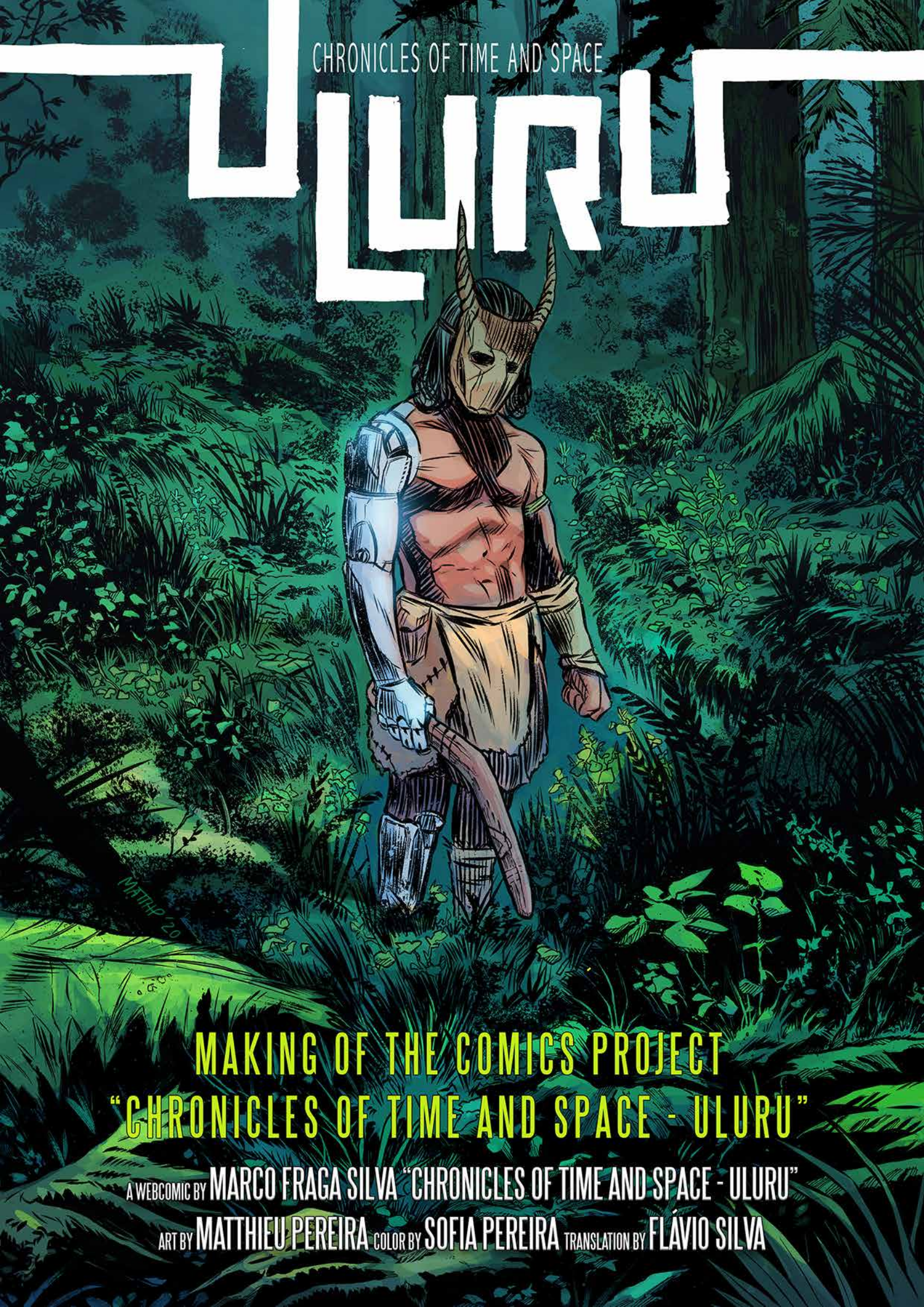

CHRONICLES OF TIME AND SPACE
ULURU
MATTHIEU 20
MAKING OF THE COMICS PROJECT
"CHRONICLES OF TIME AND SPACE - ULURU"
A WEBCOMIC BY MARCO FRAGA SILVA "CHRONICLES OF TIME AND SPACE - ULURU"
ART BY MATTHIEU PEREIRA COLOR BY SOFIA PEREIRA TRANSLATION BY FLÁVIO SILVA

CHRONICLES OF

TIME AND SPACE

This book is my atempt at a 'making of' document where people can understand a bit of the process behind the creation of my Ph.D. thesis and, more specifically, the creation of the beggining of a Portuguese transmedial franchise. My practice-based thesis is the first stepping stone of a much longer journey where the main goal is to tell interesting and thought-provoking stories through different media.

This 'making of' will not gather everything that is being planned since 2011 for my storyworld, but it will contain much of what I, Matthieu Pereira, Sofia Pereira, and Flávio Silva did during my doctotal project years. I will include a few articles I wrote about my creative journey and other matters on The Portuguese Portal of Fantasy and Science Fiction.

These articles – "My Exploratory Journey or: How I Learned to Stop Worrying and Love My Ph.D." –, divided into several log entries, were writen and published during the process, therefore, bear in mind that the project was evolving and that some of the things written have changed. There are ten articles, or ten parts, under the mentioned title published on the following dates: January 9, 2020; March 31, 2020; April 18, 2020, July 20, 2020; August 3, 2020; October 25, 2020; January 21, 2021; June 26, 2021; July 10, 2021; December 4, 2021.

This document includes the making of the cover of the book "Chronicles of Time and Space - Uluru", which was also used as the promotional poster. The poster was published in several websites and was part of the book as well. It was also included in two magazines: "Giby", and "Tales From Afar".

At the end of this document, I have included several short stories that were written and drawn in the last few years by several illustrators. Every story is part of the expanded universe of Crhronicles of Time and Space.

Enjoy!

My Exploratory Journey or: How I Learned to Stop Worrying and Love my Ph.D. (Part One)

I'm developing a practice-based Ph.D. thesis in Media Arts at the Lusophone University of Humanities and Technologies, in Lisbon, under the title "Transmedia Storytelling and Speculative Worldbuilding: Graphic Literature and Cinematographic Strategies in the Construction of a Transmedial Franchise". In the theoretical section, I will be researching Transmedia Storytelling, Speculative Fiction, Comics, and Worldbuilding; for the practice-based component, I will create a speculative fiction graphic novel and a transmedial strategy for the promotion of the storyworld I'm building (e.g. book trailer, website, poster).

Theory allied with practice and hands-on strategies are paramount to the development of this thesis. The metaphor of the 'exploratory journey' as a methodological process, defined by Carole Gray and Julian Malins on their book – "Visualizing Research: A Guide to the Research Process in Art and Design" –, will be used for the construction of the academic text. My former studies in Graphic Design (BA) and in Cinema Studies (MA) justify and propel me into such an approach. As far as I know, in Portugal, my doctoral research is the third Ph.D. thesis on Transmedia Storytelling (Soraia Ferreira, Marta Noronha e Sousa), and the fourth on Comics Studies (Pedro Moura, Joana Afonso, Inês Garcia); this should probably change before I finish my 'journey' in 2022. This article's goal is to help me think about my writing process and to share what I'm doing. Writing is a form of thinking 'outside' our head and for me (as for all writers) the re-writing process is very important. The American author Andy Clark believes we are all "natural born cyborgs" because of our ability to integrate external tools and devices that alter and transform the way our mind works; he believes our "mind is less and less in the head" ever since we started using mind-expanding technologies such as talking and then writing. So, not only is this process of writing and re-writing very important for the stories I want to tell but it's also important for the writing of the thesis itself. More articles like this will be written on my 'exploratory journey' as a sort of ship's log helping me to better understand my project.

Creating a transmedial franchise is not an easy task and strategies differ greatly. The public will ultimately be the judge and vouch (or not) for the quality of the product. The worldbuilding I'm constructing is big and I'm developing several stories. I've finished one script and I'm working with an illustrator on the production of the graphic novel. I'm already writing the second script of what I think will be a trilogy. After this trilogy, there's another big story I want to tell and two prequels. All narratives are set in the same storyworld. The trilogy is about a character named Uluru (a rough drawing is available below). The first book works as a stand-alone story; the second and third graphic novel will be produced after I've finished my thesis. The "Uluru – First Volume" will be available online in 2021 (in English, French, Mandarin, and Portuguese); three pages will be uploaded every week as it is commonly done with digital comics and webcomics. In 2022 a crowdfunding campaign will be launched to publish

a hardcover high quality print of the 138-page story. My goal is to initiate a transmedial franchise through the medium of comics. For this purpose I'm working with strategies usually applied for audiovisual projects; tools such as the script, the logline, the step-outline, and the production bible are of the utmost importance in the pre-production of the graphic novel. I'm using the cinema script formatting style and not the typical comics format. This is intentional; the goal is to adapt the script of the graphic novel into the animation medium. Moreover, I have the objective of sending the script to the seventh edition of a Portuguese language script contest ('Guiões – Festival do Roteiro de Língua Portuguesa'). This is a very interesting contest and a good way of showcasing the story to a specialized public and producers.

