagination, to banish all 'undesirable' images without hesitation". Finally, to imagine "only, and only that, what we want" (Mélinand, 1923, p. 249). This would be called the education of attention and will, i.e., the learning to discipline desire.

Like Mélinand, Sully also talked about imagination in terms of the will. In these terms, there was both a passive imagination and an active imagination. The passive imagination was a process that could be illustrated by "the grotesque combinations that arise quite spontaneously

in the childish mind before the habit of inhibiting these as useless has been formed" (Sully, 1892, p. 227). The education of the imagination would thus correspond to increasing control over this passive imagination, conducting children towards processes of self-government. One kind of imagination was favored over another, with the higher forms of imagination those requiring an "active regulative factor" (Sully, 1892, p. 227). The government of the passive imagination needed the work of "voluntary attention, the aiding of certain tendencies, and the counteracting of the others, in order to reach a particular desired result" (Sully, 1892, p. 227). It became evident that the imagination, even the productive imagination, aspired to desirable results. Its opening, however, inside the school context, was perceived as dangerous. Imagination could not be allowed free rein; should such happen, it would not be constructive.

The British psychologist was aware of the dangers of imagination. However, "when duly controlled, imaginative activity not only leads on to the grasp of new concrete fact, but even prepares the way for the higher processes of thinking" (Sully, 1892, p. 236). The productive and constructive forms of imagination should be "an orderly, methodical bringing together and arranging of parts in a new organic whole" (Sully, 1892, p. 227). The process of the right imagination then begun to be sequentially described:

"Thus, in trying to imagine a new experience, say a day in a country house, a child starts with a crude idea of what it is like, based on a revival of previous analog experiences. [...] The selective action of voluntary

attention here comes in, rejecting what is recognized as unfitting and incongruous, and furthering the reinstatement of what is then suitable" (Sully, 1892, p. 228).

The dangers of imagination began when the mind started to become a prisoner of apparent freedom. The powers of imagination could transport the child or the adult to another world and, among all the faculties, imagination was theorized as the one "least able to be tamed" (Kant, 2012, p. 386). The "power of imagination can be very harmful" (Kant, 2012, p. 386), wrote Immanuel Kant. Vices were committed, according to him, "because the power of imagination embellishes it for us and adds a false charm to the thing" (Kant, 2012, p. 386).

More intensively, knowledge would allow for a well-fitted imagination in which every capricious impulse of the child became regulated. This was conceptualized as the normal course of development and, noted Sully, it would be "a mistake to suppose that imagination no longer thrives when these primitive activities become circumscribed" (1892, p. 239). What was dignified as the energy of childish imagination, noted Sully, was "merely the result of the absence of knowledge" (1892, p. 239). Western educational thinking needed to constitute the 'Other', and the child as an 'Other', for its internal logic to work. However, because that 'Other' was too threatening, the only means of control was to impose limits on that deemed a good way of imagining. "It is to be noted that the child or the savage who is able to weave some picturesque myth could not form a clear mental picture" of what was being described to them (Sully, 1892, p. 239). The desired

imagination should be methodically disciplined "to extend the range of our knowledge" and "to widen and vary the region of aesthetic enjoyment" (Sully, 1892, p. 239).

Order was then the word for applying to children's imagination. This was the order of "regulated imagination". It was only because this regulated imagination was of value to the child's education that Earl Barnes would advise against encouraging mere dreaming. Painting, poetry, drama, and novels might serve as the means of restricting the limits of children's imagination. If "these creative arts are well selected they lift [...] all who share them, to a life of deepest significance" (Barnes, 1914, p. 26).

Therefore, imagination could be free only within the borders of the selected activities and motifs. The aesthetic feelings became the field where imagination could prosper, as they would lift "the mind of the child above things purely material", and thus, elevated it "gradually toward the enjoyments of art" (Compayré, 1893, p. 60). Let us, advised the French educationalist, "nourish the imagination of the child with noble images" (Compayré, 1893, p. 74). One other form of regulating imagination was through drawing, particularly as a substitute for more dangerous children's games that disconnect the child from a morally ordered world. These arts were technologies for policing the self of the child (Martins, 2013). "We must furnish the imagination", concluded Gabriel Compayré, "with substantial aliment, such as beautiful verses which have been learned by heart, and grand deeds which occur to the memory the instant the mind has a moment's leisure" (Compayré, 1887, p. 157). Reverie would be the indolence of thought; imagination, as the other faculties, had to have work to do.

Nature also appeared within this scope for taming children's imagination and creativity. Nature allowed for an excitement of the senses but differing from the excitement that images or words could provoke. For example, Rousseau's proposal of a return to nature was referred to as the possibility of recovering from madness, and madness was, not rarely, related to the overexcitement of imagination. In nature and its virtues, "what cured madness was pleasure – but a pleasure which exposed the vanity of desire without being forced to repress it, as it offered a plenitude of satisfaction in advance, and which made imagination derisory by spontaneously providing the happy presence of reality" (Foucault, 2006, p. 335). Nature was, thus, the right measure of reality. While releasing the subject from the bonds of civilization and social constraints, nature was, in itself, a therapeutical and moral technology:

"Remote imaginings were dismissed, together with all that was overly urgent in desire. In the sweetness of a pleasure that does not constrain, men were linked to the wisdom of nature, and that fidelity in the form of liberty caused unreason to disappear, which juxtaposed in its paradox the extreme determinism of passion and the extreme fantasies of the image. In these mental lands-capes, where ethics were juxtaposed with medicine, the dream was of a liberation from madness. A liberation not to be understood in its origins as the discovery by philanthropy of the humanity of the mad, but rather as a desire to open madness to the sweet constraints of nature" (Foucault, 2006, p. 336).

The greater the restraints on children, the greater their imaginations might wander. Nature and the senses forced a confrontation between imagination and reality, which was certainly one of its pedagogical and moral goals. Michel Foucault quotes Tissot, a disciple of Jean Jacques Rousseau, to convey how a return to nature was experienced within medical practices as a 'ritual sense of purification'. This would mean the 'rebirth' of the subject that took shape through practices including a return to a natural state through immersion (Foucault, 2006, p. 313). We begin to arrive at a point where we realize that children's imagination found its government in the practices of inciting the imagination! This is also part of the historical ambiguities surrounding imagination. 'To have it for us than against us', as stated by Compayré. Considered important and simultaneously threatening, imagination is constantly talked, defined, kept under vigilance, rather than repressed. As a discursive field, creativity and imagination work as a straightening device aiming to maintain children within the borders whether they were in contact with nature, developing their senses, articulating play or engaged in creative practices such as drawing. It was important to realize that if imagination would naturally give way to the complexity of reason, its seeds should carefully germinate in the child's life. It would be deplorable, wrote Élie Pecaut, "if this progress went beyond the just limit, and went so far as to strip the child of all spontaneity letting her insensible and cold" (1887, p. 958).

The regulation of imagination corresponded to instructing children in a taste for poetry and art. While the field of

art, through the importance given to imagination as the possibility of the creative work, made imagination desirable, it also restrained imagination within education by giving imagination an object and a field to be expressed. A whole material world made up of educational, medical, and psychological speeches, toys, books, and spaces for children's play circumscribed the borders of an imaginative life imagined for the child. Imagination served to fabricate and differentiate different kinds of people, creating borders between them. Racist, sexist, classist and ableist discursivities and categories were given possibility through the discussion of imagination in children. The 'white', male, and non-disabled child as the desired creative child, even if not mentioned as such, was fabricated through the norms of imagination and its pathologizing discourses.

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Vocabulary and Archival Materials
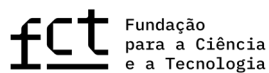
This vocabulary seeks to situate some of the concepts that, throughout CREAT_ED, have proven to be fundamental for thinking about the archive of the creative child and the historicization of this child. The concepts are not closed definitions but rather ways of intersecting and questioning historical materialities in their encounter with the present and how we look at the possibilities of a critical arts education. The four exploratory lines of the project, and the ways of problematizing the creative child, inform how we grasp the concepts and mobilize them. In some cases, the reader will also have access to some of the materials that will be present in our online timeline; some are also used in the several texts of the book. We are not being exhaustive, but we tried to place some of the archival material here as a kind of extension of the texts, a bridge to the concepts, and an invitation to a more extended encounter with the materialities of the archive. Including some of these materials after one concept and not another was not always an easy decision. However, after contextualizing the material, the reader will have other remissions to follow.

TRIGGER WARNING: some of the quotations present in this vocabulary contain problematic and racist terms.

[[Ableism]]

Ableism is a system that discriminates against disabled people. When we refer to the creative child as a non-disabled child, it means that, discursively, the creative child was imagined as non-disabled. Ableist metaphors, adjectivations, and analogies were used to describe the too-imaginative child. For instance, the child with an 'unbalanced '[[imagination]] was close to certain mental illnesses, such as madness, and condemned to unhappiness. This child was characterized as having a diseased imagination. As such, when talking about an unbalanced imagination, the ableist metaphors convey prejudices about people with disabilities or even summon ableist fantasies, which accentuate the binary between reason and ignorance or romanticize it (as is the case of the positive connotations between the 'true' nature of genius with madness).

[[Archive]]

The archive is not a neutral place. It is made up of materials that were chosen to be preserved. The materials presented here are part of the archive of the creative child. This archive comprises materials mainly produced in Europe and North America from the end of the 18th century to the Post-World War II. The creative child is fabricated within these discursive formations. This archive is part of the [[colonialities]] of arts education. The archive defines the limits and the (im)possibilities of what can be said. Working with and against the materials of this archive is embedded in the contradiction of these (im)possibilities.

[[Child art]]

At the turn of the 19th century, the graphic productions of children started to be looked at as 'art' by modern educators and artists. The category was made possible through the equivalences between the child and the so-called [['primitive']] and the child and the artist. The Othering of the child as the Othering of the non-European was an exoticizing gesture of the colonial matrix of power (Quijano, Aníbal (2007): Coloniality and Modernity/ Rationality). [[Children's drawings]] started to be collected and put side by side with the works of modern' white' male artists, such as Picasso, Klee, Kokoschka, Matisse, Dubuffet, etc. Within arts education discourses, the term child art, which is generally attributed to Franz Cizek, appears connected to the principle of free expression.
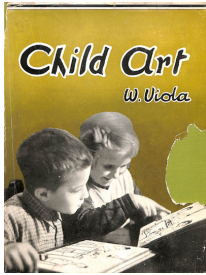
Child Art (1942) by Wilhelm Viola

The book from Wilhelm Viola is about the art education methods of the Austrian Franz Cizek. It starts with the history of 'child art' as being the history of the discovery of the child "as a human being with his own personality and his own particular laws", and the importance of Cizek in perceiving the child's nature. There are several colonialities of thought present throughout the text: a primitivist view of the child; the developmental way of reasoning about children; the whiteness that is not mentioned, although gives sense to the examples given and the subject positions involved; the gardening metaphors used to talk about children's growing; the adultist and ableist perspectives; a western European framing of art; the relativization, exoticization, and objectification of non-European cultures. These colonialities are embeeded in the discourse as givens that use the figure of the 'Other' for the construction of the 'white' creative child. We extract one fragment:

"The best way to understand Child Art is to study primitive art, both of races that lived tens of thousands of years ago and the art of living primitives. The most superficial observer must be struck by the similarity between the art of the primitive man and Child Art. In both there is a lack of perspective, of the third dimension, except in Negro sculpture, of shadows; in both there is an inability to represent space. Proportions are different from ours. […] But the optical memory of primitive and child is enormous. Their eyes are better than ours. They see details which we never see, but details only, not the whole. Both produce from imagination"

— How close or how distant are you from Viola's statements?
— Have you ever thought how the articulation of the child and creativity was made through a coloniality of thought?
— Observe both covers of the book and try to analyze the symbolic layers of the representations.

References: coloniality; straightening devices; primitivism; ableism; whiteness; child art.
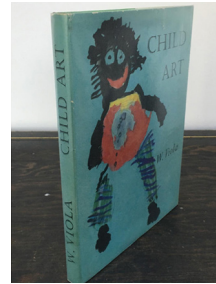
Children as Artists (1947) by R.R. Tomlinson

R.R. Tomlinson was a Senior Inspector of Art to the London County Council. The book was published in 1947, and the author starts by saying that the book's title would have been facetious one generation ago. He was referring to how most adults, even art educators, would have received children's drawings and paints. However, "owing to the courage and tenacity of pioneer teachers [he will be quoting, among others, Friedrich Froebel, Wesley Dow, Thomas Ablett, Marion Richardson, Franz Cizek] and the fuller understanding by the general public of modern developments in painting, all but a few will today accept the title of this book without question." Tomlinson continued his writing by articulating the argument that since the last decades of the 19th century, have been fabricated to make sense of children's artistic productions and development: the equation of the child's graphic marks with those deemed 'primitive'. Studying children's art was said to be essential to know more about the history of the race and the adult's mind. The process implied generalization, objectification, and

simplification, translating the epistemic and cognitive violence inherent to arts education discursivities. He wrote:

"The similarity between the unsophisticated work of children today in all civilised countries and that of primitive peoples leads to the conclusion that the means and modes of expression in both graphics and plastic forms are inherent in the human race. The recapitulation theory, the belief that the development of the child follows somewhat the same course as the history of the race, may or may not have been conclusively vindicated, but it seems true that in dealing with children we are dealing with little primitive people. The term primitive is used with reference to two distinct groups. It is used by the ethnographer to describe uncivilised people, and by the art historian to denote the early stages of a well defined school of painting. When used n the latter sense it is most commonly applied to the Italian school at the time of Cimabue and Giotto. Primitives of both groups, however, resemble children in one essential respect: n their artistic urge to explore with zeal entirely new paths untutored and unaided".

The child's arts and development were mirrored through the recapitulationist theories; the history of humanity was explained through the figure of the child; and the equation of the child and the 'primitive' created the conceptual space in which they were put as inferior, yet seductive, and governable.
References: child art; child development; recapitulation theory; 'primitive'; coloniality.

[[Child development]]

The notion that children 'develop' is a modern notion through an idea of time towards a future. This temporality takes development and progress (of children, of humanity, and the nation; see [[recapitulation theory]]) as inevitable. The modern conceptualization of history as past, present, and future was based on an arrow of time, in which the past represented the less developed and the future represented the further developed. The new sciences of education that emerged during the 19th century took this evolutionist rationale to think about the child. Development was one of the technologies used to construct the 'white', male child as natural and universal. Developmentalism is thus the rationale that separates the child from the adult based on binary oppositions such as nature/civilization. The child, as close to [[nature]], and thus to 'origin', made the senses (see [[education of the senses]]) and their taming as the raw material of education. Modern progressive arts education was based on this notion that, again, separated the child (as nature) from the adult (as reasoning).

This book reports a study inspired by a survey that had taken place in Berlin, in 1869, about what children knew when entering schools. Stanley Hall, the North American educationalist of the Child Study Movement, decided to apply the same experiment in Boston, USA, in 1880. For that, "a list of questions suitable for obtaining an inventory of the contents of the minds of children of average intelligence on entering the primary schools of that city" was prepared. The study aligns with the emergence and proliferation of statistical reasoning to produce knowledge about several objects, children included. The drawing was one of the instruments mobilized for fabricating 'data.' From several hundred drawings, it was possible to establish some patterns and provide the readers with knowledge about children's minds and their development. This study provides one of the first descriptions of child development according to an idea of stages of development through graphic registers. To the American educationalist, the earliest and simplest representation made by the child was

"a round head, two eyes and legs. Later comes mouth, then nose, then hair, then ears. Arms like legs first grow directly from the head, rarely from the legs, and are seldom fingerless, though sometimes it is doubtful whether several arms or fingers from head and legs without arms are meant. Of 44 human heads only 9 are in profile. This is one of the main analogies with

the rock and cave drawings. [...] Last, as least mobile and thus attracting least attention, comes the body; first round like the head, then elongated, sometimes prodigiously, and sometimes articulated into several compartments, and in three cases divided, the upper part of the figure being in one place and the lower in another. The mind, and not the eye alone, is addressed, for the body is drawn and then the clothes are drawn on it (as the child dresses), diaphanous and only in outline. Most draw living objects except the kindergarten children, who draw their patterns. [...] The very earliest pencillings, commonly of three-year-old children, are mere marks to and fro, often nearly in the same line".

A particular image of how the 'right' child would develop is traced from here. This was one of the first conceptualizations of the child's stages of development in drawing through the linearity of time. It provided a 'map' that ordered, through psychological lenses, the well-developed child and her stair-case progress.

References: child development; children's drawings.

[[Children's drawings]]

With the emergence of the educational sciences and psychology, children and their graphic marks were used to produce knowledge about the child. Children's drawings emerged as empirical objects to be studied by psychologists and educators. Collecting drawings made by children became a practice that was aligned with the new statistical way of reasoning that allowed for the demarcation of a normal childhood and its 'Others'.

Kinds als Künstler (1905) by Levinstein

From the 1870s onwards, children's drawings started to be systematically collected and analyzed by child psychologists as part of the child's mental growth process. Drawing as an instrument to study the child's mind soon created an equivalence between what the child was (the drawings mirroring her mental processes) and what she should become. By the end of the 19th century, Corrado Ricci, in Italy, collected more than one thousand drawings. In England, James Sully conducted extensive inquiries to enhance a theory of children's drawing through a staged approach. In 1893, Earl Barnes made a study based on 6393 drawings of children. In 1906, Lamprecht, in Germany, coordinated a study involving several countries (Belgium, Sweden, Italy, England, Russia, Japan, India, African countries, and the United States) that gave rise to thousands of drawings. Edouard Claparéde, in Switzerland, was another pedagogue that analyzed the drawings of approximately

3,000 pupils. In Brazil, Mário de Andrade collected more than 2000 drawings of children.

Collecting children's drawings spread as a practice for studying the child while it also created a visual grammar of what was child art and how the child developed through drawing stages. At the beginning of the 20th century, to count, measure, and find patterns and laws in the child's development through drawing was a demand for the scientification of the child (Martins, 2018). It was not rare, by the end of the articles or in books, to invite the readers to send to the author more drawings of children. In Germany, on the occasion of the publication of Levinstein's book Kind als Künstler, Karl Lamprecht made the same ask and provided a detailed framework for the exercises. The announcement appeared in the last pages of the book. It was explained that child-study was able to "help materially in making comparative studies in the history of civilization of the various races of man", and therefore it was necessary "to collect, study and preserve great quantities of material, that will make it possible to study the mental development of children" (Levinstein, 1905, p. XI). The psychologist intended to collect drawings from all over the world, "whether the children be black, white or brown, so as to make a huge comparative study" (Levinstein, 1905, p. XI). Lamprecht promised the readers that this task would prove the most exciting and useful for their work. The exercise was prescribed as follows:

 "1. Wherever possible, each drawing should be on a separate piece of paper.
2. Each paper should have the name, age and sex of the

child marked in the left-hand top-corner. If possible the position or trade of its father and a general remark on the child's mental abilities.
3. Let children draw with whatever they like, pencil, crayons, watercolors, ink, or anything else.
4. Send in all the pictures drawn, good, bad, and indifferent. The worst are often the most instructive, and this is in no sense a test of the children's ability to draw as seen from the artist's point of view.
5. Careful notes should be made on the back of drawings in every case where the drawing does not explain itself.
6. Every parcel of drawings should be accompanied by a note saying whether the drawings were from memory or whether there was a model. Also by what system children are taught drawing and whether they are accustomed to draw during object lessons or not" (Levinstein, 1905, p. XII)

Following these instructions, Lamprecht designed four groups of exercises: spontaneous drawings, special drawings, biological series drawings, and drawings of adults. The 'child-as-primitive' and the construction of visual affinities between children's drawings and those of racialized persons made it possible to compare the 'white' child with the racialized 'Others'. In this last group, he specified he was waiting for drawings done by "adult Negroes, Indians, Eskimos, South Sea Islanders and so forth" (Levinstein, 1905, p. XIV). The ways that framed how data was being collected, classified, and represented, as well as the parameters that allowed the comparison

between the western children and the non-western adults, were not neutral. Under the objectivity of the scientific lens, drawing was being constructed as a colonial tool to make and differentiate different kinds of people and hierarchies among them.

References: children's drawings; colonialities; 'primitive'.

Education through Art (1943) by Herbert Read

First published in 1943, *Education through Art* by Herbert Read is still considered one of the urtexts of arts education today. The text was translated into several languages and influenced arts education practices in many contexts.

"The argument of this book is that the purpose of education, as of art, should be to preserve the organic wholeness of man and of his mental faculties, so that as he passes from childhood to manhood, from savagery to civilisation, he nevertheless retains the unity of consciousness which is the only source of social harmony and individual happiness."

Rooted in the emergent fields of psychology and the educational sciences, Education through Art promotes the idea that children's drawings can be studied by psychologists and educators to assess their creative and mental abilities. These assessments were based on a typology of the child that constituted the possibility of deviant and normalized childhood, hinged on the modern notion of the child as developing and progressing.

Fig. 3
8, 5. Three Drawings, made at intervals of one month, showing progressive stages in the co-ordination of the schema. By a boy of retarded development (speech disability) probably due to shock. Speech disability improved with progressive co-ordination of schema.

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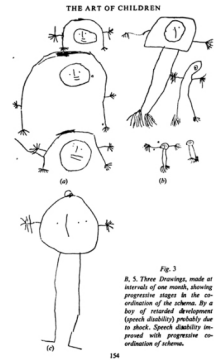
The linkage of developmentalism with recapitulation theory allowed educators and psychologists to equate the stages of development of an embryo of an animal to the development of the child as well as the evolution of societies. This, in turn, gave way to the equation of the child as 'primitive'. Visual affinities of children's drawings and the visual production by peoples who were rendered 'primitive' by the logic of coloniality were mobilized as evidence for those theories. Those visual affinities were amongst others the usage of 'basic' shapes such as lines and spirals.

"What is more significant for our present purpose is that this description of the savage's artistic activities agrees with our observations of the child's earliest artistic activities. He, too, draws lines and spirals and other geometrical marks and gives them a name; and he too will at different times attribute different meanings to the same scribble"
"The educator, then, begins with an insoluble mystery - the mind of the new-born infant. Empirical evidence, whether anthropological, physiological, or psychological, gives him precise indication of its nature. We find the same impulses in primitive tribes and in modern society; some of these impulses seem to be constant throughout human history, some appear to come and go, or to be given a widely differing degree of significance at different times. How these impulses arise and how they develop; which comes first and which is most natural – we have only to ask such questions to discover the complete relativity of the moral world."

"Children, like savages, like animals, experience life directly, not at a mental distance. In due time they must lose this primal innocence, put childish things away."

— Have you ever thought about the connection between so-called *'primitive'* art and children's drawings?
— Even though we do not use the term *'primitive'* anymore in our current arts educational discourses, can you recognize continuities of Herbert Read's thinking in contemporary practices?

References: children's drawings; child development; *'primitive'*; coloniality.

[[Coloniality/Colonialities]]

Coloniality is the epistemic violence that constructs subjectivities (coloniality of being) and knowledge (coloniality of knowledge). We use the concept of coloniality, borrowing it from Aníbal Quijano (2007, Coloniality and Modernity/Rationality). Coloniality is not the same as colonialism, but a continuation, through the colonialization of the mind and knowledge of its power structures. When we talk about the colonialities that structure arts education discursive practices, we are referring to, for instance: the hegemonic ways through which the child continues to be addressed as a developmental being (learns from the senses [[education of the senses]], from the simple to the complex, to achieve reason - the adult state as a citizen of the 'nation'); the notion that the child is naturally creative (as is imagined as closer to [[nature]], and thus, to a [['primitive']] state); the ways through which, in drawing, for example, the child is said to develop through stages of development [[child development]] (whose rationality is the same of the nineteenth-century recapitulationist rationale [[recapitulationist theory]]); the ways through which 'art' and 'education' continue to enact a paternalism in terms of assuming what is good for the 'Others' (being these 'Others' the child, but also all those that are represented by the power structures as in need to be 'civilized'). Part of the coloniality of arts education practices is also the unquestioned notion of the developmental and creative child as natural and universal. This is the 'white' child that had/has the 'white', male, European, middle-class, heterosexual, non-disabled adult as a model.

Unesco Courier (1951)

This Edition of *Unesco's Courier* from 1951 is mainly dedicated to arts education. The cover represents two children painting on an easel with brushes and paintings. The bottom right side of the picture calls the reader's attention to the fact that 'children are creative artists' and invites the reading of the dossier inside. The articles insist on articulating children and creativity based on a modernist view of the arts. The easel, the brushes, paints, and the outside space remind of impressionism, as the painting productions of children reminds of expressionism. Several photographs of children's drawings and paintings, and children contemplating art illustrate the articles. The articulation of children with artists is complexified by the layers of the images and the language used to describe the arts and children's productions. Children are presented as 'innocent', devoid of reason, compared to the 'primitive', and thus, with an emotional force that art helps to express. The creative child is represented as 'white'. The only racialized child pictured in one photograph contemplates a work, and the subtitle says, 'block prints capture the child's own feelings'. The ways the creative child is configured is part of the colonialities of thought that still inform much of arts education discourses today. Colonialities is a notion from Anibal Quijano to designate the structures of thought that having routes in colonialism are endured until the present. Colonialities are constructed through racial, gender, class, and ableist categories that hierarchize people, privileging the hegemonic white, male, non-disabled, heteropatriarchy.

— Have you ever thought about how the creative child notion was constructed and how the issues of race, gender, class, and ableism are implied with it?
— When comparing children and artists which narratives are we activating?
— Have you ever thought about the connections of European impressionism and expressionism with colonialism?
References: coloniality; 'primitive'.

A Comparative Study of the Play Activities of Adult Savages and Civilized Children (1910) by L.E.Appleton

This book was submitted to the Faculty of the Graduate School of Arts and Literature at the University of Chicago by the candidate Lilla Estelle Appleton to obtain the degree of Doctor of Philosophy. As the title makes evident, the study is made through the equivalence of the child with the 'savage', simultaneously making those so-called 'adult savages' comparable to the child. The title demonstrates the colonialities that constitute it in the categorization of certain kinds of people; in this case, children and 'savage' adults are considered minor subjects and, therefore, available for objectification and universalization by western science. The binary markers of savage/civilized, ignorance/knowledge, emotions/reason, and body/mind, among others, structure the analysis and the conclusions. Even if similar in play activities, the 'white' western child becomes more complex and intellectual. The thought that 'savage' adults and children shared the same conceptual space allowed the equivalence and comparison between

children and adults. The opposite of this equation would not be possible in this colonial matrix of power.

— Which assumptions do I activate when I presuppose that childhood times are times of play and not of reason?
— Which prejudices and/or romanticized views am I projecting on the figure of the child?
References: coloniality; 'primitive'.

[[Creativity]]

Creativity is seen as part of the child's nature, becoming a matter of potential to be actualized or not through education. CREAT_ED seeks to historically understand how an idea of the child as a creative being became an almost unquestionable spot in education. Creativity had to emerge as a problem and anxiety in education to become an educational goal. The making of the creative child is accompanied by the hope of a better future and the fear of the citizen that does not fit within the category.

Creativity: Yesterday, Today and Tomorrow (1967) by J. P. Guilford

The study of the creative mind and ways of measuring and increasing creativity emerged as the right mixture of nature and science by the times of post-World War II. The child became a focus for psychological investment in creativity. What was in question, particularly in the

United States, was promoting the open-minded citizen in opposition to the authoritarian one. At the same time, creativity became a commodity presented to educators and parents as absolutely necessary.

In 1967, Guilford, one of the most prominent names in the study of creativity during and after the Second World War, opening the pages of the new Journal of Creative Behavior, stated that several forces were at work by the end of the war. The war

"had called forth great efforts toward innovation in research and development, culminating in the atomic bomb. . . . We were on the eve of the space age, and rockets were already taking trial flights, stirring our imaginations of things to come".

The stage was well set; in Guilford's words, on the one hand, is the idea of change toward an unknown and, on the other hand, is the explosion of concern in science for investigating creative processes and detecting creative traits to master better the production of what was yet to come and of a specific kind of creative human. This human was driven by moral principles, not only in terms of the government of society and the nation's exceptionalism but also through the ways of reasoning from psychologists themselves and the tools available and chosen to produce the knowledge that counted about this creative human. The rationality of post–World War II science was part of a way of reasoning through a theory of systems, in which a cause produces an effect that must be known in advance and not left to human reason alone. A side of creativity

lies between the two poles of reason and rationality. Thus, creativity was conceived as part of human reasoning that was tamed through science to become more 'rational.'
 References: creativity; mind.

Creativity (1950) by J. P. Guilford

Guilford, when discussing creativity, in his 1950 text Creativity focuses on the individual level, and, interested in observing, measuring and understanding individual differences, he looks at the idea of a creative personality - "a unique pattern of traits", defined as "aptitudes, interests, attitudes, and temperamental qualities" which would be important to understand how creative results were produced (Guilford, 1950, p. 444) - with two main concerns in mind: i) how to better discover creative promise in children and youth; ii) how to promote the development of creative personalities. For that, the text proposes ways, research design wise, and suggestions, of how to move the field forward. That would require constructing adequate tests and hypotheses. Set to create a picture of the state of the field, and advancing proposals for a research agenda, he advances some hypotheses "concerning the nature of creative thinking (...) with certain types of creative people in mind: the scientist and the technologist, including the inventor" (Guilford, 1950, p. 451). These focus on the kind of abilities that may be involved in the different steps involved in producing creative acts. These steps - 1) "the creator begins with a period of preparation, devoted to an inspection of his problem and a collection of information or material."; 2) "follows a period of incubation" where

activity is mostly unconscious; 3) "eventually comes the big moment of inspiration, with a final, or semi-final, solution, often accompanied by strong emotion"; and 4) "a period of evaluation or verification, in which the creator tests the solution or examines the product for its fitness or value" (Guilford, 1950, p. 451) - follow a cognitive rational script and the same underlying logic is present in those that are the hypothesized relevant abilities involved in creative productivity: sensitivity to problems (involving curiosity and openness to the situation and to ask questions); fluency (as in having the ability to produce a large number of ideas); novel ideas (or the ability to come up with uncommon yet acceptable responses); flexibility; synthesizing and analysing abilities as well as redefinition and reorganing abilities (all concerned with relating and organizing elements); abilities to deal with complexity and resist confusion; and evaluation ability (to ponder what may be realistic or acceptable). This work is marked by an underlying concern with individuals productive in their creativity, productive understandings of what makes individuals creative, and with productive forms of creativity (e.g. invention and technological innovation, solutions to social problems).

Creativity is instrumental to deal with present and future needs and challenges, to find technical and creative solutions to problems that (will) require going beyond mastered techniques, and to think unlike machines:

"We hear much these days about the remarkable new thinking machines. We are told that these machines can be made to take over much of men's thinking

and that the routine thinking of many industries will eventually be done without the employment of human brains. We are told that this will entail an industrial revolution that will pale into insignificance the first industrial revolution. The first one made man's muscles relatively useless; the second one is expected to make man's brain also relatively useless. There are several implications in these possibilities that bear upon the importance of creative thinking. In the first place, it would be necessary to develop an economic order in which sufficient employment and wage earning would still be available. This would require creative thinking of an unusual order and speed. In the second place, eventually about the only economic value of brains left would be in the creative thinking of which they are capable. Presumably, there would still be need for human brains to operate the machines and to invent better ones." (Guilford, 1950, p. 446).
<u>References: creativity.</u>

<u>Can Creativity Be Developed?</u>
<u>(1958) by J. P. Guilford</u>

The paper, published in 1958 in Art Education after an address prepared for presentation to the Pacific Arts Association, is set against a discourse of crisis, a crisis in (western, american, urban) societies that is derived from an expansion of technological solutions and their presence in everyday life. That crisis is intensified by automation, gadgets and specialized services, and produces the alie- nation of people from many everyday challenges and

"the joy of mastery over problems" (Guilford, 1958, p. 4). Two things are particularly interesting to point out in this paper. One is the suggestion that imagination and creative abilities could (foster technical progress) and be useful to build solutions for social relations and political organization: "Imagination in dealing with one's fellows is greatly needed at the personal level, in local and national politics, and on the international scene.

Technical progress has made possible a broader margin of survival. The same amount of inventive genius has not been shown in connection with the operations of living together." (Guilford, 1958, p. 5). The other is the appearance, description and integration of the concept of divergent thinking as related to creativity. Creativity is presented as an aspect of intellect for which different abilities may concur, and which depends on different kinds of operations to be performed. Particular emphasis is placed in productive thinking and its two classes of abilities: convergent thinking and divergent thinking. Since divergent thinking more frequently leads to unconventional results, "it is in the divergent-thinking category that we find the abilities most pertinent to creative thinking. It cannot be truthfully said that only divergent-thinking abilities contribute to creative production, for other categories of intellectual resources play their parts. It can be said that creative people are more likely to excel in the divergent-thinking abilities." (Guilford, 1958, p. 14). Divergent thinking abilities such as fluency, adaptive flexibility, originality and elaboration abilities are said to play a role.

The ideia that once we understand the abilities that are more relevant proper materials and methods can be

devised is present and connects with the idea that exercises in creative thinking, and opportunities to engage with them, may be introduced not only art, where students "are expected to be creative", but also in other areas where "creative performance" needs improvement (Guilford, 1958, p. 16). Still, art may have a special contribution, "[g]ranting that instruction in art offers numerous opportunities to teach habits of creativity" (Guilford, 1958, p. 18) that can have effects in (or transfer to) other areas of life. From this, several education and training contexts and technologies appeared devoted to the development of creativity: "special courses designed to improve creativity have been given, by teachers in various fields. The number of such courses has increased enormously during the past few years. (...) Such courses have ususally consisted in lectures on the nature of creativity and on exercises in creative thinking and problem solving" (Guilford, 1958, p. 16). Such courses and technologies, following similar undelying discourses and hopes, have continued until today.

References: creativity.

Imagination and Creativity in Childhood (2004) by L.S. Vygotsky

Creative acts (acts that give rise to something new) are opposed to reproductive acts (acts that reproduce or repeat, more or less accurately, something that already existed, behavior patterns that had already been mastered, etc.). This ability to imagine and create orients human beings towards the future, something different from what is,

towards "creating the future and thus altering his own present" (Vygotsky, 2004, p. 9). This makes imagination important to all aspects of cultural life (artistic, scientific or technical).