The logline, also called 'one-line' in Hollywood, is a synthetic description of the story in one paragraph containing three elements: protagonist, goal, and obstacle. The website https://logline.it is a very interesting platform where people share and evaluate/ criticize loglines. On this website, a sort of formula is given. The paragraph must contain the 'inciting incident', the protagonist description, and its goal; It's presented this way: "When [a major event happens], [the hero], must [do the main action]". For a better understanding of the structure an example is made available: "When a swimmer is brutally killed by a shark, a small-town sheriff must stop the killing monster." The same formula has an upgraded version on the website http://the storydepartment.com: "When [a major event happens], a(n) [flaw + main character] must ([overcome the flaw], and) [do/pursue the main action/goal]." Again, an example using "Jaws" is offered: "When a swimmer is killed by a great white, a bureaucratic sheriff must take responsibility, protect the people, and kill the shark."

The 'one-line' is very important for the scriptwriter as an insightful tool but also for selling the idea to others with a short but incisive paragraph. For now, Uluru's first monomyth logline is as such: When a lonely young boy raised by two intelligent machines dreams that they are withholding information, he decides to run away from home overcoming his fear to be alone in search of others like him. The step-outline, known as 'escaleta' in Portugal, is a short version of the story scene-by-scene. This is a very useful tool to handle the flux of the plot and sequence choices before writing the script. For me, this is one of the most important steps to structuring the story. I began by using the 'monomyth' structure, as Joseph Campbell and Christopher Vogler present it, and then I used the step-outline to flesh out the concepts and scenes I wanted to show. I found later, when writing the script from the step-outline, that I was critically engaged in the text and creatively making changes by processing the information. I changed my story a lot from the step-outline structure to the final script getting rid of sequences that didn't add anything and changing the order of some events. Using this method allowed me to think and 'feel' the story tapping my creativity and the research I did on several areas for the worldbuilding.

The production bible, usually used in television projects, is the way I decided to share all the information I gathered for the production of the graphic novel. It's useful for me and for the illustrator as a tool for developing the concept art, page layouts and the design of the book. My production bible contains: logline; pitch, description of the story; the genre; character and worldbuilding information; step-outline; referential art; script; short comics about Uluru previously published; the synopsis of other stories in the same storyworld; information about the crowdfunding campaign.

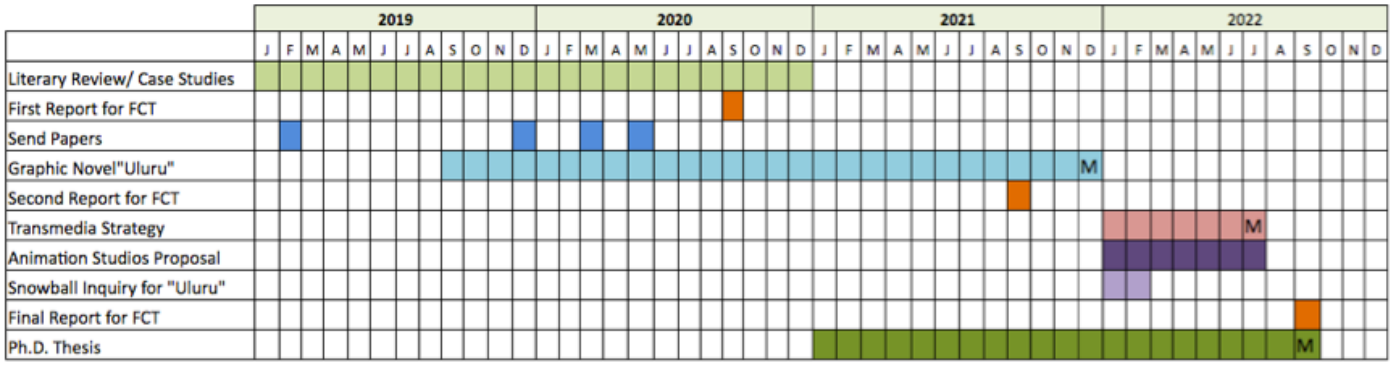
I find the production bible a useful tool not only to discuss the book with the illustrator but also to think about the way I will present some of the information on the Ph.D. thesis. The project will not be over in 2022 when I'm to defend my academic research. I hope this is just the beginning of a longer journey.

My Exploratory Journey or: How I Learned to Stop Worrying and Love my Ph.D. (Part Two)

I'm developing a practice-based Ph.D. thesis in Media Arts at the Lusophone University of Humanities and Technologies [01], under the title "Transmedia Storytelling and Speculative Worldbuilding: Graphic Literature and Cinematographic Strategies in the Construction of a Transmedial Franchise". The metaphor of the 'exploratory journey' as a methodological process, defined by Carole Gray and Julian Malins on their book – "Visualizing Research: A Guide to the Research Process in Art and Design" [02] –, will be used as a research methodology for my Ph.D.

In this second travel log, similar to the 'reflective journal' mentioned in the book, I'll be digging deeper into the necessary steps to make the journey. These reflective articles will replace the 'journal' but will maintain most of its properties: "a tool for describing, evaluating, summarizing and planning." The authors Gray and Malins used a generic research process "familiar to most disciplines" but made a twist on it, trying to adapt it to the more visual metaphor of the journey; therefore, the book is divided into several chapters that reflect the structure: 1) Planning the Journey; 2) Mapping the Terrain; 3) Locating your Position; 4) Crossing the Terrain; 5) Interpreting the Map; 6) Recounting the Journey. On 'Planning the Journey' it's paramount to have a methodology (and methods) and an investigative question. The methodology process, besides the overall 'exploratory journey' structure, will be composed of several methods and tools: mixed qualitative research approaches using case studies and comparative analysis. For that, I need a good bibliography list divided by the main concepts and areas of investigation. At the 'suggestion' of fellow investigator Lisa-Marie Cabrelli, I'm now using an x-cell document to better compile the many articles and books I have to read. Lisa-Marie Cabrelli is "pursuing a degree in Creative Writing"; as a research method for her Ph.D., she decided to create a podcast called "Building Dystopia – A Worldbuilding Journey", where she interviews several transmedia and worldbuilding experts, and other creative people [03].

There is another great podcast that I'm listening to called "World Building for Masochists" [04], hosted by the authors Alexandra Rowland, Rowenna Miller, and Marshall Ryan Maresca. All episodes are great, filled with tips, pieces of advice, and good information, but I suggest starting with the "Episode 11: Threads of Life". The episodes have transcripts, which can be useful when citing this podcast. I guess I should introduce an x-cell tab just for podcasts.
For the literature review, I will exploit the method of Analytic Reading (textual analysis, thematic analysis, interpretative analysis, problematization, and personal synthesis). This pragmatic technique seems adequate and it will be used alongside empiric research, discourse analysis, and hermeneutic approaches.
'Mapping the Terrain' when so many tasks have to be conducted and managed is difficult. I had to design a timeline to help me schedule the most important tasks. This is helpful but volatile; changes will be made. Nonetheless, this a very important tool to understand the adequate timing for certain tasks. Because I have a scholarship [05] I'm obliged to send reports of my research (orange squares). These reports are very important because they will allow me to continue receiving government support. Without the scholarship, my project is not viable. I've applied for three years, therefore my journey will be conclud-



M - milestones

ing in 2022.