Affirming it as universal and inherently human, central to how humans relate to their natural and cultural environments, for Vygotsky creativity and imagination are differentiated along development lines - "It does not develop all at once, but very slowly and gradually evolves from more elementary and simpler forms into more complex ones." (Vygotsky, 2004, pp. 12–13) - and it is dependent, because of its combinatorial nature, on prior experience and the internalization of cultural tools.

The author describes a developmental movement from the ludic to the productive, from toying around to seriously engage with something. In fact, emphasis is placed on how creativity also develops in the area of technology, and how "[c]hildren who attempt to master the process of scientific and technological creativity are relying on the creative imagination to the same extent as in the area of artistic creation." (Vygotsky, 2004, p. 87). This adds to the importance of creativity and imaginations. Future oriented, the productive forms of scientific and technological creativity bring the focus to the creation and the production of a world and a future and this makes up "the particular importance of cultivating creativity in school-age children. The entire future of humanity will be attained through the creative imagination; orientation to the future, behavior based on the future and derived from this future, is the most important function of the imagination. (…). The development of a creative individual, one who strives for the future, is enabled

by creative imagination embodied in the present" (Vygotsky, 2004, pp. 87–88). Who are those who imagine the future, and how (and how not) is this activity supposed to happen? Vygotsky emphasizes the role collective history and social and cultural environment have in the opportunities and possibilities for creativity. This means that not all have the same conditions to create or be creative, and that creativity is never individual in a strict sense. More than he may be aware of, his explanation provides a clear illustration of how creations dialogue and re/produce social and historical discourses - the examples he brings, contrasting the creative possibilities and opportunities of primitive and civilized people, of differentially privileged classes (often dialoguing with other authors of his time, particularly Ribot) follow the dominant colonial, eurocentric and classist narratives and power lines of his (and our) time.

Reference: creativity.

Complexity-simplicity as a personality dimension (1953) by F. Barron

Psychological tests of creativity, like IQ tests, allowed for the ranking of different kinds of people (Cohen-Cole, 2009). Guilford talked about the need to construct tests that could measure individuals' creative abilities, considering other creative individuals. He was not alone. This comparative way of reasoning about individuals was making the creative person and crystalizing its characteristics through certain kinds of expected behaviors that produced differences among different people. Creative people, for instance, were more likely to enjoy modern art, particularly abstract

expressionism. The artists, the psychologist Frank Barron explained, "liked figures free-hand rather than ruled, and rather restless and moving in the general effect" (Barron, 1953 , p. 164). The figures enjoyed by the non-artists were classified by the creatives as "static," "dull," and "uninteresting." Barron was reporting the results of the Barron-Welsh Art Scale, a figure preference test that aimed to search for measures of the ability to discriminate "good from the poor in artistic productions" (Barron, 1953 , p. 164). The test was composed of an adjective checklist, from which the participant had to select those adjectives which they thought described themselves and of 105 postcard-size reproductions in color of European artworks. Based on the obtained results, two kinds of people emerged: the simple and the complex. This was due to, Barron explained, a level of complexity, flexibility, and openness to the new that only creatives possessed:

"The preference for Complexity is clearly associated with originality, artistic expression, and excellence of aesthetic judgment.... The Complex person is seen as more original.... Complexity is also related to Basic Good Taste as measured by a test which presents various alternative arrangements of formal design elements.... What can be said is that originality and artistic creativeness and discrimination are related to the preference for complexity."

The tests produced data as evidence, and with this, different kinds of people were becoming possible. The characters were not free of moral judgments. The highly creative

person was complex, in opposition to the simple person. Geographically situated in the United States, in Barron's study, two brains were in dispute: the authoritarian brain was representational, and the creative mind was performative and adaptive to unexpected situations, and it was at least said to be open to diversity. Abstract expressionism, as it suppressed representation, represented freedom of expression in an open society. Simultaneously, this was the kind of art that was prohibited by the "Hitlers" and "Stalins" (Cockroft, 1974). Creativity was thus fabricated, having specific kinds of people in its agenda, and worked as a classification that was based on individual capacities that marked the line between inclusion and exclusion. References: creativity; mind.

[[Education of the senses]]

The senses have been of great concern in education. Thereby the determination of five senses as well as the division of the senses as associated with the body and rational judgement associated with the mind are produced by [[colonialities]]. Sensuous experience was deemed of a 'lower' kind from which rational, abstract thinking could be developed. As such, the training of the senses as part of governing the child is entangled with [[child development]] and the [[recapitulation theory]]. The turn towards sensorial learning through the contact and interaction with the material world has led to a proliferation of materialities, for example toys and games, within arts education and education at large.

[[Event]]

We look to the creative child as an event. If we do not take the creative child as natural, instead as a fabrication, then inseparable from this way of understanding this fabrication of a certain kind of people (Hacking, Ian (2006): *Kinds of People: Moving Targets*) is this making as an 'event'. In this project, the idea of the creative child as a natural occurrence, or creativity as an essence that is natural to childhood, is considered to be 'eventful'. This 'eventualizing' of the child as creative is to ask about it as an effect of historical practices and power relations, to access the multiple lines that compose what we today conceive as the creative child, its rules of formation and enunciations. Some of its meanings are lost through time, some are changed, contradictions and specificities coexist, and all of them are part of the ways of reasoning about the creative child as [[history of the present]]. Considering the creative child as an event presupposes that we treat discourse in its materiality and irruption. Discourse is not being used as a descriptor of reality but as a producer of that reality. As such, the creative child as an 'event' is made up of several layers that become invisible in the present, making this present possible.

[[Gardening Practices of Education]]

Arts education discourse is full of metaphors coming from the botanical world. We have been interested in understanding how these metaphors (the child as a seed or as a plant) have moral and political implications in terms of the government of children. But not only: these metaphors start from a developmental approach in terms of conceiving the child [[child development]]. The educator as a gardener has the task of conducting the 'right' development of the child, as a botanical tutor to plants. The idea of growth was precisely first applied to plants, progressively being applied also to animals and the human person. The idea of development, on the other hand, has a more recent use, but since the end of the 18th century, it has been associated with a gradual process of unfolding and an advance through progressive stages. As Kathryn Stockton puts it, the idea of growth presupposes verticality, the idea of development presupposes linearity. The child grows not only in stature but according to a linear behaviour. The willful child (Ahmed, Sara (2014): *Wilfull Subjects*) would be the one that queerized the idea of a 'natural' gradual and linear development. Developmental theories of the child seek to nullify the child who 'grows sideways' and in different directions.

[[Exoticism]]

We use exoticism to refer to the act of gazing and classifying the 'Other' as unusual, and thus, exciting for the Western mind. Exoticism played an important role in modern arts and literature, picturing the 'Other' as 'exotic', closer to nature, and 'authentic'. The act of exoticizing is an objectifying practice, which reduces those that are the subjects of that practice to 'curiosities'. At the same time, such as with the concept of the 'primitive', the invention of the 'exotic' was for the construction of a Western self. This term can also be related to Edward Said's concept of 'Orientalism', as the web of discourses produced by the Occident about the Orient. Said wrote: "Taking the late eighteenth century as a very roughly defined starting point Orientalism can be discussed and analyzed as the corporate institution for dealing with the Orient—dealing with it by making statements about it, authorizing views of it, describing it, by teaching it, settling it, ruling over it: in short, Orientalism as a Western style for dominating, restructuring, and having authority over the Orient" (Said, Edward (1978): Orientalism).

Artista e Designer (1971) by Bruno Munari

Bruno Munari's concept of creativity encompassed ideas such as dexterity & acquaintance, experimentation & investigation, collectivity, relatedness and problem-solving. In his book *Fantasia*, the author expands the significance attributed to creativity, noting on how to stimulate creativity correctly, and simultaneously making clear how erroneous albeit usual some individual and educational habits are in terms of triggering creative practices.

Furthermore, and derived from this, a positive acknowledgment is roundly associated with being creative, and with creative environments. Munari projected his Laboratories (e.g. Tactile Workshops) as an example of a stimulating space; but he further extended the same willful and inspecting eye to the analysis of reality around, on a day-to-day scale. As a result, housing became an important and ubiquitous theme on Munari's rhetoric on the uses of creativity, where he was able to inquire about the universal utility of design on solving house-related problems, as much as he was predicative on normatizing housing decor and functionality. According to Munari, the functional house is the ideal house, and thus functionality was soon related to a certain moral level to be achieved by the civilized (and the creative) person, as he compares the houses of low classes to those of the Japanese (in general!). The first were helpless and nasty, sheltering the poor, the unloveable and unaccomplished people, while the organized, airy, geometric Japanese- style houses were home for the happy and the good people.

For the third line of the project a few of these notions

were particularly ringing in terms of contributing to the definition of the problematic of a good way of living, and on how it would find precepts and pedagogical equivalents in the viralization of good design practices and theories. In effect, this excerpt of Munari's considerations on the vital role of minimalism, harmony and proportion, and functionalism are resonant to us, since these have become references in the teaching of visual education. After all, the right ways of reading and speaking the world have common grounds with the right ways of making up posters, book covers, industrial objects or dining room environments. Each of these is ruled by a hygienic approach where inessential things are to discard since they menace the absolute value of simplicity; subjectivity as individual style is to avoid since it endangers the desired universal functionality and collectivity. Following the civilizing Japanese example, and while geometry is regarded as an effective technology in the distribution of people and things in the domestic space, at the same time a cleaning attitude appears in the hope to eradicate the tacky taste, immorality, and the vicious mundanity of the populace, teaching them the values to live better lives in better houses - to eventually become better bourgeois persons, whose problems Munari acknowledges as 'everyone's problems', like:

"How many people do not know what furniture is suitable, do not know what is really needed, do not know how to solve the problem of lighting in an apartment, according to what is intended. They don't know which colors are suitable for each environment; they do

not know how to use living space without waste. They do not know how to distinguish the right object from the wrong object for a given purpose".

The celebration of the traditional Japanese house, related to the depreciation of the lower class environment ("this kind of house is made without love (...)", the equivalence of the first with a more developed and more successful state, must be perhaps one of the most evident examples of how the unmarked normality of whiteness is impregnated in Munari's rhetorics of good design and creativity. Yet other colonial reminiscences are to be disclosed through this example of the Japanese house, namely art education paternalism in terms of assuming what is good for the others - where minimalism might solve universal problems; or the white, Western, mid-class, non- disabled male as a model and reference for every space and subjective becoming.

The good (design & moral) becomes synonym with organized, ortogonal, restrained, functional, essential, minimal, as well as the light, the uncontaminated or the pure. The good life, allowed by good moral of the good design, is therefore present in the mid-class aspirations and in the white man personification. Assumed as unquestionable goals, these apparent universal desires have migrated and materialized in school grammars and syllabus of visual education, excluding all deviating versions for home interiors and rejecting alternative ways of thinking and communicating visually in a western culture.

The exoticized and artificialized (in terms of its utility) Nature in the background of a glass window is the

reinforcing framework of a narrative that imagines its narrator in the center. Traditional Japan is never presented as a trigger for decentering, but instead as an appropriated culture serving western flamboyance and thus arguably falling into the trap of tokenism.

— How is the organization of your space intended for specific subjectivities?
— Can we think of design as a non-paternalist practice, that is, as something that does not intend to teach users--who-don't-know-yet the good way to [something]?
— Does my perspective include everyone's problems? Are others' problems included in everyone's problems?
References: coloniality; whiteness; exoticism.

[[History of the Present]]

Michel Foucault (1980: *Nietzsche, Genealogy, History*) talked about an ontology of the present or a history of the present to understand the subjects we have become. Thomas Popkewitz (2013: Styles of Reason: Historicism, Historicising, and the History of Education) talks about historicizing instead of historicism. Historicization proposes a decentring of the subject as a way "to engage the complex intersections that produce principles that govern what is thought, talked about, seen, and felt in the making of the subject" (Popkewitz, 2013, p. 15). This is how we conceive of the creative child as an [[event]] that must be historicized. We do not look at history as a linear development through the arrow of time. This is why a history of the present is interested in finding the genealogies that make the present possible. It implies a particular relation to the [[archive]].

[[Imagination]]

During the 16th and 17th centuries, imagination was conceptualized as being a female characteristic and one that could be monstrous (Huet, Mary-Hélène (1993): *Monstrous Imagination*). The origins of monsters erased the male paternity at the same time that it stressed the dangerous power of female imagination. When, in the 18th century, the powers of imagination and creation started to be associated with the child, it was not still clear the gender of the child. Jean-Jacques Rousseau, in *Émile,* conceives imagination as dangerous for both -mile and Sophie. During the 19th century it becomes essentialized that children are imaginative and, progressively, in the educational realm, differentiations are produced about the good and the bad ways of imagining. The French pedagogue Gabriel Compayré, for example, defined imagination as synonymous with invention, but he immediately warned his readers that imagination was both the most useful and the most pernicious, the most brilliant but the most disastrous faculty of the spirit, for being the master of errors and falsehoods.

Émile (1762) by Jean Jacques Rousseau

The publication of *Émile* by Jean Jacques Rousseau was of great impact for the field of Western educational sciences. Even recognizing imagination as the most active faculty in the child, Rousseau clearly linked the overwhelming power of imagination to a state of unhappiness.

"As soon as his potential powers of mind begin to function, imagination, more powerful than all the rest, awakes, and precedes all the rest. It is imagination which enlarges the bounds of possibility for us, whether for good or ill, and therefore stimulates and feeds desires by the hope of satisfying them. But the object which seemed within our grasp flies quicker than we can follow; when we think we have grasped it, it transforms itself and is again far ahead of us. We no longer perceive the country we have traversed, and we think nothing of it; that which lies before us becomes vaster and stretches still before us. Thus we exhaust our strength, yet never reach our goal, and the nearer we are to pleasure, the further we are from happiness."

The image described by Rousseau was a fruitful trigger for the imagination of his readers. A scenario in which the imagination is potentially good, but whose uncontrol would result in a state of sadness because what was desired would never be achieved. The world of reality "has its bounds, the world of imagination is boundless", so, concluded Rousseau, "as we cannot enlarge the one, let us restrict the other". The hopes and fears of imagination are played at this affective extract, and the fear of what cannot be anticipated gains advantage. Within the fear of imagination is the troublemaker child, that child that was close to the mad and the insane, but also close to the sensibility and unreason of women. Indeed, in Emile the reference to the undesirability of an imaginative mind appeared also associated with women. In Rousseau's book, Sophy fell in love with Telemachus, and this imaginative story made her an "unhappy girl, overwhelmed with

her secret grief" and "devoted to her imaginary hero". The ever-wandering imaginations could be dangerous. The feelings of Sophy were part of an immersive and disorientating imagination, creating a scenario which was in disagreement with the reality and the horizons of possibility of that reality. To avoid a tragic and unhappy ending, Rousseau continues: "Let us give *Emile* his Sophy; let us restore this sweet girl to life and provide her with a less vivid imagination and a happier fate".

— Why was imagination felt as a fear?

— Can you find continuities and discontinuities in terms of considering imagination in relation to children?

References: imagination.

[[Innocence]]

One of the images of the child that prevailed since the end of the 18th century was that of children's innocence. Rousseau imagined the child as innocent, pure, and close to [[nature]], however, threatened by the evils of civilization. The innocent status of children participated in maintaining them in a not-yet space, under the gaze and the directives of the adult. In progressive arts education practices, the innocent children's nature was seen in need of protection, as this was the child who was naturally spontaneous and free from rules. Looking to the different constructions of children as innocent, one can observe that these are connected to moral, gender, racial, and class issues. The innocent child created its 'Others': the racialized child, the poor child, the deviant child, the liar child, etc.

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[[Interpolation]]

We understand interpolation as a gesture of interruption, intersection, juxtaposition of times and places. We reject the sense of automatic interpolation of restitution calculated in the space it opens. Through interpolation, we approach ourselves and approach events that were not close to each other before. We make close what an imperial history made distant, invisible, untouchable, through the ordering of times, spaces, subjects, etc. In interpolation, even the poles can unite and through it, we can also polarize. Interpolation: it can be historical, cartographic, archival, narrative, it is about the way in which an intrusion disposes what we interfere and how this interference constitutes us as intruders and interpolated. In terms of the actions in this project, it is about the possibility of introducing a gap, of opening a space (without necessarily having to fill it) in a timeline, in a program, in a glossary and assuming the consequences of the new arrangement. Interference, openness, empty or not, questions order, linearity, categorization, makes possible disorders, misreadings, sabotage, critical fabulations and other gestures to come.