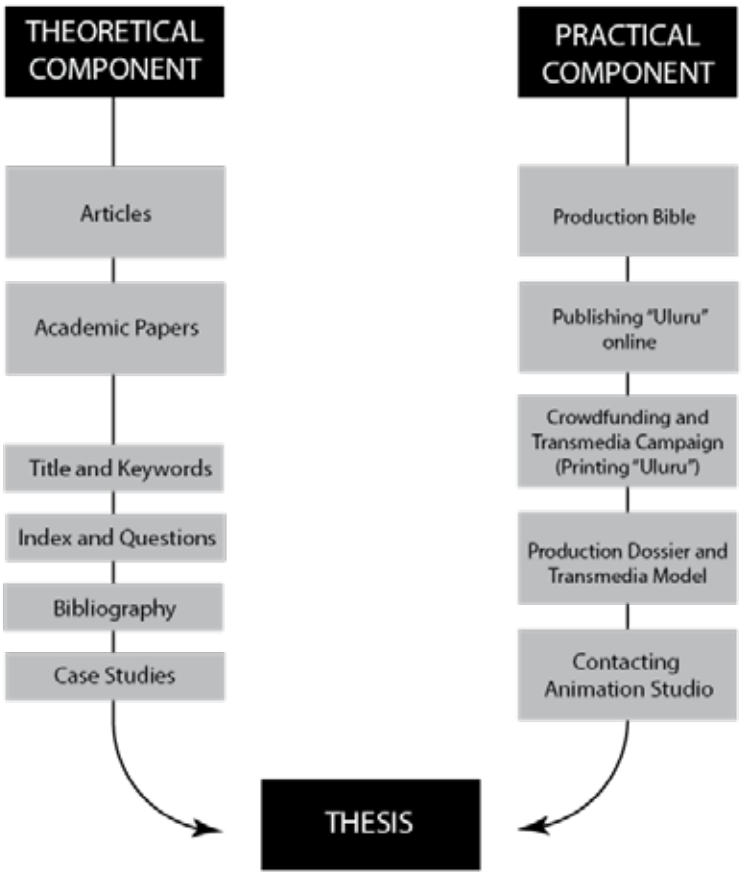
I have installed Mendeley on my computer but I think the x-cell document with several tabs, divided by areas of expertise, is enough. Mendeley is a free reference manager used to organize research and an academic social network [06]. Because I have my thesis index, open for changes certainly, and because I know the thesis contents I just need to know which books are the best references for the themes, concepts, and areas I'm researching. Reading books, papers, Ph.D. thesis, and listening to good podcasts is the best way to understand who are the 'gurus' and which texts are mandatory readings.

These articles I'm writing work as a kind of reflection, substituting, as I said before, the 'reflexive journal'; a useful device to map the terrain. These, and the academic papers I want to publish, will make me aware of the surrounding landscape of my journey and specific features of the terrain ahead. Gray and Malins say that the only way to "avoid dead ends or going over old ground" is "by making a thorough survey of what is out there and developing a critical understanding of what is directly relevant to your own research context." The 'Locating Your Position' phase was done when I made my candidacy to the aforementioned scholarship. According to Carole Gray and Julian Malins, this phase has to present the research question. For now, it's as follows: how to create and develop an expansive storyworld through transmedia storytelling aesthetics?

To better grapple with the complexity and many concepts I'm trying to work with, two secondary questions were written: 1) what distinguishes the worldbuilding of a transmedia storytelling project from other fictional storyworlds?; 2) the contemporary hegemony of speculative fiction originates from its archetypal and mythological elements, and its greater propensity for transmediation?

The State of the Art section of my scholarship candidacy allowed me to understand where I am in terms of Portuguese and foreign research efforts in the main areas of my own investigation. The main areas are Transmedia Storytelling, Worldbuilding, Speculative Fiction, and Comics. My keywords are Speculative Fiction, Mythopoeia, Storyworld, Transmedia Storytelling, and Worldbuilding. The State of the Art I wrote has to be updated, of course, therefore, I won't be going over it now.

For a better understanding of my journey I created a list of the main tasks I have to tackle with along the way: 1) Bibliography compilation and review; 2) Case studies selection and review; 3) Writing reflexive articles; 4) Writing academic papers for journal publication; 5) Creating the graphic novel "Uluru" (uploading the story to the Internet);



6) Creating the transmedia strategy for promotion, and the crowdfunding campaign for printing the book "Uluru"; 7) Creating a questionnaire (snowball method) for readers' feedback; 8) Creating a Production Dossier to be sent to several animation studios and try to adapt into audiovisual the "Uluru" graphic novel and the worldbuilding I have created (there are other stories); 9) Writing the thesis.

'Crossing the Terrain' requires "a variety of vehicles for exploration (...) providing us with different means of evidence collection and different per-

spectives of the issues." For the several tasks I have to accomplish, I will need different methods and methodologies. I've mentioned some of them. Gray and Malins talk about 'mind-mapping'. This is a useful tool to visualize the structure of my practice-based thesis, therefore I decided to do a mind map to help me memorize the several components of my project and understand how they fit together. This is an important visual aid for thinking about the structure and the content of my doctoral project.
A very important component of crossing the terrain is certainly the academic papers I want to publish, where I investigate themes that are pertinent for my thesis. In January 2020 the online journal "Ação Midiática – Estudos em Comunicação, Sociedade e Cultura" [07] published its 19th issue, dedicated to the theme 'Myths, Media, and Imagination'. I have, on this issue, a paper of my own, titled "The New Myths of Speculative Fiction Cinema: How Mythical Thought is Returning in the Contemporary World". The abstract is below.

"This paper argues that the decline of myth and mythical thought is reversing and that the substitute of ancient myth in modern societies – politics – has been replaced by the speculative fiction genre of cinematic storytelling. With this in mind the paper creates a link between: our species ability to tell stories and our necessity to consume them; the importance and characteristics of myth and mythical thought; the human craving for mythical stories; the contemporary speculative fiction trend worldwide in the box office; and a study of the most influential films of all time." [08]

I'm now working on another paper to send to the "International Journal of Film and Media Arts" [09], an open access publication subsidized by the Film and Media Arts Department of Universidade Lusófona de Humanidades e Tecnologias. I'm still writing the text (abstracts to be submitted by 28 April 2020).

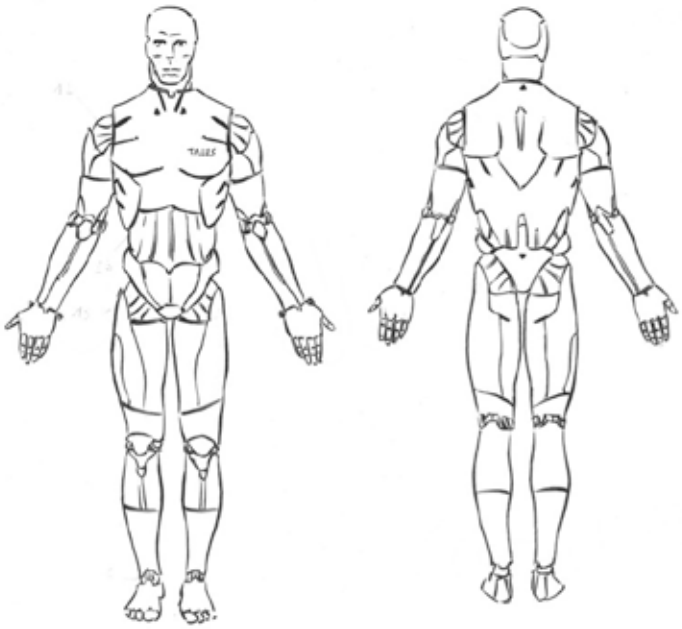
'Interpreting the Map' of my journey will allow me to have a clear view of my final destination. I guess this is the first step for 'Recounting the Journey' or, the writing of the thesis. But defending my thesis will not be, actually, the end of my project. This exploratory journey is just the beginning of a longer one. The graphic novel "Uluru" is the first monomyth of a trilogy about this character (two monomyths) and there is another big narrative I want to tell on this storyworld. This other story will be titled "Dragon Head", and takes place more than 500 years after the "Uluru" trilogy. There are other stories.

References

[01] www.ulusofona.pt
[02] www.visualizingresearch.info
[03] https://buildingdystopia.com
[04] https://worldbuildingformasochists.podbean.com
[05] www.fct.pt
[06] www.mendeley.com
[07] https://revistas.ufpr.br/acaomidiatica
[08] https://revistas.ufpr.br/acaomidiatica/article/view/68241/40269
[09] https://revistas.ulusofona.pt/index.php/ijfma/index

My Exploratory Journey or: How I Learned to Stop Worrying and Love my Ph.D. (Part Three)

This is the third travel log entry of my 'exploratory journey'. I'm developing a practice-based Ph.D. thesis – entitled "Transmedia Storytelling and Speculative Worldbuilding: Graphic Literature and Cinematographic Strategies in the Construction of a Transmedial Franchise" – in Media Arts at the Lusophone University of Humanities and Technologies. This log entry will address the artistic input illustrator Matthieu Pereira [01] is developing for the sci-fi graphic novel "Uluru", part of the hands-on practical component of my thesis.



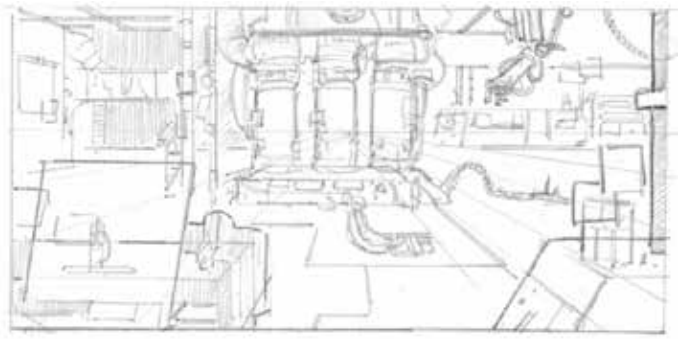
The production of the graphic novel will be in itself a journey with specific stopovers. Because I'm using audiovisual strategies and adapting them into the production of comics I will be dividing the production of the book "Uluru" into four stages: 1) pre-production; 2) production; 3) post-production; 4) promotion.

These four steps seem to be able to be encapsulated by the overall structure of my exploratory journey. On part two (check the last article) I presented the structure I'm using, taken from Carole Gray and Julian Malins' book – "Visualizing Research: A Guide to the Research Process in Art and Design" [02]. The research concept of the exploratory journey they present is divided into several stages: 1) Planning the Journey; 2) Mapping the Terrain; 3) Locating your Position; 4) Crossing the Terrain; 5) Interpreting the Map; 6) Recounting the Journey.

As I see it, the overall stages of my journey can be encapsulated into the production of the graphic novel (a journey within a journey). On pre-production, it's important to plan and understand what kind of product you have at hand and what the market has to offer. On production, one has to produce the pages of the book. On post-production, it's important to look at the book as an object and prepare it for printing. On promotion – I intend to create a crowdfunding campaign – it's kind of a look back to the process of thinking and building the book; the crowdfunding campaign is often filled with elements from the pre-production and production for a better understanding of the product. Storytelling is mighty important not only to the story but also to the webmarketing strategies involved with funding online. People enjoy storytelling but, because we are bombarded with stories every day, they are more demanding, and that's a good thing. The illustrator and I are both aware of this and doing our best to create a good product that people will enjoy.

Matthieu Pereira is drawing and conceptualizing graphically the worldbuilding I generated in the script, on the Production Bible, and other documents. He's not just the illustrator; he has 'carte blanche' to come up with different ideas, making this a collaborative project. The first task he handled was the concept art.

The researchers Abu Shamsuddin, Baharul Islam, and Kabirul Islam, on their paper "Evaluating Content Based Animation through Concept Art" [03], share an interesting definition of 'concept art' that I will use here: "Concept art is an appearance of illustration where the focal purpose is to express a visual demonstration of a design, thought, or mood for applying in video games, films, animation, or comic books before it is put into the ultimate creation. Concept art is a major element of idea generation, environment creation, background design, retail design, set design, fashion design, and architecture design."



It's also important to understand the origins of concept art and make a distinction between illustration and concept art. The Finnish concept artist Julia Rässa, on her bachelor's thesis – "Concept Art Creation Methodologies: Visual Development of "Rock Boy" [04] –, cites the author Didier Ghez [05] and shares the information that the 'concept art'

expression was coined by Walt Disney during the production of "Snow White" (1937). When making a distinction between concept art and illustration she says as follows: "In brief the key difference between illustration and concept art has been defined as illustration's need to be visually appealing and concept art's need to be visually informative. Those qualities are not to be mutually exclusive in both disciplines but their core functions are fundamentally different."

The 'mood board' helps the artist understand the intended narrative atmosphere and make better concept art. The mood board is a crucial element of the pre-production for the graphic novel. This is an important tool for creating concept art. Both Matthieu and I researched images and concept art from videogames and movies that best show what we envision for our book. Some of the images are on the Production Bible, which helps us understand how we will resolve the story visually, and functions as catalyst fodder for brainstorming. I also shared with the illustrator Matthieu the concept art that Vasco Mariano did before he got in this project and the pages of three short comics within this universe I produced with the help of the illustrators Ana Lopes, Filipe Duarte, and Diogo Alves.

The indie director Jason Boone has several tips on how to create a mood board in his article "The Mood Board: Set the Tone for Your Next Short Film" [06]. For him this is one of the most important elements of his 'pitch deck' (brief presentation with investors, partners, or customers) because it "helps convey the look and tone of the film". The most important elements he mentions, and the appropriate ones for a black and white comic book, are the characters, locations, wardrobe and props, framing/ composition, lighting, and similar projects.

LITERATURE	AUDIOVISUAL
Literature: "The Lifecycle of Software Objects" (Ted Chiang) The Shattered Sea Trilogy (Joe Abercrombie)	**Cinema:** "Ex Machina" (Alex Garland) "Prometheus" (Ridley Scott) "I Am Mother" (Grant Sputore) "The Clan of the Cave Bear" (Michael Chapman)
Comics: "Les Chasseurs de l'Aube" (René Hausman) "Sharaz-de: Tales from the Arabian Nights" (Sergio Toppi) "Andromeda, or The Long Way Home" (Zé Burnay) "Human" (Diego Agrimbau & Lucas Varela)	**TV:** "The 100" (Jason Rothenberg) "Westworld" (Lisa Joy & Jonathan Nolan) **Videogames:** "Horizon Zero Dawn" (Mathijs de Jonge) "Orken" (unreleased)

A mood board can be done in several ways but is always composed by several images.

As for similar projects, or references, it's easier to talk about the stories I used as inspiration for narrative, visual, or conceptual reasons when I was writing the script, and working with the illustrator. My personal list of references is much bigger than the one I share here because the book "Uluru" has three sequels.

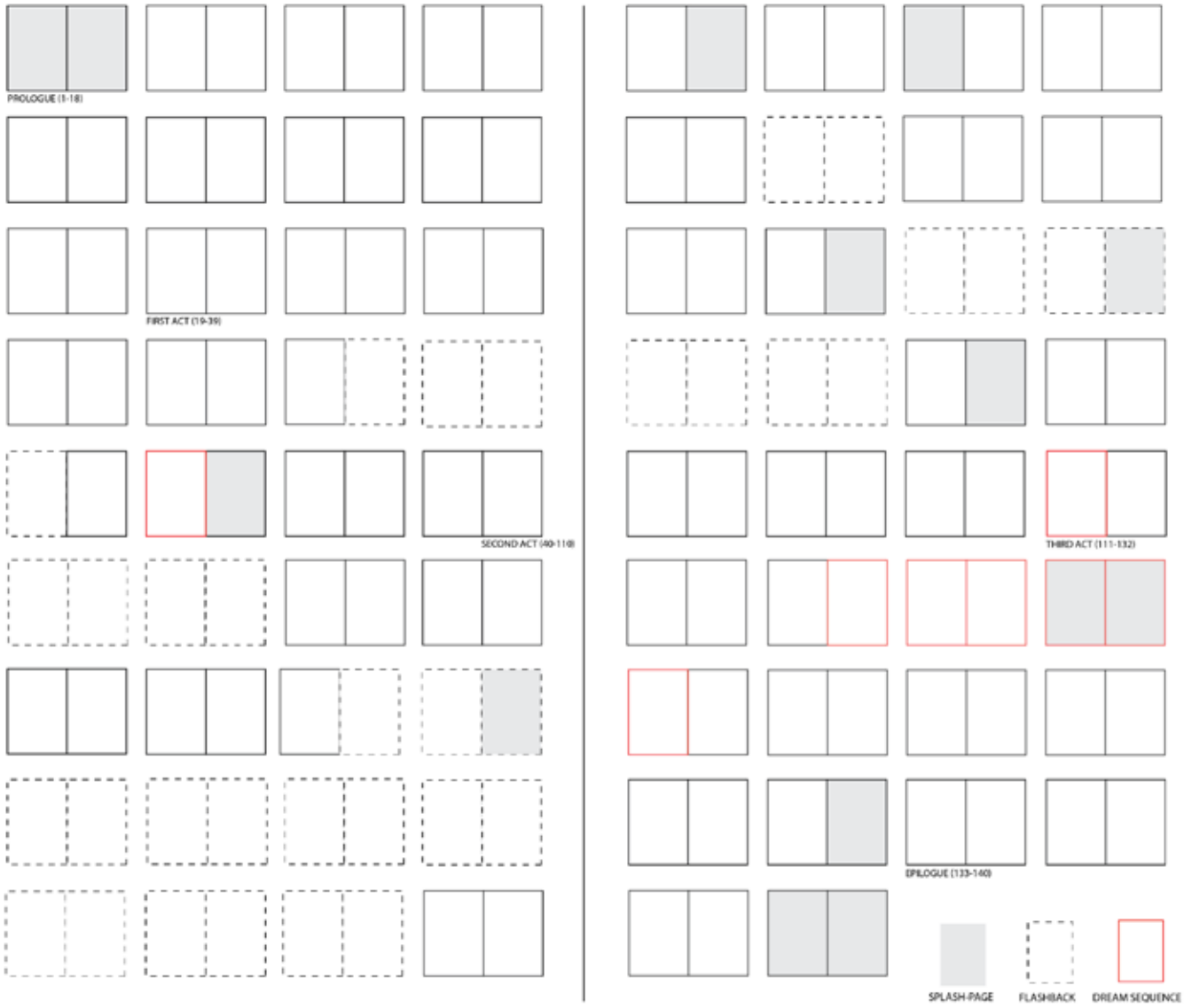
Most of the narrative – "Uluru" – takes place 200,000 years from now, in Australia. The climate has changed quite a bit and the sea levels have risen, changing the natural landscape of the continental island. As a reference, I'm using an interactive article entitled "What the World Would Look Like if All the Ice Melted" [07]. The continental drift (Australia is moving north), the passage of time, the gigantic inland sea, and the loss of the narrow coastal strip would most definitely change the flora and fauna of Australia. The map bellow was taken from the afore mentioned article, available at the National Geographic website.