[[Mind]]

The idea of a creative or imaginative child, emerging at the turn of the 18th to the 19th century, when reason became the sovereign value, cannot be disconnected from a conception of the mind anchored in that same value. Reason exists in [[nature]] and the mind must seek it, approach it and be it. Reason in the Enlightenment occupies the place of the divine. Cults and parties are erected in its honor, it is a goddess! Being outside the body and having the mind as its articulator, whatever the idea of reason being constructed, it relativizes the body when not excluding it. The cartesian mind-body dualism is not a separation, however, its distinction operated in social fragmentation. The study of the mind begins mainly with upper-middle-class children. The child's mind, its study and investigation is the key to the adult's mind, to understanding and governing it. That is, the child's mind has not become just an object of study, it is above all a construction of how that mind should evolve, from its [['primitive']] state to the adult state. However, the focus on the upper-middle-class child's mind makes clear the bodies that can 'evolve' and the adult that this child should be. The child's mind as a project of that adult and respective [[colonialities]] will also be found, in different dimensions, after the World War II. However, the conception of mind becomes involved in a new paradigm, the mind as computer. If at the time of the Enlightenment, unlike the body, the mind could not be seen as a machine and the laws of physics would not serve to study it, in the post-war period, the mind becomes comparable to a machine. Paradoxically,

through the dematerialization of the machine in Alan Turing's formula in which a computer is software, the mind also becomes subject to the laws of physics in what would become the fundamental framework in the study of cybernetics. The Enlightenment's project of reason reaches the form of a program in the 20th century — mind, science and [[nature]] are in harmony in that program.

Calculus Monument (1791) by Gaspard de Prony

During the century XVII, in the European Enlightenment, the search and application of new mathematical methods to describe the world and the universe, changed not only our perception of nature but also the perception of the human being and his capacities. The calculus appears as a mathematical method to describe physical activity. In an age full of ambiguities and contradictions, divine power and creation dissipate in human hands. The division that separates astrology from astronomy is an example of the way in which the laws of the universe were sought, in the divine and scientific dimensions. The calculus thus becomes a capacity of the 'genius', astrologer, astronomer or philosopher. If, initially, this methodology stood out as a science of change, more specifically, in the calculation of the movement of celestial bodies, later, its principles would be applied to social and human bodies. The Newtonian calculus would be explored along with Adam Smith's principles of the market and division of labor to describe the economy and the social world. From a governmentality perspective, it is not just a description,

but a constitution, a form of government that establishes ways of working, conduct and forms of life.

The calculus, rigor, objectivity and reason established became a fetish, achieving accuracy exacerbated its own function and applicability. *The Calculus Monument*, begun in 1791 by Gaspard De Prony, and condenses this paradigm very well. Originally conceived as a government commission for the cadastre of France, it was never to be used for that purpose. Financial costs and changes in the metric system would impede its applicability, but not its monumentality. Gigantic logarithmic tables were calculated by human computers from different social classes. Craftsmen joined mathematicians, in the words of De Prony: "quite singular gathering of men who had had such different existences in the world". A large part of the tasks are carried out by hairdressers unemployed by the fall of the monarchy and its aristocracy. Thus, calculating is no longer a task of 'geniuses' and a high capacity of the mind, on the contrary, it appears to be a 'universality', the possibility of being done by anyone, which relegated it to disrepute as a human faculty. However, the layers present in the *Calculus Monument* are multiple, more than a set of human calculators, a hierarchical system was established, a form of government inspired by the division of labor, in which repetitive and mechanical tasks are performed by workers from different lower classes. If these types of tasks are mechanized then, eventually, a machine could perform them. It is inspired by the work of De Prony and the respective division of labor that Charles Babbage builds his "difference machine". A new competitor for human computers appears then in the form of a mechanical machine.

In the calculus monument, the tasks performed by the lower classes are basically reduced to additions and subtractions. It is very likely that these workers, devoted to repetitive and mechanized tasks, had no idea of the meaning of their task and the device in which they found themselves. It is also true that this is the place between alienation, emancipation and revolution. Calculation, intelligence and work are a swamp of tensions during the Enlightenment that also dialogues with artistic practices. Lorraine Daston, in Enlightenment Calculations, after having situated calculation and intelligence in the Enlightenment, struggles with the connection between work, mechanics and the prevalence of an encyclopaedist commonplace in these discourses:

"Here d'Alembert repeats a commonplace: skill, the knowledge of the hand, and habit, the enemy of reflection, had long been opposed to intelligence and deliberation, and intimately associated with manual labor. Cambridge Platonist Ralph Cudworth had likened the unconscious art of nature to the habitual performances of the musician or dancer and explained: We account the Architects in every thing more honourable than the Manuary Optificers, because they understand the Reason of the things done, whereas the other, as some Inanimate things, only Do, not knowing what they Do: the Difference between them being only this, that Inanimate Things Act by a certain Nature in them, but the Manuary Optificer by Habit."

The craftsman is sometimes the figure found to exemplify the one who is tied to the mechanical and repetitive task, devoted to the unconscious art of nature. This doing without knowing what one is doing as an anathema to the craftsman, equated simultaneously with the natural and the mechanical, was also the way of imagining a mental operation as mechanizable and, consequently, a machine that could replace this mental operation. This mechanical mental operation is not without its correspondence with savage thought. Far from the imagination of the time, the *Calculus Monument* seems to carry a certain prophecy of the mechanization of the mind.

References: mind.

Macy conferences–cybernetics (1941-1960)

The Macy conferences were a series of interdisciplinary scientific meetings held in New York between 1941 and 1960. Interdisciplinarity was in itself one of the major objectives of conferences that brought together scientists from different areas to break down disciplinary boundaries. Medicine would occupy an important place, not only because of the sponsor dedicated to health, Josiah Macy Jr. Foundation, as well as the isolation felt as a discipline in the face of the need to relate to areas such as, for example, nuclear physics or society (p. vii). Not by chance, with the aim of interdisciplinarity and communication between sciences, from 1946 onwards, a new area began to be formed and systematized: cybernetics. The group included people from various fields such as: Frank Fremontsmith, Gregory Bateson, Kurt Lewin, J. C. R. Licklider, Margaret

Mead, Walter Pitts, Claude Shannon, Heinz von Foerster, John von Neumann, Norbert Wiener, Warren McCulloch. Taking the theory of information, communication, media and concepts such as central feedback and homeostasis, cybernetics placed themselves as objects of their experiments. The science communicator was observed and analyzed in his own activity. It becomes difficult to discern how much of their social life was projected onto the experience and theory of cybernetics. The creative, white, upper-middle-class American researcher became the model open-minded citizen (Cohen-cole) that America needed for postwar peace. In the 1955 edition, The Expression of the Emotions in Man and Animals, with a preface by Margaret Mead, photographs of researchers engaged in communicative activity were added at the end of the book. These researchers seem to be one more stage of the Darwinistic development, in its structure and racializing science. A step to be reached based on new discourses and educational models.

According to Jean-Pierre Dupuy, the creed of cybernetics was based on:

— 1. "Thinking is a form of computation. The computation involved is not the mental operation of a human being who manipulates symbols in applying rules, such as those of addition or multiplication; instead it is what a particular class of machines do — machines technically referred to as "algorithms." By virtue of this, thinking comes within the domain of the mechanical.
— 2. Physical laws can explain why and how nature — in certain of its manifestations, not restricted exclusively

to the human world — appears to us to contain meaning, finality, directionality, and intentionality. They thought themselves capable of reconciling the world of meaning with the world of physical laws. Thanks to them, the mind would at last find its rightful place in nature."

Mind, machine and nature can finally mingle. The reproduction of nature will be able to continue more harmoniously and efficiently than ever, such as the desire of a distinguished lord of artistic education, author of "Prophesies for the Twentieth Century".
The cybernetic meetings of the Macy Conferences ended in 1953, configuring cognitive sciences on the one hand, on the other hand, passing through second-order cybernetics (cybernetics of cybernetics), the core of the discussion seems to have continued in what came to be known as artificial intelligence.
References: mind.

On the Future of Art: "Creating the Creative Artist" (1969) by B. F. Skinner

Both the transcript and the audio are available and they document the importance given to psychologists and psychological theories in reflections about creativity in artistic contexts and art institutions, as well as how challenging (and in some ways illuminating) a strictly behavioural perspective on how to create producers of art (artists, or people who behave as artists) and art consumers (publics) that adequately reinforce (themselves and) each

other can be. Skinner approaches the issue technically, as a practical problem that requires manipulating behaviours and consequences, and designing a culture in order to build a world that is desired, imagined as possible, using tools and technologies that can be expected to produce it. The goodness of its ends demands it.

If one is interested in producing a certain world - for example one with more or better creative artists - viewing creativity as subjective and emotional brings challenges regarding how to intervene. In his text he is quite explicit about the challenges, in a somewhat ironic manner (that can be said to have some relation to some art teaching practices focusing on creating artists) he sais: "Now, should we conclude then that we are to try to encourage art, to generate artistic activity, by working on this inner life? Should we stir up the artist's emotions, alter his mind in various ways, frustrate him, destroy his equanimity?" (Skinner, 1969, p. 2). For him, this is not an acceptable nor an effective way to, as he puts it, "induce more people to paint" (or make more people engage in creative activities) and "to paint in acceptable and preferred ways" (or to engage in creative activities and produce outcomes that are seen as creative as in novel and valuable) (Skinner, 1969, p. 6). The way to do it, he unsurprisingly proposes, is to use what is known about producing certain kinds of behaviours, making them more likely to occur, and apply that to this situation. Better ways of teaching and programmed instruction could be helpful in achieving this. Skinner wants to move away from the idea that a mind, and mind powers, are responsible for the creation of something new. Different or divergent results can be

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achieved using various strategies, deriving, combining, imitating, introducing chance mechanisms or sources of random interference, etc. He is more concerned about how these variations are selected against others (expressing idiosyncrasies) in a context that is social, cultural, contingent, and produces consequences:

"The mentalistic interpretation of the artist — and we've had them for 2,000 years — doesn't dictate very specific practices. It really can't, because it doesn't point to things which can be changed, which can be manipulated. (…) Now, the account that I have given is not only anti-mentalistic. It may seem to be anti- individualistic. It is, after all, the culture which creates both the artist and the consumer of art. And the culture is our point of attack. We are concerned with the design of a culture. We want to build a world in which large numbers of people paint and look at pictures, and large numbers are needed if we are ever to discover the few exceptional individuals in any given era." (Skinner, 1969, pp. 11– 12).
References: creativity

Pressey Machine (1924) by Sidney L. Pressey

In 1924, Sidney L. Pressey, professor of psychology at Ohio State University, developed what is considered by many to be the first teaching machine. In practice it was a box with typed questions, with 4 multiple choice numbered answers. The box allowed the "test" model that added the correct answers, or the "teach" model that did not allow to advance until the answer was correct.

Apparently, one of the supposedly most consensual definitions of teaching machines would be in line with the following criteria: A teaching machine is an automatic or self-controlling device that (a) presents a unit of information (B. E Skinner would say that the information must be new), (b) provides some means for the learner to respond to the information, and (c) provides feedback about the correctness of the learner's responses. (Benjamin, 1988). For us, more than the definition and whether the Pressey Machine corresponds to the criteria, we are interested in understanding the emergence of these criteria and what informs them. Self-controlling, information and feedback were not such common concepts in the 1920s. On the other hand, Pressey seems to be a pioneer of cognitive discourse and programmed learning. The fact is that his machines did not have receptivity at that time.

B. F. Skinner also became interested in teaching machines from 1953 onwards, even publishing the text Teaching by Machine in 1954. Upon reading this text, Pressey corresponds with Skinner sending him his work. According to Skinner, Pressey machines are more testing machines than teaching machines, since they are not teaching new material and rely on previous study by students. Skinner begins to develop his machines with the aim of introducing 'new' matter.

We can read many common desires and assumptions between Pressey and Skinner, from the idea of cognitive work being mechanized, to how this mechanization can free the teacher's work and lead to self-instruction. Despite these common dimensions, generally on the order of pragmatism and efficiency, the epistemological starting

points are quite different, even though they point to a common territory. Between Skinner's behaviorism and Pressey's cognitivism, there is a cybernetic territory that unites them. If, at the outset, this would be more readable in Pressey, the fact is that Behaviorism is also based on the feedback model, although with the term "reinforcement" in its place. Indeed, Skinner and Norbert Wiener (a key figure in cybernetics) worked during World War II on similar challenges. While Wiener was trying to calculate aircraft trajectories, Skinner was developing a project that used pigeons to guide missiles. Post-war education discourses, particularly about teaching machines, often appear in a military context and seem to be anchored between theories of information and animal behavior. In this respect, Pressey makes his position very clear in the article Teaching Machine (and Learning Theory) Crisis, first presented at the American Psychological Association in 1962 and published a year later in the Instructors' Journal of the Department of the Air Force Recurring Publication:

"The archvillain, leading so many people astray, is declared to be learning theory! No less a charge is made than that the whole trend of American research and theory as regards learning has been based on a false premise—that the important features of human learning are to be found in animals. Instead, the all-important fact is that humans have transcended animal learning. Language, number, such skills as silent reading, make possible facilitations of learning, and kinds of learning, impossible even for the apes, Autoinstruction should enhance such potentials.

Instead, current animal derived procedures in autoinstruction destroy meaningful structure to present material serially in programs, and replace processes of cognitive clarification and largely rote reinforcements of bit learnings"

Information theory and animal behavior in a war scenario, only a creative child could symbolize hope and peace, for the world and for education.
References: mind.

Mind in Society (1978) by L.S. Vygotsky

This book puts together and edits essays and materials from different sources in order to bring to western academics the views of the mind that were present in Vygostky's works that because of historical and political reasons (including the cold war) were relatively unknown and untranslated in the west until the 1960s.
One of issues that the book addresses, in one of its chapters, is the issue of play, in its relationship with imagination and child development.
Closely linked to imagination, play is seen as having an important role in changing the child's relation to reality: the (small) child becomes less determined by what are her surroundings and what she sees, and progressively more by meanings and motives. As Vygotsky puts it, "in play, things lose their determining force. The child sees one thing but acts differently in relation to what he sees." (L. S. Vygotsky, 1978, pp. 96–97). By allowing the child to act with meanings as with objects, play creates conditions

for "emancipation from situational constraints" (L. S. Vygotsky, 1978, p. 99). Even though this opens possibilities of spontaneity and freedom in play, Vygotsky is clear that in fact, through play, the child learns self-control and self-determination by learning to subordinate herself to rules - "the essential attribute of play is a rule that has become a desire. (...) play gives a child a new form of desires. It teaches her to desire by relating her desires to a fictious"I", to her role in the game and its rules." (L. S. Vygotsky, 1978, pp. 99–100).

If play creates the (imaginary) space where the child develops meanings, motives, desires and will, and if it also facilitates the situations, social and psychological, where the child learns to subordinate herself to rules, to act within self and other, imaginary even, determined boundaries and im/possibilities, it can be transformed into a (educational) technology.

— Which forms of play became instrumental as educational technologies? And to which (and whose) ends?
References: mind.

[[Nature]]

One of the most central and persistent legacies of [[coloniality]] as conceptualized by Anibal Quijano is the nature/culture binary. Opposing the civilised, white, european, male subject (culture) to the objectified, [['primitive']], sensous 'Other' (nature) became the core of arguments promoting discrimination such as racist, sexist and classist oppression. Nature, furthermore, has been a powerful metaphor or tool to render historically formed sets of norms and normative practices seemingly 'natural', obscuring their historical and social making. Within education, the nature of the child and the knowledges produced about this subject position have been crucial to the narratives of [[child development]] and [[recapitualtion theory]].

[[Play]]

In its earlier educational formulations, play was naturalized as proper of childhood and talked as the path to learning. Within this essentialization of play, there are moral and governmental goals. Not only would play remove the child from vicious or risky entertainment, but it would also train the child to become a civilized citizen of the nation. The organization of play and its spaces were also configured as devices for observing and producing knowledge about the child. It is essential to acknowledge that the playful child is made up at the intersection of racial, gender, ableist, adultist, and classist markers.

The Visual Games are a collection of materials made up of books, games, book-games, worksheets, modules and equipment, aimed at the visual education of children and young people. They were conceived by the painter Elvira Leite and the architect Manuela Malpique, both arts teachers in Portuguese public education. It was at the invitation of the Edições ASA – a Porto's publisher dedicated to the pedagogical and literary area, known in the country for its school manuals – that Elvira Leite and Manuela Malpique began to think about this editorial line, based on the difficulties they encountered in the school routine. The publication of the *Visual Games* took place in 1974, a year marked by the beginning of the democratic period in Portugal after 48 years of dictatorship.

According to Elvira Leite (1936), the *Visual Games* were a commercial failure. They were on sale in bookstores, not in toy stores and, probably, in the same places where other materials from Edições ASA could be found, therefore, we can consider that only a specific fringe of Portuguese society would have consumption habits of materials designed specifically for children. Despite this "financial failure", the Visual Games are known and are still used by those who have them, thanks to the free distribution made by Elvira Leite after the publisher deposited hundreds (or thousands) of copies in her garage, having used them in her classes at the school where she taught and in workshops at the Serralves Museum of Contemporary Art, offered to schools, friends, art educators. This causality made the

Visual Games reach social groups that would possibly not have had access, spreading and gaining notoriety in a restricted circuit of interested parties.

Visual Games are absent from a historical narrative of art education in Portugal made up to the present, even in the face of the inexpressive national production of these types of materials. Perhaps part of this absence is due to its singular emergence at the hands of women teachers – and not designers or recognized pedagogues at the time, something they would become over time – in an impoverished country in Southern Europe, in the city of Porto which, despite being the second largest in the country, it did not have the same attention as the geographical and cultural capital, Lisbon. However, this situation is not reflected in the survival of these same *Games* among those who know them through the charismatic figure of Elvira Leite.

We are interested in looking again at these materials, as they hold within themselves a power of action and reactivation, but at the same time preserve certain visual grammars and statements to be rethought and problematized considering our present. Bringing them to this [[archive]] implies preserving them, reactivating them and inserting them into a [[history of the present]] that perceives the appearance of Visual Games through the various forces in the field of arts education that crossed their authors at the time of their conception and still permeate our daily practices.

It will be in the Visual Games catalog that we will find the thoughts of the authors and the framework of what they propose:

"Visual Games propose a time for reflection on the visual messages that, at all times, impress us. Based on everyday learning, they offer stimuli that, through the selection and association of images, lead to the discovery of the elements that constitute and make the visual message visible: texture, shape, structure, module, movement. Playing, discovering, seeing, associating, creating are means that Visual Games propose for the search or construction of visual information. Visual Games, insofar as they bring memory and observation into play, develop thinking and help verbalize it, awaken and enrich sensitivity, leading, in the long term, to the conscious choice of certain values to integrate into life".

There is the inscription of the Visual Games in an aesthetic education plan as [[education of the senses]] that aims at the improvement of expression. This goes back to the idea of education through art found in Herbert Read (1943), which would place artistic expressiveness at the center of human development, but which carried with it a series of [[colonialities]] related to the creative child [[see Education through Art]].

Visual Games are aimed at a visual education based on an allegedly neutral grammar and visual language, using universalizing notions of modern design about ways of seeing and producing visually. The very visuality present in Visual Games is a product and expression of this modern design by employing 'pure' shapes, solid colors, sans-serif fonts, prevalence of white space, minimalism of textual information and emphasis on the visual form. According to Anoushka Khandwala in the text *On the Encroachment of*

Modernism: Class, Culture and Colonialism (2022) minimalism and the 'clean' aspect of modern design can be understood as a symbolic of wealth and an indicator fetishized of social class, disregarding and excluding the existence of other visual traditions.

— Being more aware of the historical forces that intersect these materials, how can they be critically reactivated?
— Why is there a particular focus on certain visual grammars still in current practice?
References: play; education of the senses; coloniality.

[['Primitive']]

When we use primitive, we should use 'primitive' between commas. This means that the 'primitive' is a construction that differentiates between different kinds of humans through a rationale based on a sense of history as past, present, and future, where those that were so-called 'primitive' were situated as the past of humanity and, thus, as less developed. The term was used, in Western modernity, to classify those that were not European and not 'white'. It is a racist and colonial term that was also mobilized in education and the arts, particularly in the equivalence of the 'child as primitive' and the 'primitive as child'. This equivalence was made possible through certain affinities created as evidence between the visual production of children and those depicted in the colonies as 'primitive'. It is also part of the binary system 'primitive or savage' and civilized.

portion of his surroundings often makes him re-
luctant to real up to the painful analysis and so-
lluting as peculiarly part of himself to his large-

Notes on ~~Eskimo~~ Drawings (1899)
by Louise Maitland

This article from Louise Maitland is based on comparing the western child with the 'primitive'. The illustrations in the article are "traced copies of the original drawings". Maitland affirms what, by the end of the 19th century, became a common argument among western 'white' educators, psychologists, and art educators: "On comparing the drawings of primitive races with those of children, we find that they possess many points of interest in common. While some of these relate to likenesses, and some to differences, the drawings of both, upon investigation, prove themselves to be a comparable product". It was not rare, by the times, to compare the 'white' western child with the so-called primitive adult. Visual affinities became essential in constructing an epistemology of the eye that sees and categorizes the western white child and the 'Other' in a scale of development. The comparison is made to differentiate and produce hierarchies. The comparison of the western 'white' child with the 'Other' was a form of power in which both the 'white' western child and the 'Other' were considered as minor subjects. However, while the 'white' western child would develop, the 'Other' would always be frozen in a scale of development.

"Comparing the ~~Eskimo~~ with the civilized children's drawings, we find: The children up to about ten or eleven years, like the ~~Eskimo~~, use drawings as a langua-ge, and choose much the same classes of subjects for illustration, though in varying proportions. [...] In the

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composition or arrangement of their drawings, the children in their younger years show a correspondence with the ~~Eskimo~~; at an older age they pass more frequently to a higher artistic development".

In our text, we cut the word ~~Eskimo~~ because it is a western depreciative term to designate the Inuit people, in this case, from Alaska. We use the word 'primitive' between commas to accentuate its construction as part of the colonialities of thought.
— Why do we consider the child a developing being, going from the simple to the complex in terms of thought? How are art education practices in the present reactivating this developmental perspective on children?
— Have you ever thought about the role of comparisons and metaphors in education?
References: child art; child development; 'primitive' ; coloniality.

The Human Figure as Rendered by Savages and Children (1908) by Ernest-Théodore Hamy

This is a text from a conference given at the National Museum of Natural History in Paris by Ernest Hamy, the first director of the Ethnographic Museum of Trocadéro. Hamy's thought dwells on the comparison of children's drawings and 'savage' drawings.
"From the point of view of the arts of drawing, in fact, as from so many other points of view, savages are real children; they draw, they daub, they model like children. Moreover, in the absence of the savages themselves, whose aesthetic

evolution in space and time we cannot easily follow, the children will inform us and provide us, from an early age, with the terms of comparison, the most satisfactory and the closest. Let us examine the spontaneous works they perform before our eyes; we will find all the elements of savage art and, what is more, the series of ages will reproduce the ascending scale of elementary civilizations".

The affinities that are constructed among children and the 'Other' follow a developmental and stadial sequence in historical development. These affinities are based on the epistemologies of the eye. Not only are they constructed according to the principle of the modern science of objectivity as visual evidence, but they construct these visual approximations through the notion of a 'family' of scribbles and shapes. The children's 'childish iconography,' says Hamy, can be found among 'primitives and savages.' Describing the performances across the child's age, in terms of their aesthetical equivalents, also obeys the rationale of development. The early ages are characterized by a lack of the capacity to reason correctly:

"The child in the state of nature will always refuse, like the primitive, and like the savage, to this figuration which he will only understand later."

The affinities eradicate difference through the codifi-cations mobilized to represent the 'primitive' and the child. Both are said to share a stage within the timeline of development and progress, although the 'white' child will continuously move until achieving the time of reason. References: 'Primitive'; Children's Drawings; Child Development; Coloniality

[[Recapitulation Theory]]

Recapitulation theory is the hypothesis that emerged during the 19th century based on the belief that the deve-lopment of the embryo of an animal, from fertilization to gestation or hatching (ontogeny), goes through stages resembling or representing successive adult stages in the evolution of the animal's remote ancestors (phylogeny). It was also applied in education to refer to the [[child development]]. This notion fed the equivalence of the child as [['primitive']]. Drawing was one of the terrains in which the theory was used, and evidence was fabricated based on visual affinities through stages of development.

[['Savage' Thought]]

We approach the concept of "savage thought" from Ginger Nolan (2020, *Savage Mind to Savage Machine*), in her analysis of how structuralism dismantled 'racial difference' by demonstrating that human cognitive structures are common to all humans. She also notes that white culture was practically not the subject of anthropology before the end of the 20th century. Based on the work of Claude Lévi-Strauss, in particular, "The Savage Mind", Ginger notes Lévi-Strauss' strategy to refute the very term [['primitive']] and the respective notion as an inaptitude for theoretical and abstract thinking. This strategy involved distinguishing between the concepts of "bricolage" and "engineering", aligning engineering with Western technoscience and bricolage with "science we prefer to call 'prior' rather than 'primitive'" (Levi-Srtauss, 1962, The Savage Mind). Ginger highlights the cybernetic plane where Lévi-Strauss moves, in which this techno-scientific laboratory establishes the bricoleur as a matter of experience, often as a racialized figure. Despite not establishing explicit hierarchical and racial relations, for Lévi-Strauss, bricolage appears as the first universal cognitive structure. Therefore, the bricoleur could be framed in a laboratory where the engineer was privileged and sovereign. The laboratory was the place where depoliticization, technologies of government, and new forms of economic organization were developed. Thus, without biological-racial distinction, the developed techniques maintained the structure of racialization, establishing the distinction between bricoleurs (allegedly unaware of their way of thinking) and engineers (systems

designers and great beneficiaries of these same systems). Savage thought was/is a form of "governing by design", which depoliticizes the negotiation of difference while maintaining the racialization structures of those who design the system upon those who, supposedly, cannot think and politicize it.

[[Self-government]]

Self-government was a topic of modern progressive education. We borrow the meanings of the concept from Michel Foucault's theory of governmentality (1991, *Governmentality*). The government of the self was part of the ways in which power was conceived in modern Western nations. Power was dependent on the knowledge of the subjects to be governed and their souls. Governmentality as the conduct of conduct is the best expression to understand the politics of one's government. It promotes a relationship of the subject with themselves in such a way that the care of the self and the conduct of the self become inseparable. In his text *Technologies of the Self* (1988), Foucault explained that these are those "which permit individuals to effect by their own means or with the help of others a certain number of operations on their own bodies and souls, thoughts, conduct, and way of being, so as to transform themselves in order to attain a certain state of happiness, purity, wisdom, perfection, or immortality." As such, the practices or technologies of self-government show us how power and knowledge were conceived not in opposition but entangled with the sense of autonomy, freedom, choice, and self-improvement.

Marion Richardson was an English art teacher whose work became well-known close to the names of Franz Cizek or Victor Lowenfeld. In the United Kingdom, Roger Fry often referred to the importance of Marion Richardson's work at the Dudley High School for progressive arts education practices, as Richardson refers to Fry's *Omega Workshops*. This book contains the memories of Richardson as a teacher and her views on child art. Richardson believed children were creative and had to be taught to trust their inner eye. The book recounts many experiences she had made with children, such as:

"While I gave the description children sat around, generally on the floor. This made it possible for me to speak quietly and naturally while they listened with their eyes shut. As soon as they had seen their idea, they left the circle. I well remember the air of confidence with which they got up and went to their places, taking with the paper they needed. Every morning I cut and put piles of paper which offered a wide choice of size and shape. They used water-colour, but used it freely to match as nearly as possible the colour and texture of the mental image. How different it all was from the orthodox technique which these children had learned before in imitation of adult conventional art. They were now developing an art of their own, vital enough to discover its own means of expression"

With some changes in the proposed task, the description gives today's art educators a sense of recognition in arts education practices that imagine themselves liberating the potential of children's creativity. Children were invited and encouraged to disclose their imagination through drawing or painting. The rationale of this practice, based on self-government, is almost hidden from the teacher. However, this gesture transformed children into objects open to calculation, assessment, scrutiny, and comparison. At the same time, practices of subjectification were at play in which children constructed themselves as subjects with specific qualities and capacities.

— Have you ever thought how the language of freedom and liberation in relation to children's education is connected to self-government?
— Do you recognize the continuities of this kind of exercise with today's arts education practices?
References: self-government; child art;

[[Straightening Devices]]

We use Sara Ahmed's concept of straightening devices to talk about the will as a technique, "a way of holding a subject to account" (2006, *Queer Phenomenology)*. The concept is interesting to think about how children's imagination was kept within certain borders. The children chewing the borders of a 'right' way of imagining were those willful subjects that child art as a straightening device, or the multiple ways through which imagination was configured within the educational discourse, tried to hold to account. We can read those willful subjects as queer subjects. As studied by Eve Sedgwick (1994, *Tendencies*), the word queer derives from the Indo-European word 'twerkw', meaning to turn or to twist, thus, a deviation from the straight orientation. The concept is particularly useful for our line 'the hopes and fears of creativity in education'. The new modern notion of history as past, present, and future and the recapitulation theory gave rise to the notion of [[child development]]. This way of producing knowledge about the child was essential to the government of children [[self-government]]. The separation of the child from the adult and the invention of steps through which the child's growth should pass created a set of expectations that defined what a normal child was and should be and, simultaneously, what the abnormal child was.

[[Whiteness]]

Whiteness refers to the construction of the 'white' race and the structural privileges afforded by 'white' people. Race as a social categorization is based on the production of racial differences on the body level such as – yet not limited to – skin colour and functions strongly on a social level. Hence, whiteness as a category of race refers to value and belief systems as well as habits and attitudes that are allocated in 'white' bodies. The particularity of whiteness within the social categorization of race is that it constitutes itself as the unmarked norm. In the book *Playing in the Dark: Whiteness and the Literary Imagination* (1992), Toni Morrison discusses how literature is neither universal nor race-free. She asks, "How is 'literary whiteness' made, and what is the consequence of that construction?". Once one starts to perceive that whiteness is there structuring the imagination of literature, then "it requires hard work not to see this". Morrison continues: "It is as if I had been looking at a fishbowl – the glide and flick of the golden scales, the green tip, the bolt of white careening back from the gills; the castles at the bottom, surrounded by peebles and tiny, intricate fronds of green; the barely disturbed water, the flecks of waste and food, the tranquil bubbles traveling to the surface – and suddenly I saw the bowl, the structure that transparently (and invisibly) permits the ordered life it contains to exist in the larger world." Another definition of whiteness by Reni Eddo-Lodge (2017, *Why am I no longer talking to white people about race*): "Neutral is white. The default is white. Because we are born into an already written script that tells us what

to expect from strangers due to their skin colour, accents and social status, the whole humanity is coded as white. Blackness, however, is considered the 'other' and therefore to be suspected. Those who are coded as a threat in our collective representation of humanity are not white."

<u>*A instrucção da creança (1904/5)*</u>
<u>by Johannes Staub</u>

First published in 1875/6 in Switzerland, Johannes Staub's picture book series *A instrucção da creança* was translated and published in Portugal in 1904/5. Staub was a teacher and author, committed to progressive and reform education. His picture book series was thought as part of the pedagogical method of the object lesson. This method was popular amongst progressive educators during the 19th and early 20th centuries. Underlying logics were that the child would develop 'naturally' by being exposed to the world, by learning from 'nature'. Through sensory perception – mainly seeing – the objects presented to the child could be categorized and described. The developmental learning path led from the simple to the complex, the near to the far, the concrete to the abstract. 'Learning to see' could be the slogan of this method that was quite concretely concerned with controlling the visual sense and how it was employed to create knowledge about the world.

Picture books like Staub's became important educational tools as images were believed to create sensory imprints on the child's mind and simultaneously images could be employed to initiate the inputs that were desired by the

teachers, or rather, society at large. The cover image of *A instrucção da creança* reproduces an idea about who the imagined or desired child was: white, middle-class, gender binary conforming, sighted and with a centre stage for the male child. Those lines of representation can be easily traced throughout the entire picture book series. Beyond the representational level, the constitution of a white gaze can be traced that constitutes itself while erasing or disguising itself as invisible (Dyer, Richard (1997): *White*). "There is power in looking." (hooks, bell (2003): The *Oppositional Gaze: Black Female Spectators*, p. 207) and within white cultures it is the white subject who is constituted as the seeing subject, the subject who can visualize the world (hooks, bell (2003): The *Oppositional Gaze: Black Female Spectators*; Mirzoeff, Nicholas (2011): *The Right to Look: A Counterhistory of Visuality*). Questioning how the white gaze is at play in educational practices, theories and materials gives insight into the construction of the figure of the child. 'Learning to see' then erases the white positionality from which the subject is looking at the world, naturalising whiteness as the norm.

— What are the challenges in identifying white representations?
— Going beyond representation, how is a white gaze at play in the cover picture of A *instrucção da creança?*
— How does whiteness figure in your educational practices or your context?
 References: child development; nature;
whiteness; education of the senses.

The Historicization of the Creative Child in Education

Indigenous Foreigner, Traveling Libraries and Settlements

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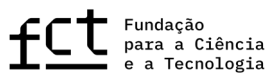Cat Martins

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The interest of this chapter is to think about "two subjects" of the modern school –the *subject of the child* at intersection of the instructional "subject" of art and science education in the politics of modernity. Nonpolemic terms such as learning, creativity, curiosity, and problem solving elide this historicity and the affective economy of pedagogy and research as an actor or a space of action that generates patterns of recognition and expectations of experience that govern how the child is "seen" and talked about, and for the child to act with freedom as a kind of person. The first section explores the system of reason of schooling as practices of making kinds of people. Notions of alchemies and double gestures are used to historically make visible how the arts and sciences are transformed and transmogrified into a comparative reasoning about the potentialities that schools are to actualize. The phenomena acted on in the school are new sets of practices and phenomena that have little to do with what are named as school subjects, such science and art education. The new phenomena of the creative child, for example, are phantasmagrams, projections that embody double gestures to distinguish and divide the normal and the pathological potentialities of people. The second section explores how the affective economy of the curriculum travels and settles in different historical spaces, discussed as *indigenous foreigners and traveling libraries.* The notions explore how the two subjects of the school travel and settle in different places as desires in "the will to know"; expressed as double gestures of the hopes,

1 I place the difference strands of contemporary thought in Anglo-American and often Western European thought together; with the differences in critical (Hegelian) and liberal (Kantian) studies as melting ontologically to embody liberal theories of the subject. See, Dalgliesh, 2013; Popkewitz & Huang, 2023.

aspirations and fears of the dangerous populations. The argument is an exploration of how the objectifications and differences of people are made possible as identifiable forms for the possibilities of codification, administration and difference in the body and soul.