To understand what kind of fauna and flora could exist in the future, it's important to know what exists now on the Australian biomes. For this, I made an inventory of images for the Production Bible where I 'studied' the common animal species, trying to decide which ones would enter the narrative. Extinction and evolution is part of the equation: which species would survive the Anthropocene Era and how would they evolve in 200,000 years. The book, "Uluru", will feature a few species: a feral pig, dingoes, kangaroos, rams, octopuses, crabs, small horses, roly-poly bugs, crocodiles, several types of birds, etc. For the flora and landscape, I suggested the illustrator a book on the matter that I find very suggestive: "Forest Trees of Australia", coordinated by M. W. McDonald.

Concept art can be more or less complex depending on the project. I guess my Ph.D. project is just the beginning of a much larger one, which includes speculative worldbuilding that is not shown

on this first tome. The complex and thrilling task of developing my transmedial imaginary world for a sci-fi franchise will continue long after I finish my thesis.

Gareth Wild, on an unfinished text [08] he partially shared online ("Visual World-Building: Developing a Conceptual Framework for Concept Design in Fantasy Role Playing Games") talks about the creation of imaginary worlds as a important component of our lives: "The earliest experience of creating and exploring imaginary worlds often occurs in childhood play. Children create their own fictional



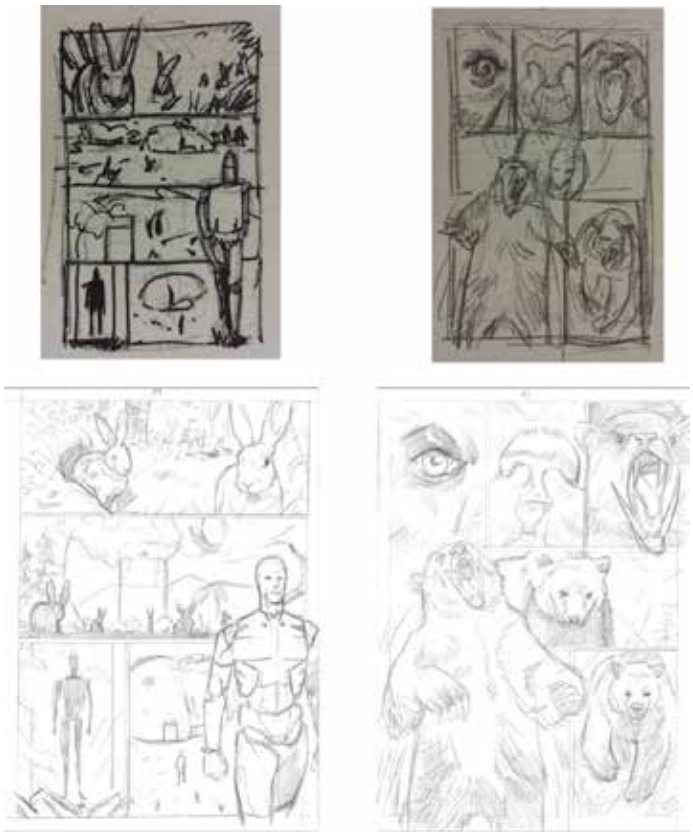
universes – labelled "paracosms" by psychologists in the field – to house their games of make-believe. This activity is often extended throughout adolescence with an engagement with toys, board games, and video games, where play is removed even further from direct experience. This engagement is frequently continued throughout adulthood, and extended with the enjoyment of novels and other interrelated media. The relationship between early childhood world-building and creative success in adulthood is well documented. Well-known authors such as C. S. Lewis are prime examples, as they not only created "paracosms" in their childhood, but also continued this activity in their adult life."

When developing the character's design it's important to understand how the subject moves and interacts with objects and other people (movements and facial expressions). The character's 'model sheet' is usually composed of several poses and expressions showing the dramatic and physical range of the character. This model sheet usually comes with a 'turnaround' scheme that shows the character from several points of view (front, three-quarters, side, and back). For the facial expressions, I think Scott McCloud's book "Making Comics: Storytelling Secrets of Comics, Manga and Graphic Novels" [09] can be a very interesting starting point. In the chapter about facial expressions (page 80), the author gives us a lot of crucial information.

Before starting with the storyboarding and page layouts I decided to understand how the 140

pages of the graphic novel "Uluru" are divided, in terms of the narrative. The following simple infographic show how I divided the story and which sections are flashbacks or dream sequences. This helped me to better understand the narrative flux I developed on the step-outline (known as 'escaleta' in Portugal). The infographic establishes which pages are flashbacks, dream-sequences, and splash-pages (one page or double-page).

I want to show, visually, the difference between the 'present', the past (flashbacks), and the dream sequences, therefore, I've decided that the lay-



out should show the reader which section he's reading. For the present, a more traditional approach with several grid types, for the flashbacks the panel gutters will be black and not the traditional white, and we will use subpanels (panels inside panels), and some of the panels will bleed out of the page. On the dream sequences, we will use crushed panels (panels without gutters, just the lines) and 'abnormal' grid templates.

It's often said that the first act and the third act should add up to 50% of the story, and the bigger second act the other 50%. With the prologue and epilogue, I managed to achieve the equilibrium people aim at when writing the script.

Prologue - 18 pages (1-18)
First Act - 21 pages (19-39)
Second Act - 71 pages (40-110)
Third Act - 22 pages (111-132)
Epilogue - 8 pages (133-140)

This number of pages will change a bit and more pages will be added during the storyboarding. Matthieu is already doing the page layouts (storyboards) in quick and small drawings (thumbnails) and a few pages had to be added to avoid over-paneling some layouts. The process of storyboarding will be as such: 1) drawing thumbnails; 2) drawing A5 sized more elaborate pages to define the final layouts; 3) digitizing to work on Photoshop on details; 4) printing the final versions in blue in A3 format paper; 5) penciling details on top of the blue lines; 6) inking the page (final art); 7) digitizing and inserting balloons and text.

I share, here, the transition from thumbnail into the A5 page sized study of the page. The more detailed A5 is not yet the final version but it serves the purpose of helping the production team to discuss the final layout these pages will have.

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My Exploratory Journey or: How I Learned to Stop Worrying and Love my Ph.D. (Part Four)

This is the fourth log entry of my 'exploratory journey'. I'm developing a practice-based Ph.D. thesis in Media Arts at the Lusophone University of Humanities and Technologies, titled "Transmedia Storytelling and Speculative Worldbuilding: Graphic Literature and Cinematographic Strategies in the Construction of a Transmedial Franchise". The main areas of my thesis are comics, speculative fiction, transmedia storytelling, and worldbuilding. In this article, I will talk about worldbuilding and its relation with myth, transmedial franchises, gamification strategies, 'play', and speculative fiction.