The interest in of this chapter is to think of "two subjects" of the modern school –the *subject of the child* at interstices of the instructional "subject" *of curriculum, with emphasis as art education*. My focus on these two subjects is historical and with the politics of modernity in the governing of conduct. Non-polemic terms like learning, creativity, curiosity, and problem solving associated with the curriculum elide this historicity and the affective economy of pedagogy and research. The elision occurs in the historical "telling" of schooling as the invention and intervention that is foundational to modernity's pursuits of "the good life, and enlargements of democratization that, at least in Western liberal and critical theories, corrects social wrongs, and the enabling of voice and empowerment.[1]

The promise of the good life is an important trope of modernity, and my intent is not to lose sight of the social commitments in the practices of schooling. My question is more directly in examining the affective economy of pedagogical practices and making of the curriculum. The task reverses the notion of agency as the human intervention to realize its social commitment and, in contrast, to explore the agential qualities of "the reason" of schooling historically through generating patterns of recognition and expectations of experience by which the child is "seen" and for the child to act with freedom as a kind of person.

This reversal of the logic of schooling focuses on the *reason* of schooling in its two subjects – the curriculum (art and science, for example), and the child – in discussion in two sections. The first section deploys the notion of alchemy to examine the curriculum as translations in the making the school subjects of the arts and sciences. Analogous to European Medieval practices, the school curriculum embodies magical transformations of disciplinary social and cultural relations into new sets of practices and phenomena that have little to do with what are named as school subjects, such science and art education. The system of reason that orders art and science education, for example, produces phantasmagrams; that is, projections of the potentialities of kinds of people. The projections an imagined child who embodies of "the good life" is a double gesture that, paradoxically, activates its Others to distribute differences to exclude, abject in efforts to include.

The second section explores how the affective economy of the curriculum travels and settles in different historical spaces, initially discussed as *indigenous foreigners. The indigenous foreigner* directs attention to how styles of reasoning about the two school subjects travel as a global (foreign) knowledge of education (which they are not!) but affectively feel at home (indigenous) in multiple places as expressing the hopes and aspirations about potentialities, about people and societies. This global, "foreign" reasoning, however, never travels alone when settling into different historical spaces of educational policy, research and school practices. The indigenous foreigners are assembled in traveling libraries, connected

with other ideas, technologies, theories, and stories to create spaces of action about how to anticipate the future and protect against its dangers.

If I do my job adequately, the chapter provides a critical mode of study that cuts into what seems self-evident, reversing conventional thought that make the formal categories of the state, welfare institutions, representations of people as originary sites. The distinctions, differentiations and classifications of child as creative, motivated, or disadvantage and at-risk child are

practices or operating mechanisms which do not explain power, since they presuppose its relations and are content to "fix" them, as part of a function that is not productive but reproductive. There is no State, only state control, and the same holds for all other cases. (Deleuze [1986/1988, p. 75)

My focus to how the reason of schooling is a material practice that inscribes and distributes differences to provide an historical layer to analyses that examines how the problem of equality is organized through a comparative reason that paradoxically inscribes inequality in its rules and standards to create equality. The chapter concerns the politics of knowledge and the epistemic conditions that are related to issues of racialization (and eugenics) privileged in contemporary discourses about whiteness and Eurocentricism. I do not that use the later conceptualizations, however, but on the comparative reason of schooling whose the relations and content which give intelligibility to the divisions and differentiatings in the

making of kinds of people. This strategy is to interrupt the perpetuation of othering that articulates diversity as *difference* within a unified normativity of the subject inscribed as the origin of self-realization, freedom, and autonomy. It engages questions of resistance and freedom, as Deleuze (1986/1988) and Foucault (1970) argue, in the diagnosis of the apparatus which power installs on the surface of our being, issues discussed more in the conclusions.

2 The UNESCO's *Road Map for Arts Education* (2006), for examples, affectively "stakeholders" to evoke the road map as the infrastructure that responds to all social interests in arts education.

I. THE REASON OF SCHOOLS: MAKING KINDS OF PEOPLE, ALCHEMIES, PHANTASMAGRAMS, AND DISTRIBUTING DIFFERENCES

In discussions about policy, research, and schooling, attention is often given to knowledge as expressions of human actors as "stake holders", a word deployed to think about the partition of interests among all groups who have a 'stake' in art education.**2** My focus in the reason of schooling is to ask something different. It is to explore the historically generated principles about what matters as the affective economy that gives intelligibility to the possibilities of action. The paradox of the reason of schooling and its school subjects is, I argue, that very practices to produce equality are formed through rules and standards of inequality. This paradox is historically explored in externality of rules and standards of reason that enter into the school subjects and pedagogy that differentiates what matters as teaching, and for children to reason about their self as people, such as classified as artistic, creative, and problem solvers and the modes of participation and collaboration.

While not to discount the possibilities of the exercise of brute force and sovereign power, modern schooling is an inscription of a different notion of power. That power is the ordering of conduct, reaching into the interiority of "the soul" as the order of conduct as self-autonomous actors in modernity. The formation of art education, for example, occurs at the interstices of scientific psychologies of the child and learning, and pedagogy in the West during the long 19th century. The focus entails desires inscribed in the infrastructures of education to focus on anticipated potentialities of the child as kinds of person that education activates.

In one sense, schooling embodies the European Enlightenments notions of reason and rationalities as the object and subject of organizing "the self" as an agent of reflection and change. The reason of schooling has a historical specificity of sensibilities and dispositions for becoming and being which are associated with science as a calculative method of thinking and acting. Rancière (2004), for example, explores modern poetry as a consciousness that entails distinct cartographies and architectures for navigating the world. Comparing 19th century European Romanticism to Ancient Greek poetry, the romanticism embodied a reasoning through metaphors. The individual could think about "the self" as related to distance phenomena such as the imagery of clouds against a blue sky in which the aesthetic of the imagery generates an emotional expression of inner feelings. This notion

of reason often associated with Cartesian logic was not present in Greek poetry. The method of utterance in poetry was non-representation. The encounter of the poetry was between a way of speaking and the posing the "I" and representing people as mimesis, the imitation of life or nature that corresponds to the physical world as a model for beauty, truth and the good. The poetry had no place for metaphor linking individuality and distance things (nature).

The reason of modernity was not merely to capture the present and past; but affective to activate the future.**3** Temporality given to human history that appears in the 18th century was about becoming and not being. The sense of humanity was of the movements of past and present that projected human potentialities in its very epistemes.**4** Knowledge was not simply descriptive but embodied desires as *the will to know*". The inscriptions of *the will to know* appears innocently today as expressions of the imagined potentialities of kinds of people who act as problem-solvers, creative, curious, scientifically lite-rate, the mathematically abled, and the lifelong learners who are prepared to live in the future Knowledge Society. The ordering of the present as the interiority of people for an anticipated future was given expression in the moral and empirical sciences. The social and education sciences are never merely describing how children learn or measure what is learned. The human sciences are activists; that is, they embody desire in the infrastructures of its knowledge (Popkewitz & Huang, in press). Capturing the sentiments of cosmopolitanism, the formation of sociologies and psychologies of learning were desires

3 I have thought about this quality of the will-to-know as a *social* epistemol-ogy. Epistemology, as examining the rules and standards of reason that order and classify what is seen and acted on (Popkewitz 1991, 2020). The *social* directs attention to the historical condi-tions that make the ways of seeing and acting "practical" (Popkewitz 1991, 2008, 2014).

4 Where Greek notions of time was cyclical and the past not the future as important; and the Christian Church universalizing time, modernity relocates time in the spaces of humanity as have a regularity and irre-versibility that has its own history.

inscribed through the theories and methods of studying immigrants, racial groups and others placed in unlivable spaces of moral disorders. Sociologies and psychologies related to education in the US, for example, were sciences to design and revision the self and society to perfect "the good life". Change becomes an externality of principles for "seeing", thinking, feeling, and acting. The promises of the sciences are of earthy salvation and redemption through making the potentialities of people in the future. Art, science, mathematics, and music education as pedagogical projects are pathways and highways in the present for that individual and collective well-being.

Where early notions of reason and rationality were different in the early years of the European Enlightenment – one as wisdom and the other as calculations – those differences disappeared and collapsed in the notion of science by the end of the 19th century. Science was in the service of caring for people and for people to care for themselves through "the will to know". This caring for one's self was philosophically assigned as agential qualities of humans. That agency was not something natural to people but theoretical inscribed as the learning and dispositions to act and participate; and political and social theories of progress that envisioned rules of governance characterized as pursuits of happiness, liberty, and freedom (Popkewitz, 2008).

The formation of the modern school pedagogy, teaching, and the psychologies of the child embodied the desires of making kinds of people for the future. The sciences in education were spaces of action in which the classification and indexing of social and individual life activated

"the will to know" through concepts about learning such that motivation, self-realizations, and empowerment as philosophical ideals about the potentialities of kinds of people and "the good life". **5**

The republican forms of government that were formed in during the long 19th century recognized education in the art of governing kinds of people important to government. The citizen was a kind of person that needed to be produced as it entailed modes of living different from prior modes of governing. Government entailed the participation needed for government to function (Cruikshank 1999; Wood 1991). School subjects of science, mathematics, art, and music education were practices directed to the ordering of the interiority or the soul of the child. The grammar and syntax of the pedagogical knowledge of art, music, and literacy differentiated and divided kinds of children through psychological and social psychological categories related to the rules and standards of thinking about the self in the world, classified as problem solving, experiential and experimental learning, among other.

Making Kinds of People, Alchemies & Phantasmagrams

If we approach "reason" as not merely our making sense of the world but as an externality of knowledge internalized in governing conduct, the interstices of the two subjects of schooling become significant social technologies of modernity. It is no wonder that the neo-institutional studies trace the exponential, worldwide spread of mass schooling during the late 19th century into the present

5 I use "modernity" to focus on the epistemic forms historically as related to intervening and governing the body and soul with emergence of the social and psychological sciences in the long 19th century. This issue of the knowledge or social epistemologies and power as it relates to science and education in the European and North American cosmopolitanism is discussed in Popkewitz (2008; 2020).

6 I use Progressive not to delineate a sharply defined temporality given to the past; I use it as multiple overlapping historical lines to explore the objects of desire and change produced, hence the phrase "the long 19th century."

(Drori, Meyer, Ramirez, & Schofer, *2013*). The pedagogy and the disciplinary knowledges of their school subjects, pedagogical practices and psychologies are practices relating individuality to an anticipated collective belonging about the potentialities of kinds of people. School are not designed spaces for "preparing" for an imagined future mode of living – the making of the "productive" citizen, worker, parent, among others.

Making kinds of People: What differentiates the reason of the modern common school from earlier educational projects was the importance of science. The new sociologies and psychologies associated with American Progressive education **6**, for example, gave focus to the pedagogies of learning and childhood. The historical object and subject of the sciences of education was in making kinds of people through the ordering of conduct. Replacing moral philosophy, the theories and methods were concerned with undoing the deviances and moral disorders associated with the social spaces and populations of urban life.

The child of the school is a kind of person that is fabricated through the technologies of pedagogy. Attention was directed to the dispositions, sensitivities and awarenesses of the interior of the child, resignifying religious notion of "the soul". French and Portuguese pedagogies at the turn of the twentieth century, for example, observed and "registered" the inner physical and moral life in order to map the spirituality of "the human soul" as the educated subject who contributed to social life (Ó, Martins, and Paz, 2013). The American child studies of G. Stanley Hall spoke of science as providing the cultural principles of

psychology as the "more laborious method of observation, description, and induction" that would enable "conquering nature" and developing the "reason, true morality, religion, sympathy, love, and esthetic enjoyment" of the child" (Hall [1904] 1928, vii). **7** As Martins (2013, 2017, 2018) has explored in the teaching of drawing in art education, it is not about the arts, per se. It is about making kinds of people and differences.

The Alchemy of School Subjects: Underlying the school by the turn of the 20th century were the teaching in the school divided among different school subjects, science, mathematics, art, and music in which the psychologies, teacher institutes and seminaries facilitated their learning. The assumptions that what is named as school subjects of the arts, science, and mathematics, among others, is what children learn. This assumption persists today in research about teaching, international assessments, and didactics. Yet when examined historically, the school curriculum, like Medieval alchemies, are translation technologies to turn the disciplinary fields and the visual and expressive arts into school practices (Popkewitz, 2004; 2018. To say that schooling involves alchemies and translations is not to say these are necessarily bad. The pedagogical reworking of disciplinary knowledge into school subjects is necessary as children are not physicists, mathematicians, or professional artists. What is at stake, however, is not the existence of alchemies but the rules and standards of the transformations/translations into the curriculum. The alchemies of the school curriculum entail the movement of knowledge from an external social space into the school; translated, reworked and transmogrified into

7 Affixing the label of "scientific" or the word "empirical" should not be construed as embodying universal rules about domains of human practice; but, particular historical constructions about how and what is "seen" as matters of relevance and interpreted through styles of reason or paradigm (see, e.g., Popkewitz [1984/2012; 2020).

knowledge shaped and fashioned through the organization of space and time of the school through pedagogical principles and psychologies of the child and learning. Learning art, mathematics, science, or music are historically concerned with making kinds of people (Kliebard, 1986; Popkewitz, 2022). They are concerned with the interior of the child and the struggling for the soul.

The subjects of education take external disciplinary notions of knowledge and transport, translate, and transmogrify that knowledge into the reason of schooling. Art becomes art education ordered as discrete concept, tactile practices and skills given its grammar and syntax through that spaces of pedagogy and curriculum that makes art into something else. The concepts and classifications of the cognitive disciplines enter as folds in the theories, programs, stories, and imagination of school to order thought and have a material existence. School subjects connect with distinctions of sociologies and psychologies as distinctions that "act" as principles about how childhood, family, and community are seen, but also the degrees of freedom in which people are to "see" and act themselves (Popkewitz [1987/2018]. Today, educational research indexes children's literacies in art, science, mathematics, and music to identifying the pedagogical knowledge that can enable more effective teaching, efficient children's learning, and the relation of family and community that ensures children's success.

The system of reasoning of the arts gives a unity through its epistemic principle. The curriculum embodies the Cartesian logic of concepts, generalizations, and propositions about discrete units for the mind to apprehend in

its new space of the school and teaching of subjects. It is a register of the norms of cultural competences, mental processes, and modes of living about children's well-being and qualities related to social participation. No longer in the onto-epistemic spaces of the art internal to itself, the concept of arts is a play of substitutes that accomplish appropriations, terms of truth, and expressive values in its disciplinary role of representation.

With the salvation themes about preparing the child for the future society, the object of the school curriculum is about ordering conduct that connects daily life with the norms and values of collective belonging. The UNESCO *The Road Map for Arts Education (2006), for example, signifies the arts as its focus, but the actual discussion is art as a fold in an infrastructure that is something else.* The curriculum of art education embodies desires about potentialities that connects with the unities (and unities) of an imagined collective belonging for the future society. The notions of the arts as a way to make and visualize the worlds as folds in rules and ordering of phenomena as competencies, assessment, theories of psychology, and notions of collaboration, participation, and partnerships as an imagined vision that has to do with something other than the arts; translated into "traditional pedagogies into the education process with a view to preserving and making full use of culturally appropriate methods of communication and transmission of knowledge." (UNESCO, 2006, p. 7).

The arts as making kinds of people travels on the surface of policy and research about the curriculum. The UNESCO report re-territorized art into practices of schooling. The

body and the soul become objects of pedagogical observations activated on the interior of the child, spoken as best-practices. These best practices are tactile qualities that "utilizes the arts (and the practices and cultural traditions related to those arts) as a medium "using colours, forms and objects derived from the visual arts and architecture to teach" (UNESCO, 2006, p. 8). Arts education is not about the arts, per se, but a technology to order temporal qualities of life. The language of the report is about the interiority of the child. Creativity, a central concept in the report, is about how a child should "develop" the body and soul. It is about modes of living for recognizing, ordering, and experiencing that "cultivates in each individual a sense of creativity and initiative, a fertile imagination, emotional intelligence and a moral "compass". Its capacity is for "critical reflection, a sense of autonomy, and freedom of thought and action" is "relevant to the needs of the modern societies in which they live." (UNESCO, 2006, p. 4).

The UNESCO The Road Map for the arts is *to activate "the development of the integrated human being" related to unspecified notions of "social cohesion, conflict resolution, public health" (p. 20). The kind of human is the potentiality of a child (called learner) "actively engaged in creative experiences, processes, and development".* Research is to calculate how learning artistic processes as the means for "incorporating elements of their own culture into education, cultivates in each individual a sense of creativity and initiative, a fertile imagination, emotional intelligence and a moral "compass", a capacity for critical reflection, a sense of autonomy, and freedom of thought

and action"…. more relevant to the needs of the modern societies in which they live." (UNESCO, 2006, p. 4).