The founder of the Worldbuilding School [01], Nathan Smith, on his post online "World building or Worldbuilding, that is the question" [02] explained why he prefers the 'worldbuilding' term to the 'world building' expression. Like Smith, I also favor the one-word concept of 'worldbuilding' for "the art, science and hobby of creating fictional worlds". I will use the term as a concept and as a verb and I will acknowledge the figure of the 'worldbuilder', which may or may not coincide with storyteller (screenwriter, dramatist, novelist, narrative designer, etc.).

Everyone plays pretend games and create their fictional or imaginary worlds; that activity starts when we are still very young. 'Play' is one of the most important human activities and, according to the Dutch Historian Johan Huizinga, the act of playing goes beyond our immediate life necessities, and it's more than a psychological reflex or a physiological phenomenon. To Huizinga, 'play' is, above all things, fun. He defines it as a fundamental voluntary activity, executed in a certain space and timeframe, subjected to certain rules. It's a moment of tension and happiness where the player is aware of the activity, and it promotes social engagement [03].

The American scholar David Whitebread (with Marisol Basilio, Martina Kuvalja, and Mohini Verma) stated that playing is important to human development and defined five specific categories: 1) physical play; 2) play with objects; 3) symbolic play; 4) pretense or sociodramatic play; 5) games with rules. The fourth category – pretense/ sociodramatic play – is "the most prevalent type of play amongst young children", and "the most heavily researched". Children who play this way become less disruptive and more social. [04]. Amongst the psychologists, the imaginary worlds children create are labeled as 'paracosms'.

Kristin Petrella, on her paper "A Crucial Juncture: The Paracosmic Approach to the Private Worlds of Lewis Carroll and the Brontës" [05], presented five (sometimes overlapping) categories of paracosmic creation, according to previous studies: 1) "worlds based around toys and animals"; 2) worlds about "particular places and local communities" (e.g. schools and theaters); 3) worlds about "islands, countries and their peoples"; 4) worlds about systems (e.g. government and religion), documents (e.g. contracts and maps), and languages; 5) "technological or futuristic worlds". Petrella also presented the concept of 'heterocosm' and its definition: "There is a great deal of fluidity between the terms "paracosm" and "heterocosm," the main difference traditionally being the age at which the world was created. Paracosms are developed spontaneously in childhood, while a heterocosm may be created in adulthood and seems to involve more conscious effort of creation than the paracosm. I'd like to contribute to the definition of heterocosm the idea of intent to publish, and the acceptability of sharing the world with many people."

I prefer the terms of 'storyworld' and 'secondary world' (J. R. R. Tolkien) to the terms of paracosm or heterocosm but I don't see a problem in using them as synonyms, with the special attention that the last two differentiate adulthood and childhood worldbuilding. Another interesting concept, coined by J. R. R. Tolkien, is 'secondary world' (also known as 'subcreation'). The secondary world is a fictional universe that is different from the real world or the primary world. According to the Tolkien Gateway online, nowadays, "the concept is better known as conworld or fictional universe" [06]. 'Storyworlds', according to the paper "What in the World? Storyworlds, Science Fiction, and Futures Studies", are "the 'universes' within which stories are set" [07]. The act of building worlds is worldbuilding, or worldmaking (Nelson Goodman), and the fictional worlds where the stories are set are the storyworlds.

J. R. R. Tolkien also coined 'mythopoeia' which can be translated as 'myth-making'. Because the speculative genres of fantasy, horror, and science fiction have such a close relation with mythology and mythical stories this is also a very interesting concept when discussing worldbuilding. The 'new' contemporary myths can be seen, nowadays, on cinematic universes and franchises such as the MCU. For more about this I recommend the reading of my paper "The New Myths of Speculative Fiction Cinema: How Mythical Thought is Returning in the Contemporary World" [08].

When a storyworld is made for a transmedia storytelling (Henry Jenkins) project, or a transmedial

franchise, the appropriate expression is 'transmedial world' (Klastrup and Tosca). According to Henry Jenkins, who coined transmedia storytelling: "A transmedia story unfolds across multiple media platforms, with each new text making a distinctive and valuable contribution to the whole. In the ideal form of transmedia storytelling each medium does what it does best—so that a story might be introduced in a film, expanded through television, novels, and comics...Each franchise entry needs to be self-contained so you don't need to have seen the film to enjoy the game or vice versa." [09]

For Henry Jenkins, the core of transmedia storytelling is more and more connected to the art of worldbuilding, where transmedial characters and worlds are not exhausted through one single story in one single medium [10]. Building fictional universes and transmedial franchises can be started in different ways and by different venues. Star Wars and Matrix started in cinema, the MCU started with comics, Battlestar Galactica and Star Trek started on TV, The Expanse started with an RPG, "Tales From the Loop" started with illustrations, Tomb Raider and Resident Evil started on videogames, Sherlock Holmes and James Bond started in literature, etc.

Videogames have become a very important medium; some say the most important medium of our time. The Portuguese teacher André Carita did a critic rereading of Umberto Eco's 'open work' concept and affirmed that the video game is the maximum expression of 'open work'. For him, the art of video games is permeable to other forms of art and a modern reply to an ancestral need of humankind – 'play'. Carita believes that video games, as an 'open work', are the most important bridge between technology, Art, communication, culture, and innovation, as well as one of the most permeable platforms to human creativity and the flexibility of our minds [11].

The narrative immersion of many video games is directly connected to the worldbuilding (e.g "Horizon Zero Dawn"). Nevertheless, designing fictional worlds is very important for all narrative outputs, especially if the genre belongs to the speculative fiction super-genre (fantasy, horror, and science fiction), where worldbuilding is paramount. A transmedial franchise is often a kind of gamified system where the fandom works as a kind of information hunter-gatherers trying to understand the stories they love and finding the secrets behind some characters. They will often become 'prosumers' (producers + consumers) creating their own content and enriching the worldbuilding of a certain franchise (e.g. A Song of Ice and Fire, and the TV adaptation "A Game of Thrones").

Building a new world takes time and dedication. There are many tutorials and websites where each worldbuilder can find the needed information. I will mention a few that I find helpful. The American writer Patricia C. Wrede has made available a questionnaire online, at the Science Fiction & Fantasy Writers of America website, titled "Fantasy Worldbuilding Questions" [12]. According to her, the list of questions is to be seen as a thought-provoking tool: "The following list of questions is meant to aid authors of fantasy fiction who are seeking to create believable imaginary settings for their stories. While many of these questions may be helpful or crucial to certain stories, they will not all apply to every story. It is not necessary for an author to answer all, or even any, of the questions in order to start writing, (or to finish writing, either). The idea is simply to provoke people into thinking about the ways their settings and backgrounds hang together ... or don't."

I won't lay out all the questions Wrede addresses, but I will present the main topics she uses to frame her questions: 1) the world; 2) physical and historical features; 3) magic and magicians; 4) peoples and customs; 5) social organization; 6) commerce, trade, and public life; 7) daily life.

On the historical features about a fictional world, the Youtube Channel Hello Future Me has a very interesting video titled "On Worldbuilding: Fictional Histories" [13]. The presenter, Tim Hickson, recommends a worldbuilding software/ website called World Anvil [14], and an eight-step flowchart (image below) to design the history of a fictional world. The eight steps are: 1) identify what interests you; 2) think of your history through six different lenses (culture, economics, politics, religion, technology, and geography); 3) identify geographical variances of the same events in your story; 4) every major event in the narrative should have several causes and consequences according to different lenses; 5) define how the historical records are changed through time; 6) identify who records the history and how biases they are; 7) how long has been since the main event and when did people started recording it; 8) identify myths and legends about the major event and how they influence the characters of your story according to their geographical origin.

On the website Redsyblog there is a very interesting post entitled "Worldbuilding: the Master Guide (with Template)" [15]. The contents of the post are very helpful in the creation of a fictional world. As the title says, a template is offered and it

contains the following areas for the worldbuilder to think and write about when building a fictional world: 1) basics; 2) geography (natural world, locations of significance, weather); 3) people (races & species, languages, social frameworks); 4) civilization (history, culture, religion, leisure, education); 5) technology, magic & weapons (magic systems, technology, weaponry); 6) economy (trade & commerce, transportation, business); 7) politics (government, law). At the end of the post, there are a few resources about worldbuilding: "Wonderbook: The Illustrated Guide to Creating Imaginative Fiction" by Jeff Vandermeer; "Writing Fantasy & Science Fiction" by Lisa Tuttle; "The Tough Guide to Fantasyland" by Diana Wynne Jones.

Because stories need characters, Reedsyblog has a post on that subject – "Character Development: How to Write Characters Your Readers Won't Forget" [16] (it's linked to the above-mentioned post). On this post they share a list of things you need to think about when writing a good character (I transcribed the list): 1) justify the character's reason for existence by establishing the character's story goal and motivation; 2) make sure the character has both strengths and flaws; 3) give the character an external and internal conflict; 4) decide whether the character is static or dynamic; 5) give the character a backstory; 6) develop the character's external characteristics to make them distinguishable; 7) make the character stand out with distinctive mannerisms; 8) do your research to make the character believable; 9) steer clear the biggest character development mistake. They also make available a template entitled "How to Create a Character Profile", divided into three parts (the outer layer, the flesh, the core), containing the following areas: 1) the basics; 2) physical appearance; 3) speech and communication; 4) the past; 5) family; 6) external relationships; 7) psychology; 8) the present and future.

The more you flesh out your world the more it will be unique and the easier it will be to write your story. Worldbuilding and story structures, such as the monomyth, are powerful tools for writing a story but they cannot disguise a bad narrative and copycat inferior projects. The writer must tell the stories he thinks are right even if it's not what the industry is looking for. George R. R. Martin went back to literature after ten years in Hollywood because he wanted to write what he enjoyed without the restrictions of producers. The narrative and worldbuilding quality he impressed into his work allowed him to be the zeitgeist in terms of fantasy literature and TV series. Most people (the market) don't know what they want until they see it being done right. Having said that, it's also import-

ant to know the market and understand what the public is craving for. Studying the competition is important in any kind of business, even artistic ones.

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My Exploratory Journey or: How I Learned to Stop Worrying and Love my Ph.D. (Part Five)

This is the fifth log entry of my 'exploratory journey'. I'm developing a practice-based Ph.D. thesis in Media Arts titled "Transmedia Storytelling and Speculative Worldbuilding: Graphic Literature and Cinematographic Strategies in the Construction of a Transmedial Franchise". The main areas of my thesis are Comics, Speculative Fiction, Transmedia Storytelling, and Worldbuilding. On this article I will address ballooning and subtitling in comics; I will do this task in the graphic novel I'm producing with Matthieu Pereira for the thesis, therefore I need to understand everything there is to know about the subject in order to achieve the best results I can (my background in communication design will be helpful).

Comics lettering can be done as one wishes, I guess, but if you want to do it the 'professional' way there are a few mistakes that must be avoided. Jason Thibault has a very interesting resource page online [01] that tackles several issues. I will start with an infographic titled "5 Amateur Lettering Mistakes", designed by Nate Piekos. The mistakes to be avoided are as follow: 1) we use the crossbar letter 'I' only for the pronoun 'I', never use it in the middle of other words because it takes too much space; 2) "text should be staked to comfortably fit inside a balloon shape"; 3) the space between lines of text should be tight but not as for the text to overlap; 4) do not coincide the limits of the balloons with the panel

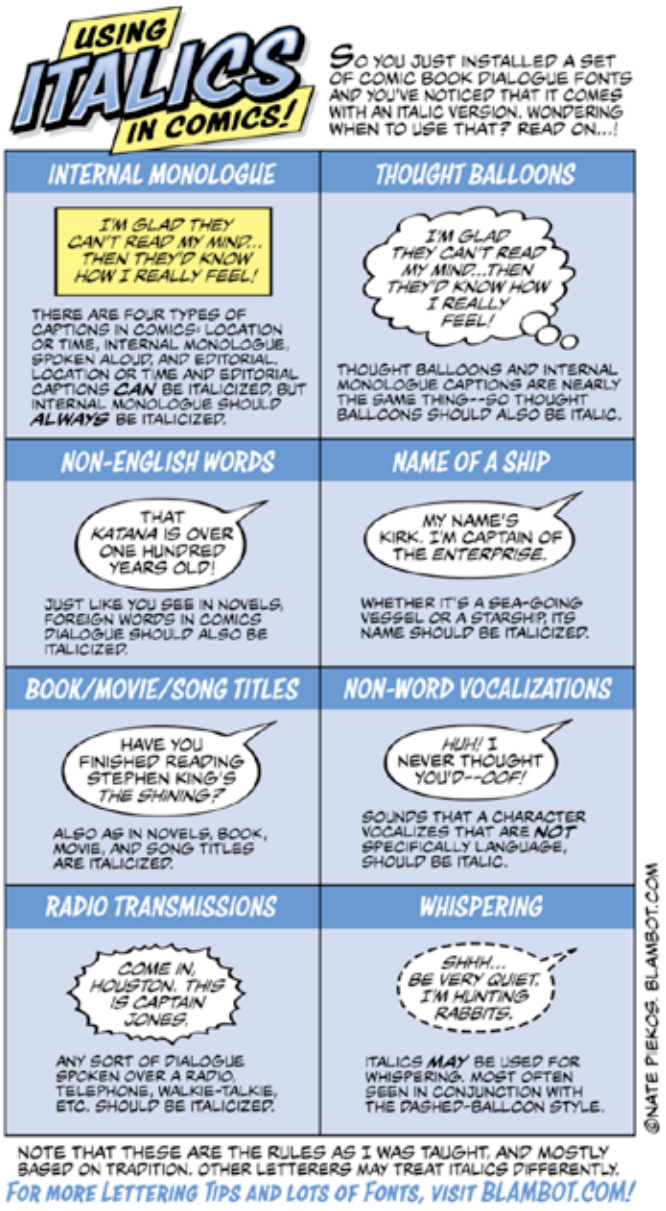
borders; 5) the tails of the balloons should not be too wide (they should be consistent).

Nate Piekos created another image, titled "5 More Amateur Lettering Mistakes", that shows more mistakes that should be avoided: 6) don't cross the balloon tails; 7) when cutting a balloon at the panel border don't cut it at its widest point; 8) tails should emanate from the center of the balloon; 9) tails should point at the character's mouth; 10) try to cover the art with balloons as less as possible.

Nate Piekos also explains how and when we can use the italic version of a comic's typeface when subtitling: 1) always italicize internal monologue; 2) always italicize thought balloons; 3) always italicize foreign words; 4) always italicize names of ships; 5) always italicize titles; 6) always italicize vocalizations; 7) always italicize radio transmissions; 8) italicized lettering may be used on whispering balloons.

For some more good advice, the website of Blambot has a 'resources' link for several pages. I recommend reading two: "Comic Book Grammar & Tradition" [02] and "Lettering Tips" [03]. The images below were taken from the first resource and are but for a few of what is available on the website, organized by Nate Piekos. Blambot sells typefaces but they also make logos and custom fonts.

The lettering should be staked in harmonious ways but the layout of the text and the balloon has some good and bad ways to be done. Chris Oatley had (can't find it anymore) a tutorial online with two pieces of advice: 1) fit the text into the balloons in a



DOUBLE DASH
There is no Em or En dash in American comics. It's a double dash and it's only used when a character's speech is interrupted, or in place of a semi-colon; which is not used in comics. (Em or En dashes are occasionally seen in UK comics lettering.) The double dash and the ellipsis are *not* interchangeable, even though many writers use them interchangeably. For the record, there are only TWO dashes in a double dash. It sounds like common sense, but you'd be surprised.

DOUBLE OUTLINE BALLOONS
Double outline balloons serve the same purpose as a burst balloon, to add emphasis to dialogue. The tail of a double outline balloon can connect to either the inner or outer balloon and the background balloon usually sports a color fill or a heavier stroke. Variations are numerous and up to the letterer.

ELLIPSES
The ellipsis is used when a character's speech trails off. If a character is speaking, trails off, and then resumes in another balloon, you should always end the first dialogue with an ellipsis and then begin the second dialogue with an ellipsis. Another allowable use is when a character's speech trails in and out, or they pause due to physical distress. Injured characters or those soon-to-be unconscious often make good use of this in wavy balloons. There are only THREE periods in an ellipsis. Again, you'd be surprised how often you see four or more.

FOREIGN LANGUAGES
When a character speaks in a foreign language, each block of dialogue is begun with a "less than" symbol and ended with a "greater than" symbol. Often, the first appearance of the language will also end with an asterisk to denote an Editorial Caption that explains the language from which it is being translated.

JOINING BALLOON-TO-BALLOON

Balloons directly joined together are generally of the same thought process. Two or more expressions that are of the same topic should be executed this way. This rule is most often broken when space constraints don't permit it and you have to use a connector.