Phantasmagrams: Creativity is a phantasmagram produced through the school subjects about kinds of people. It is a chimera, a beautiful illusion built historically about what is represented and measured in the curriculum as science, mathematics, or music understanding. Like the 17th century magic lanterns, creativity is a projection of a beautiful illusion of objects and desires that have little to do with learning the modes of reasoning that the curriculum is names to replicating. The representative values that constitute the creativity are replacements of the relations of the arts into a second language as a play of substitutes that accomplished its appropriations within pedagogy. The Road Map for Arts Education speaks of creativity as the internalization of the external rules that acts as "a moral "compass" that shapes and fashions "critical reflection", "autonomy" and "freedom" discussed above.

The mode of living embodied as the creative "moral compass" and "capacities" are bound to the territories of the alchemic formation of "good practices" as a kind of person, paradoxically, with a "shared understanding" in "meeting the need for creativity and cultural awareness in the 21st century." (UNESCO, 2006, p. 3). The phenomena of creativity objectified as an essence and natural as a "Human Right". The new phenomena called creativity is a transcendental conception through which the self is to understand and make possible what is seen and felt as experience of the complexities of contemporary life. That phenomena is given as real and as a rationality to order, understand, "see" and feel as a reterritorialized

knowledge as different phenomena from the discipline practices in which is named.

The making of phantasmagrams in not only of art education but embedded in the alchemy of the curriculum. Euclidean geometry in mathematics education, for example, embodies temporal and ontological distinctions for children to assess their world (Andrade-Molina and Valero, 2015). Learning Euclidean geometry is a creation of a phantasmagrams. The self is to "see" and act as if the world is like the two-dimensional Euclidean space. The *"the eye" in that space "sees"* fixed Galalian objects. The sight of the geometry becomes a *sightless body, as* Andrade-Molina and Valero argue, as the complexities, multi-dimensionality, and conditional qualities of life are elided.

The issues at hand in the making of people, the alchemy and the phantasmagrams of the curriculum are how the representation objects are assembled and made into phenomena as the real, connected in as historical grids governing the patterns of recognition and the possibilities of existence. The objects of the schooling are enacted on the body and the interiority or the soul.

Comparative Reason and Its Double Gestures

The system of reason in which the alchemy and phantasmagrams are produced is comparative. The comparativeness appears as differences of development and growth that differentiate abilities, attitudes, and knowledge. The creative child in art education is a particular

comparative distinction to differentiate, and order who the child is and should be; and not "creative" that appears in the 19th century as a concept of science as multiple and mobile lines that are rearranged and reinscribed in different cultural and social edifices that serve as spaces of action in pedagogy (see, e.g., Martins 2017, 2018). The image of the developing child organizing the categories of drawing were to tell the truth about the inner qualities of child in which art made visible cultural distinctions about normal and abnormal development.

The comparativeness, at least in the West, is not new but is found in Linnaeus' taxonomy of flora and fauna that put western civilizations at the top of its hierarchy, the Enlightenment's differentiations of advanced civilizations and the missionary qualities of colonialization into the 19th century. It assumes a particular quality of knowledge in the 19th century human science in which an empiricity is given to knowledge, "seeing" of things as analytically discrete units that have structures and functions from which differences in humanness can be assigned through representations and conceptual distinctions about identities and differences. The invention of social life and people to be empirically investigated, affirmed, ordered, distributed gave a comparative temporal knowledge of ordering and successions (Foucault, 1970/1994; Popkewitz, 2022). The comparative made possible eugenics, Lamarckianism, and social Darwinism as it gave humanity structures and functions as sets of differentiated relations internal to its system of classification.

The comparative reasoning entails a double gesture. The calculations of people designed for learning and well-being

are formed through resemblances to some norms about the abstractions of the interior of the child that are never about the present but about the future and the dangers and dangerous populations (Popkewitz, 2022a,b).

Resemblance must be subjected to proof by comparison, to find its identity and order through discovery through means of measurement with a common unit. Analyze into its units to establish relations of equality and inequality. The complete enumeration of all the elements constituted the envisaged whole, and its categorial arrangements. Comparison is to attain perfect certainty that brings into existence the desires of the system as maximizing its goals. (Foucault, 1970/1994, p. 55)

The images and narrative evoked about the potentialities of kinds of people to-be and not-to-be. The phantasmagrams of the "good child" affectively generate particular types of individualities or determinate classifications to differentiate normalcies and pathologies produced as collective images and narratives (see. e.g. K. Kirchgasler, 2017; Paz, 2017; Ó, Paz & Vallera, 2022). The hope of progress embodies fears of dangers and the dangerous populations that prevent that progress in the same phenomena (Lesko, 2001; Lesko & Talburt, 2011; Ó, 2005; McLeod & Paisley, 2016; C. Kirchgasler, 2019; K.Kirchgasler, 2020; Popkewitz, Diaz, & Kirchgasler, 2017). Ideas about the child as creative, having curiosity, and motivate were double gestures that exclude in efforts to include. To speak about creativity and motivation, for example, embodies distinctions about

the qualities and characteristics of the child who is not creative or motivated, making differences that inscribe "others" who are outside spaces of normalcy as "unlivable". It is within the construction of differences and their distribution in the reason of schooling that can be understand as not merely about schooling but how inequality and racialization become materialized in the making of the child. I have not moved in this discussion to questions of racialization, it is made possible within the episteme assembled and connected with the different historical lines about the analytics of the alchemy, the Cartesian and the representational logic from which differences is formed through sameness and the body and soul made into objects and subjects of governing. **8**

II. PLAYING WITH LANGUAGE TO PLAY WITH REALITIES: THE INDIGENEOUS FOREIGNER AND TRAVELING LIBRARIES

My discussion has focused on reason as a historical and social practice that "acts" and is agential, shifting the focus from questions of psychology or philosophy to ask about how "we" think. The previous section focused on the materiality of "reason" – as an actor that acts as phantasmagrams creating patterns of recognition and expectations of experience about kinds of people that distributes differences. This section explores "reason" at a different layer, as a space of action as the calculations travels and settles in different time/spaces. The notions of indigenous foreigner and *traveling libraries* are used.**9** The notion of indigenous foreigner directs attention

8 I discuss these, although not adequately, historical and in contemporary educational research in Popkewitz (2020; 2022a,b,c).

9 The explorations of indigenous foreigners and traveling libraries are discussed in more specific historical trajectories related to the traveling of pragmaticism of John Dewey (see, Popkewitz, 2005); systems/cybernetics theories in education (Popkewitz, Pettersson, & Ksiao, 2021); and issues of epistemes and colonialization (Zhao, Popkewitz & Autio, 2022).

10 The traveling and settlements of Dewey and Vygotsky are discussed in Popkewitz (1998).

to how particular modes of reasoning are projected as global and universal (which they are not!) in settlements of different cultural and historical spaces, external to nations, for example, but appear as belonging or *indigenous*. *Traveling libraries* explores how particular the indigenous foreigner never travels alone but connected and assembled as *libraries* with other theories, ideas, stories, traditions, and technologies that activate the potentialities of the child and society as promises that generate double gestures.

Indigenous foreigners

The phrase indigenous foreigner appears to be an oxymoron – logical opposites that in the logic of practice belong together. "Indigenous" is a play of words to signify political vectors of cultural and social sensitivities generated as externalities of a global knowledge travel into nations to activate reasoning about "the good life". Marx, Foucault, Piaget, Vygotsky, Dewey, and Freire in education are such indigenous foreigners.**10** The naming is to direction attention to authors as *conceptual personae*, enunciating set of concepts and ways of reasoning about the world and the self that brings together and articulates cultural, social, and political conditions that are given plausibility and intelligibility (Deleuze & Guattari, 1991/1994).

The notion of indigenous foreigner is to focus on the school subject of art education. The school subject appears in European and North American schools as a particular subject to be taught as principles about making kinds of people. Dussel (2021) and Martins (2018) have explored,

for example, how particular authors in the art and art and design education historically enunciate models of sense, measure and calculation that enter into spaces for action and providing particular solutions that go beyond their philosophical ideas or their immediate intent of bringing art into registers of education. The designing art education, and the child are populated with theories, ideas, and technologies as calculative centers projecting images in children's drawing or criteria differentiating tactile learning as the potentiality of a curious, creative, and values of aesthetic beauty and the good life.

The notion of indigenous foreigners is a strategy to explore how the calculative reasoning of pedagogy and its sciences perform as affectively and cognitively as a space of action for activating patterns of recognition and expectations through the classifications and ordering of educational phenomena. Global distinction historically about benchmarks and competences, for example, appear as ahistorical concepts -"foreign" -that enter as a knowledge to express national and individual hopes and fears for planning educational experiences. International assessments of mathematics, science, and art education, for example, connected languages of literacies and students that appear as global and location-less but are incorporated as a language of national priorities in educational policies and reforms. The phantasmagrams of literacy and well-being in the international assessment are interiorized as the kinds of people activated through schooling. Its registers are comparative, indexing qualities and characteristics of kinds of people in continua of value about, for example, engagement, motivation and

satisfaction as a global mapping indexes differences (see, Popkewitz, 2022a, b).

The infrastructure of theories, ideas, and technologies of calculating the child in art and stem education that appear different in its qualities of knowledge, are exemplars of indigenous foreigners. STEM is the reduction of different epistemic machines in the sciences, technologies, engineering and mathematics that travels as, a singular non-polemic education process affectively as to modernize educational systems and nations. STEM folds into and is internalized in national policies and professional programs so it no longer is an external expression, but desires affiliated with aspirations and social and cultural feelings associated with individual and collective hopes associated with educational practices. The potentialities affectively embody images and narratives of the promise in the UNESCO road map for art education as the creative, imaginative literate kind of person who enables future prosperity and personal fulfillment.

STEM and art education as the two practices, although different located externally in disciplinary communities and modes of knowing and doing, that travel and embody the same pedagogical infrastructure and psychologies of schooling. The affective economies of the reason of the school subjects generate desires for acting on children among diverse geographical and historical spaces, such as Denmark, Mexico, Japan Portugal, Serbia, Spain, Sweden, the United States. The foreign is indigenous "reasoning" or knowledges for thinking, ordering, and classifying what is reasonable and affectively felt as significant for collective and individual destinies. The calculative reasoning that

appears homeless, unattached and without any historical location generate indexes of readiness for an anticipated future. The indexing and comparing are both emotive as championing national aspirations of ensuring children's preparedness for the globalized world of the 21ˢᵗ century (Popkewitz, 2022b).

Traveling Libraries

If I use UNESCO's Road Map (2006), words like "child development", "creativity", and "imagination" fold into pedagogical language of "best practices", "culturally appropriate methods of communication and transmission of knowledge, competencies, collaboration, participation, partnerships. The words appear words; seemingly homeless-ness, nonpolemic reasoning of the indigenous foreigners that travels as if a singularity and unity in the different settlements as the school curriculum, whether Paris, Tokyo, Bogota and Lisbon. The affective economy produces a cognitive structuring that the foreignness is transmogrified into feelings of being "at-home" as contributing and expressive of individual and collective hopes that anticipate salvation and redemption. **11**

The notion of traveling libraries is to think about how global languages settle in different historical and cultural spaces that are not merely a borrowing or "adding" to another social space. If I use S*TEM and arts education* as exemplars*, they are* indigenous foreigners that travel as global "authors" for designing the curriculum of schooling as the modern and modernizing school across different historical, cultural, and social spaces. STEM, for example,

11 My use of indigenous is directed to different phenomena but in fact does provide a strategy to engage the notion of indigenous as registers of recognition of other cosmologies outside of the calculative reason and its entanglements in colonial violence and settler displacements.

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Cybernetics travels as a mode of reasoning inscribed in the cognitive psychology that appears after World War Two in the United States, a theory of management to give attention to an open system to reason about managing machines and social life in post War Two. The reasoning is significant to the post war social sciences and humanities in creating phenomena as the objects for calculations. It forms at the interstices of other theories, the alchemies of the curriculum, and the tools of measurement and probabilities theories of statistics, for example, international assessments as a fold to activated in different settlements as comparative patterns of recognition and expectations of experience.

appears as a unified systems of knowledge that affectively acts as a global elixir for modernizing economies (Zheng, 2019; 2020). But the STEM as policy or curriculum practices never travels alone. It is assembled in the interstices of ideas, stories, technologies, and theories articulated in national educational policies, school life and research. The assemblages and connections are like *libraries,* different texts that seem like reading of a group of books sitting on a desk. While read differently and with different historical lines in getting on the desk, they somehow are placed together in a manner for thinking and planning that seems coherent and reasonable for acting.

Let me provide some familiar authors who travel as indigeneous foreigner but in traveling libraries. If the traveling of the American John Dewey, the Swiss Jean Piaget, and the Russian Lev Vygotsky are taken as exemplars, they connect in the traveling library of contemporary American cognitive psychology. They are no longer the single authors but something else. **12** That library in cognitive psychology connects Dewey, Vygotsky and Piaget with, for example, cybernetics, the alchemic practices of the school curriculum, and the liberalism of American political theories to shape and fashion the theories and empiricism. The interstices constitutes the psychology in enunciating intellectual (and cultural/social) conditions, relevancies, and expectations of the child's learning that is not the same as the individual writings.

The indigenous foreigners are assembled and connected with other texts/authors that are either faithful to the "original" but the settlements are new and something else. The historian Jürgen Herbst (1965), for example,

explored how German idealist historiography traveled to the US at the turn of the 20th century. The German idealism was embodied in the concept of *Bildung* that entered the US as instrumental historiography related to American political imaginaries of national exceptionalism linked with Calvinist notions of salvation and redemption and frontier myths of rugged individual. The German idealism was transmogrified into instrumental notions of teaching and learning that different coordinates in organizing the practices of the new common school. **13** Deleuze and Guattari (1986/1988) speak of this as the deterritorialization/reterrorization as modes of reason are taken out of their spaces of actualization and assembled and connected into different settlements.

The production of "seeing" is important to art education as traveling libraries. At one level, what travels as art in education occurs at the interstices of different historical lines that has little respect for geographical borders. Yet the traveling are entangled affectively in national policies, school reforms, research, and the curriculum as desires epistemically enunciated in notions of learning, and assessments (see, Popkewitz, Pettersson, & Ksiao, 2021). Dussel (2021), for example, explores the emergence of tactile pedagogy in the early-20th-century at the interstices of technology, art, and design that moved into education that are neither reductive nor additive but rather creative, vibrant historical practices. Those practices created new objects and distinctions in university seminars and laboratories and artistic workshops between Milano in Italy; Ulm in Germany; Chicago, Cambridge, and Los Angeles and through the biographical trajectories

13 The post-colonial historian Charabarty (2015) explores how German idealist notions of history associated with Leopold von Ranke was (re)visioned within as a disciplinary territory in India; entangled with colonial, anti-colonial and cultural differentiations that entered the epistemic constructions of history itself.

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of design educators who later configured digital media pedagogies and who saw the school, teachers, and children as pedagogical desires.

CONCLUSIONS AS INTENTED TO OPEN UP THE STUDY OF THE ARTS BY ITS CUTTING INTO ITS COMMONPLACES

The discussion has made the givenness of the objects of people and everyday life as events to study. The affective quality of schooling is that art, science, and mathematics are being taught. And they are talked about as if this is happing. The distinctions and ordering of arts education are spoken about learning, development, and growth of the child; and of the child "being" creative. Yet the argument is that such words as ways of reasoning presuppose and fix the relations in which they reside to elide power. While children study and "do" art in schools, the distinctions and classifications that order these practices are something else. Drawing and the tactile practices of pedagogy are historical formed and assembled as an exteriority of complex and different historical lines interiorized into the curriculum and pedagogy as the "nature" of the body and soul.

The chapter initially focused on these inscriptions as the making of kinds of different people that distributes differences. I argued that the political of schooling are in very distinctions, differentiations, and sensitivities in ordering and defining the school subjects – the child as a subject and the school subjects. At the interstices of "the reason" of modern schooling is the alchemy of the

school subjects, the comparative reasoning of "seeing" childhood that entails double gestures that paradoxically produces exclusions and abjections in efforts to include. The notions of indigenous foreigner and traveling libraries was to think of colonialization as a epistemic inscribing universalizing principles about the good life through which differences are produced and distributed. I shied away from such notions of Eurocentric for the binary divisions they imagine and historically erase the interstices in knowledge travels translated and settle (see; Popkewitz, Khurshad, and Zhao 2014; Wu 2013; Popkewitz, 2022c; Zhao, Popkewitz, & Autio, 2022 Zhao, 2018).

While this chapter is directly concerned with the politics of knowledge as a materiality, my focused has been in the making of people and the production and distribution of differences rather than a variety of the classifications and cataloguing prominent in contemporary scholarship. One such concepts is "Eurocentric" evoked an explanatory notion concerned with the conditions that produce social wrongs and inequalities. The essentializing elides other strands of European Enlightenment as they travel, fold and folding in varied and multiple settlements that today congeal in the critiques of anti-colonial and anti--racializing scholarship (Popkewitz, 2022c). More often than not, Eurocentric is used reductively as a marker and repository of power rather than historically delineating the effects in what Sylvia Wynter's (1995, 204) explored as the over-representations of Man in a complex infrastructure intricately tied to colonialization in the 19th century. Also the discussion avoided words "white" and "whiteness". While important to the politics of representations

for mobilizing centers of opposition, the distinctions are, I believe, historically limited for understanding the sensibilities and partitions that produce differences in the continua of value historically inscribed as differences and their double gestures. If I use Toni Morrison's book "Playing in the Dark", the examination of how blackness is embedded in white southern women's literature is, at one layer, a brilliant and provocative analysis. Yet it produces a dualism that is unable to explore the politics of complexities in which differences of sexuality, for example, are embodied and produced when "white" and "whiteness" serve as causal concepts. Noel Ignatiev (1995)"*How the Irish became White*", Bultanski's *The Making of a Class: Cadres in French Society* (1987), and the Vice documentary "Charlottesville: Race and Terror" **14** in which Neo-Nazi "placement theories" that racialize Jews and cast them as "not white", direct attention to the need to think differently in how the objectifications of people are made possible as identifiable forms generated as the possibilities for codification, administration and difference in the body and soul.

The issues of unthinking – but not losing site of the consequences- to think about how the classification of race, racialization and "whiteness" are produced become more significant when leaving the historical configurations produced in American and European conditions. As Junzi Huang (2022) explored, it is important to rethink notions of critique that travel into China today. Entangled with Bourdieuian models about the reproduction of inequality in education, they are connected with representational politics that do not diagnosis and make visible the

internments, enclosures and forces being installed on the surface of being produced so as to make possible alternatives.

It is the later strategies that this chapter explores, asking about the historical rules and standards inscribed in schooling through which differences are produced and distribution in the making kinds of people. It is a strategy without guarantees through historicizing the relations, conditions, and practices" in the fabricating kinds of people that make possible phenomena distributing and governing *differences* in which racializations are produced. The epistemic focus is linked with issues of colonialization as the embodiment of sets of differentiated relations internal to the system of classification and ordering the conduct of people and its entanglements and multiplicities of forms of knowledge in the enunciations of schooling that disavow and absorb differences (see, Mignolo, 2013; Sobe, 2013; Sobe & Oregón, 2014).

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CREAT_ED Project: The Historicization of the Creative Child in Education. Talk at the Seminar with Consultants

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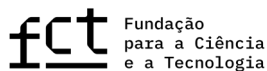
I would begin by thanking the team members for inviting me to participate in this meeting.

The **CREAT_ED** project seeks to historically understand how the idea of the child as a creative being became an almost unquestionable contemporary given in education. The team's intention involves perceiving how there are some complex lines enabling this 'present' and that need to be historicized as from the end of the 18th-century to post-World War II. Thus, this spans a time when imagination and creativity occupied an ambiguous place within educational discourses and prior to their commodification and homogenization.

As I perceive it, the central question is as follows: ***How is it possible to think about the child as a creative person in a long historical tradition?***

Here, creativity emerges not just as a name or a single label. This reflects an actor present in the world, an actor we encounter in different times and spaces. And, of course, we can find such actors in different sources, in different materialities. The invention of this actor made the Western art education movement possible alongside the epistemological construction of the field at an international level. This simultaneously enabled a certain kind of human, that is the creative child.

We here primarily follow four lines throughout the temporal arch situated between the end of the 18th-century and the post-World War II period:

1. The hopes and fears of creativity in education;
2. The child as a creative being within the child art movement and the fabrication of the "Other";

3. The spaces and materialities in the making of the creative child;
4. The conceptualization of the mind as both programmed and creative, from the essentialism of calculation to the cybernetic discourse in programming creativity in education.

The team aims to provide a systematic collection concerning the invention of the creative child from 1762 to 1973 through publishing an online timeline containing texts and images. This history starts out in Geneva and the publication of Rousseau's *Emile,* and arrives in Portugal with an OECD seminar in the 1970s.

The CREAT-ED project seeks to describe the historical derivations, continuities and displacements that have led to the widely consensual contemporary narratives in conjunction with those adopted by governmental entities and international policymakers as regards the benefits of the arts to education and the constitution of personal identity through the notion of creativity.

In my opinion, project researchers are here discussing two broadly interconnected questions. Not only how we became what we are today - through the problem of the creative child – but also the intention to understand how we can become strangers to ourselves from a directed look at the past. This represents a fantastic challenge, and one that requires the conceptual apparatus team members have presented over these three days.

The team stands by conceptual definitions not being perceived as borders but rather as spaces open to new processes of articulation.

My intervention today focuses on only one specific part of the conceptual device. I am speaking as a historian - which is actually my role - and I seek to address some theoretical and methodological issues.

It is very important to avoid the criticism made by many historians of this type of research that approaches long periods. The usual critique made by my colleagues is that we are undertaking anachronic analysis. They say we do not respect the different contexts and different historical realities. I fail to agree with this critique. The conceptual apparatus chosen by the team seems to be appropriate and correct.

The central concepts I identify in this project are: History of the Present, Archives and Events. These concepts will allow the project to assert and, I suppose, in the years to come, leave an innovative mark in the field of historical studies and artistic education in Portugal and beyond.

I think of these tree concepts - History of the Present, Archives and Events – as tools and as the essential glue to maintain and aggregate the same working program across such different times, spaces, subjects and other materialities.

My first set of considerations goes to the notion of the history of the present

The history of the present approach is deployed in this project, as far as I understand, to unveil the strategic purposes of a *biopower* which, at its very origin, had efficiently correlated the promotion and inculcation of artistic values with the normalization of child populations. To this end, I would maintain that the CREAT_ED project proposes analysing a timeline in which art, aesthetic experiences,

practices of the *self* and governmental rationalities were articulated in order to produce specific kinds of social actors and manage their fates and outcomes.

Of course, the timeline conceived for this project wishes to describe the child-artist as a subject whose *reason* entails, yesterday and today, creativity, social skills, open-minded-ness and problem-solving abilities, a set of competencies deemed necessary to cultivate flexibility and adaptability to social and economic uncertainty, newly developed functions and professions, contexts and structures.

Im my opinion, the concept of genealogy, also developed by Foucault (2008) following Nietzsche, is essential to interpreting the type of operation this project seeks to accomplish. As I perceive it, the CREAT_ED project objec-tive is not to return to the origins but rather to intersect the continuous emergence of a problem. In its critical vocation, genealogy endows us with a history of the present and thus leads the historian to a radical different way of reasoning about this: what is strange and distant becomes familiar; and, on the contrary, what is natural today appears strange following genealogical analysis. The present starts to be considered within its scope of conditionality and through this path we can emphasi-ze the complexity, the contingency and the fragility of historical events. The genealogical task differs in its goals from traditional historiography because it both avoids the desire to determine the metaphysical essence of an object, the origin or the source that brings it to life as well as any explanation based on stable shapes or linear and uninterrupted continuities. Instead, genealogy seeks to establish the relationships among the diverse discursive

practices that shape our identity, paying great attention to the local dynamics, the temporal discontinuities and the factual accidents. In this perspective, the aim of historical analysis involves demonstrating how our objects got historically constructed, piece by piece, compressing very different traditions and that we do not imagine are necessarily associated never mind merged. These account for very specific narratives, with some discontinuous but nevertheless bearing general implications.

My second set of considerations concerns THE NOTION OF ARCHIVE. The archive constitutes the very center of the project's operations. A major point to this team stems from how the archive has been elevated to a new theoretical status.

Hence, for this reason, I will outline this archive notion concept and I shall do so according to a group of authors we all know well: Foucault, Derrida, Hacking, and De Certeau. One may state that archives are both sites of the imaginary and institutions that shape the histories they conceal and reveal as well as reproducing the power of the state. Power and control, as many scholars have pointed out, is fundamental to the etymology of the term. From the Latin *archivum*, "residence of the magistrate," and from the Greek arkhe, to command or govern, colonial archives ordered (in both the imperative and taxonomic sense) the criteria of evidence, proof, testimony to construct moral narrations.

I begin with Michel Certeau:

The transformation of archival activity is the point of departure and the condition of a new history.

I will now advance a brief discussion around the archive

concept according to Jacques Derrida who outlines two important principles from the word archive (arkhê): the archive designates the physical principle, the place or shelter where things begin, and, simultaneously, the principle of law, the place where authority and order are exercised.

As we may see in your beautiful and arboreal timeline, the theoretical and methodological approach of the team demands a rich and expanded documental cluster. It requires a particular focus on the rules of discursive formation and on the historical organization that Michel Foucault termed *enunciative function*. In my view, it is essential to underline that discursive formation is subordinate to the concept of archive. According to Foucault, the archive did not refer to the sum of all the texts that any civilization has maintained as testimony to its past or to its identity. In contrast, the Foucauldian notion of archive addresses the discursive practice in which a document is taken as an event, as a thing and even as a monument. In theoretical terms, the historian has to understand the group of rules that, in a certain historical stage, expressed exactly what can be said, what can be preserved, what can be reactivated and, finally, what can be established. In so doing, I assume we will locate ourselves close to all those historians who no longer worry about the expressive value of the particular historical source as we work the source in its interiority and within a relational space. It is exactly this potential analytical operation that I think your timeline aims to present.

Furthermore, the central objective of this project is, I suppose, to produce analysis from an undifferentiated

'*mass of evidence*', that requires isolating and grouping into large sets. I understand how only the practice of documentary agglutination can lead researchers to establish complex historical landscapes. This is, in sum, establishing and describing forms of legitimacy among different series of events. This is a great and wonderful challenge. Congratulations!

As academics, imagining new futures, we want to ask about new pasts, we want to look back and ask, "What else was going on while the edifice of Western archival science was undergoing construction?"

By archive, we also do not mean the totality of texts preserved by a culture to attest to its past nor the institutions in which those texts are preserved; rather, this encapsulates "the general system of the formation and transformation of statements" and the "set of rules" governing a particular episteme. This conceptual archive establishes, among other aspects, what may be spoken of in discourse, what statements will survive and disappear, what statements will be recognized as valid and invalid and which individuals, groups and classes gain access to particular discourses.

In my view, scholars do need to move on from archive--as-source to archive-as-subject.

This surveys archives as epistemological experiments rather than as sources. Most importantly, it looks to archives as both transparencies on which power relations were inscribed and the intricate technologies of rule in themselves.

The team focus is on archiving as a process rather than archives as things. We look to archives as epistemological

experiments rather than as sources and to colonial archives as cross-sections of contested knowledge.

In brief, the archive is what makes one given discourse possible in a culture and not another. The archive is certainly the mirror of a power/knowledge relationship; but the power/knowledge relationship refers to a work that is increasingly centered on the self.

Archaeological analysis presupposes the end of a formalist interpretation of statements (*enoncée* in French) in favour of understanding the historical conditions in which systems of statements are formed. In my view, is this quest that Foucault calls for in the archive. By this, he does not mean the sum of texts that a culture, at any particular point in time, decided to retain as a mark of its own past or as testimony to an identity maintained over time; equally, Foucault does not have in mind the institutions in which any society records and preserves the discourses on which collective memory is built.

The new meaning of archive in Foucault refers to a particular level that is very different from the usual. The archive becomes a dimension of a practice that brings a multiplicity of statements as regular events, as matter available for processing and manipulation. Thus, the archive appears as the law of what, at a particular given moment, can be said and which governs the appearance of discourses: the archive is the general system for the formation of enunciations. This is therefore not associated to a type of formal analysis of the texts or to their exegesis **but** to a set of rules that should be observed as they will indicate to the researcher the ways in which discursive practices gained their enunciability as events in each epoch and

were in fact able to function with the status of things. In another work originally published in the late 1960s but later extensively revised, Foucault then attempts to list the various rules that constitute the archive in a particular historical phase and society:

We can understand the concept of archive in five dimensions or layers with several questions inside. Again, I here follow Foucault:
"1. The first dimension of the archive refers to the limits and forms of the *sayable*. What is it possible to speak of? What is the real domain of discourse? What type of discursivity is assigned to this or that domain (what is allocated as matter for narrative treatment?; for descriptive science?; for literary formulation?)?
2. The second dimension of the archive approaches the limits and forms of *conservation*. Which statements are destined to disappear without any trace? On the other hand, which are destined to enter into human memory through ritual recitation, pedagogy, amuse-ment, festival, publicity? Which are marked down as reusable and to what ends? Which statements are put into circulation and among what groups? Which are repressed and censored?
3. The third dimension of the archive reflects the limits and forms of *memory* as they appears in different discursive formations. Which utterances does everyone recognize as valid, or debatable, or definitely invalid? Which have been abandoned as negligible, and which have been excluded as foreign? What types of rela-tionship are established between the present system of

statements and the body of past statements?
4. The fourth archive dimension refers to the limits and forms of *reactivation*. Among the discourses of previous epochs or of foreign cultures, which are retained, which are valued, which are imported, which attempts are made to reconstitute what? And what is then done with them, what transformations are worked upon them (commentary, exegesis, analysis), what systems of appreciation are applied, what roles are they given to play?
5. The fifth dimension of the archive spans the limits and forms of *appropriation*. What individuals, what groups or classes have access to a particular kind of discourse? How is the relationship institutionalized between the discourse, speakers and its destined audience? How is the struggle for control of discourses carried out between classes, nations, linguistic, cultural or ethnic collectivities?" (Foucault, 1991: 59-60).

The project subject then gives way to a different challenge: identifying the conditions of possibility that shaped what could be written, what warranted repetition, what competencies were rewarded in archival writing, what stories could not be told, and what could not be said.
As Ian Hacking states about social categories, archives produced as much as they recorded the realities they ostensibly only described. They told moral stories, they created precedente in the pursuit of evidence, and not least they create carefully tended histories.
In turning from an extractive to a more ethnographic project, our readings need to move in new ways through

archives, both along their fault lines as much as against their grain. De Certeau once defined the science of history as a redistribution in space, the act of changing something into something else. He warns us that our historical labours in the archives must do more than "simply adopt former classifications" and must instead break away from the constraints of "series in the National Archives" replaced with our own new "codes of recognition" and "systems of expectation". However, such a strategy really depends on what we think we already know.

GENEALOGICAL ANALYSIS

With these questions in mind, we then can move on to the genealogical analysis of modern practices of subjectivation. I here have in mind – and I think you do too - the remote historical processes through which the domains of ethics and politics came to be interconnected. This segment explores the interplay of *governmentality* and *technologies of the self* in the formation of the modern state, emphasizing a notion that would eventually prevail both in the political and educational realms: that which governs the *conduct* of *free and autonomous subjects*, subjects who exercise reflexive sovereignty over their own selves and, in doing so, are driven to freely conform to the moral principles prevalent in their time.

This CREAT_ED project aims to rediscover the connection between creative practices, care of the self and public policies. Here, in my view, the genealogical gaze will observe the creative child, the pupil-artist, whose roots could be traced back to the late 18th century as it was then

being strategically problematized within psycho-peda-gogical discourses and the new educational paradigm of *self-government*. The creative child was to become an active participant in his/her own educational process, which now included arts and crafts as a paramount tool for developing the child's physical, psychic and intellectual capabilities. Producing the *creative citizen to be*, under these circumstances, meant bringing about voluntary conformity to the democratic-liberal ideal and envisaging the future as a mere projection of existing institutions. Today, in the 21st century, these incorporated principles of self-discipline are now intertwined, most notably in the rhetoric produced by international policymakers, such as the OECD and UNESCO, on a wide range of *transforma-tive competencies* specifically modelled on artists, their abilities, practices and attributes. The creative and artistic *ethos*, rather than simply an instrument, became the very paradigm through which the pupil is projected into an uncertain future fraught with change and ambiguity. From this perspective, we must conclude that there is no point outside of power. And we can go still further: power is the great parasite of all thought claiming to be different and critical. The capture that has been made of the concept of creativity and its distribution as the central axis of the language of power leads us to the same conclu-sion. There is no exteriority in relation to power. Thus, to establish this evidence in the field of artistic education, a field so full of redemptive promises, reveals the great courage of this team.

It is also very important to underline the concept of Event. The team states it looks at the creative child as an event, as the making of a certain type of person. And the team also maintains that the task of considering the creative child as an event presupposes this yet they are treating discourse in its pure materiality. Hence, discourse here is not applied as a descriptor of reality but rather as a producer of that reality. As such, the creative child as an 'event' is made up of several layers that become invisible in the present but nevertheless are that which makes this present possible. I believe this embodies the strategic objective of your timeline.

This kind of operation is extremely important for a historian like myself. In your huge timeline, you depict a genealogical operation that allows us to portray the reappearance of the same concepts in different forms. This is so important as ***within the timeline we can all*** understand how synchrony and diachrony disappear as the classical way of interpreting the real. The researcher can hence replace and regroup what would otherwise be dispersed at any given moment. That's exactly what happens. You are always depicting the same practice of regrouping and dispersing discourses. In front of our eyes, we have always the eruption and dispersion of clusters. In so doing, one may say that the researcher then creates his/her own historical events. However, it is not historical events that impose themselves on the historian. And here we arrive at the precise moment when the researcher becomes an archivist.

The timeline also allows for different readings. This also allows readers to produce, with their actions, new regroupings and new relationships with the material that the team makes available. The reader circulates in the timeline and, by doing so, they can also imagine themselves as archivists.

I am now reaching the end of my presentation. I am a historian fascinated by the operations of fragmenting and regrouping statements and materials. The conceptual device presented by the CREAT-ED team displays every condition necessary to make the creative child emerge in layers different to the usual. And in sometimes ambivalent and contradictory layers, which is great!

It's a fantastic operation you are building. Congratulations! Thank you.

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