JOINING BALLOONS WITH CONNECTORS

There are two instances where this is used. The first is when a character says two separate ideas expressed one after the other. The second instance is when two characters are speaking in a panel and the conversation goes back and forth between them. Their balloons will be staggered and joined with connectors. This rule is most often broken when space constraints don't permit it and you have to join the balloons directly.

NUMBERS

Numbers in dialogue should be spelled out unless they're a date, designation, part of a name or a large number. A good rule of thumb is that any number over twenty can be numeric.

OFF-PANEL DIALOGUE

When a character speaks from "off-camera", the tail of the balloon generally butts against the panel border. Some editors prefer to simply have a tailless balloon. These balloon tails can be a plain arc shape, or an S-shape.

WAVY BALLOONS

Generaly used when a character is in physical distress. Dialogue is usually stilted and broken by ellipses and the balloon and tail are shaky. As a character descends into death or unconsciousness, their dialogue may get smaller and smaller and end with a double set of breath marks.

WHISPERING

Traditionally, whispered dialogue is indicated by a balloon with a dashed stroke. More recently accepted options are, a balloon and dialogue in a muted tone (grayed-out), **lowercase** text, or as small dialogue/big balloon. Italics are a possibility as well.

Special thanks to Todd Klein, Clem Robins, Scott Allie, and Jason Arthur for their time and contributions.

football or diamond shape; 2) Keep important words or phrases together, it will help emphasize them.

Dividing a long line of dialogue is essential when the phrase is long. Joining balloons with connectors or just overlapping them is graphically interesting and it helps the reader. Drawing the balloons (and tails) can be a challenge and some artists enjoy diversity to make sure the reader knows who is talking and if that character is whispering or shouting or if it has a menacing voice. The lettering can be very important for these nuances in dialogue as well. Placing the balloons on the page is a designer's work. The readability from one panel to the other needs to be tight and the page layout must not be harmed. The weight of the balloons on the page and how they interact with the illustrations must be carefully designed.

Because the Portuguese language has specific typographic characters (e.g. ç) and accents (e.g. â, ã, à, á) it's important to find a good typeface that allows using those without constraints. Below, I share an image I found on Facebook, a list of typefaces available for Portuguese authors. I'm also making available a list of typefaces that some comic artists mentioned on the Facebook post that are not on the image below: CC Astro City, J. Scott Campbell, CC Wild Words.

For a better understanding of comics lettering and the history of the comics fonts, there are two videos that can be watched: "Where the 'Comic Book font' Came From", by Vox [04], and "The History and Techniques of Comic Book Lettering", by ComicTropes [05].

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My Exploratory Journey or: How I Learned to Stop Worrying and Love my Ph.D. (Part Six)

This is the sixth log entry of my 'exploratory journey'. I'm developing a practice-based Ph.D. thesis in Media Arts entitled "Transmedia Storytelling and Speculative Worldbuilding: Graphic Literature and Cinematographic Strategies in the Construction of a Transmedial Franchise". Part of the practice-based component of the thesis is the production, promotion, and distribution of a speculative fiction graphic novel entitled "Uluru" (the first step to a potential transmedial franchise).

This article is about the spec script I wrote and how to 'sell' it. It's also about where I can publish the graphic novel online, and through a publishing house. The icing on the cake would be the adaptation of the script (or the graphic novel) to an audiovisual medium. For that, I need to send the script to contests and producers.

There are several types of scripts (e.g. scriptment, shooting script [01], camera script, etc.). The spec (abbreviation for speculative) script is usually an unsolicited original script written by new writers, aimed at finding a producer interested in buying the story. The spec script differs from a shooting script mainly on the title page and on the scene numbering (the spec script has no scene numbers). For a better grasp of the differences, the YouTube video "Film Shooting script vs. Spec Script - screenplay format" [02], by Word Dancer, is a good place to start. I would like to mention a book (I still haven't bought it) that I think could be a good reading: "The Hollywood Standard, 2nd Edition: The Complete and Authoritative Guide to Script Format and Style", by Christopher Riley.

When Netflix and the Portuguese Institute of Cinema and Audiovisual [04] announced a contest for TV series and documentaries I knew I had to participate. The script "Uluru" was sent to the Portuguese script doctor João Nunes [03], which allowed me to change and improve parts of the story that were not so solid and my scriptwriting technique. Because the graphic novel I am producing for my thesis is just the first of three books I had to adapt the entire life story of Uluru into a TV series, despite only having the first part scripted (they only wanted a 'pilot' and a description of the rest of the episodes). The spec script "Uluru" was divided in two and sent to the contest as the first two episodes of a six-part season. 1200 projects were evaluated and the results came out on August 10, 2020. This contest helped me think about the next two graphic novels, the

second and third parts of the story about Uluru that coincide with the second monomyth (narrative arch) of the main character.

I found out that Netflix was promoting another contest, this time with Imagine Impact [05], and for feature films. I decided to translate my script to English and make it bigger (75 pages). The previous number of pages of the Portuguese version was not adequate for a feature film in the USA (it still is a bit short). This allowed me to perfect some scenes and actions and tell a better story (I hope). The contest is divided into five specific dates (five contests actually). The first (June) was for 'large scale action-adventure films for all audiences', the second (August) for 'lifestyle movies with a competition element'. I'm hoping there will be a contest for the speculative fiction super genre (fantasy, horror, science fiction), allowing me to send the "Uluru" spec script.

I guess the best way to learn how to write good scripts is by watching a lot of movies and reading lots of scripts. The Writers Guild of America West website has a "101 Greatest Screenplays" [06] list where we can find some of the best scripts ever written (voted by professional film and television writers in 2005). To download and read the scripts online there are several websites that can be used [07]. I have been reading a few, but I should be reading more with similar characteristics to my type of story. "I Am Mother" was a very interesting read, not only because of thematic reasons but also because of the small number of cast members. "Uluru" has five characters, not including the domesticated kangaroo.

There is a Portuguese script contest that I am very interested in participating in. It's called Guiões – Festival do Roteiro de Língua Portuguesa [08]. This script contest is exclusively for Portuguese-speaking countries and they will be receiving stories this year for the seventh edition in 2021. The contest has not yet announced a call for scripts because of Covid-19 but I think they will before the end of this year. I took some of the things I included in the English spec script and translated it back to Portuguese; this way I was able to increase the number of pages of the Portuguese version of "Uluru" (55 pages now). The minimum number of pages for a feature film for the Portuguese script contest is 50.

Still on contests: the YouTube video "How to sell your screenplay - how to market a screenplay to Hollywood through contests, pitching etc" [09], gives us good information on that subject. The host of the channel shares several examples on the video description of what she considers to be the best script contests: Nicholl Fellowship, Austin Film Festival Competition, Tracking B, Page Awards, Final Draft Big Break, Sundance Screenwriters' Lab, BlueCat, Slamdance, Emerging Screenwriters, Script Pipeline. She also shares, on the video description, where to find all sorts of information about scriptwriting contests – Movie Bytes [10] – and a contest specifically for the horror genre – Stage 32 Bloodlist Screenplay Competition [11]. Besides the contests, she mentions script listing services where people can upload their scripts to be optioned: Black List [12] and Spec Scout [13].

On another video by Word Dancer, titled "How to Write a Screenplay - scriptwriting for beginners" [14], the host mentions a peer review script swap at the Zoetrope website [15]. For every four scripts we review, we are allowed to upload one to be read and reviewed. This free beta reading space is divided into several types of texts, including short scripts and long scripts. This looks like a good way to have free advice and learn through reviewing other people's scripts.

About the graphic novel adaptation of the script: I must say that I am still deciding where I will publish it online. Before printing the book I want to share the story for free on a webcomics platform (or a blog) and use social media to promote it. I have found a few platforms online that seem interesting for what I want to do. I left Webtoon out of my list because the website needs the artist to adapt the comic's layout to their vertical digital page. I'm still thinking about the best strategy to upload and distribute my story but I have a handful of alternatives: Tapas, Hiveworks, Comic Fury, The Duck Webcomics, Patreon, Reddit, Imgur, Instagram, Tumblr, Facebook, Twitter.

The platform Hiveworks seems very interesting. They are a webcomics platform online where you can read the stories for free but they also print the books to sell.

Because I want a print version of the book, I'm thinking of doing a crowdfunding campaign after I finish publishing "Uluru" online for free. But before I do that I will try two alternatives: Image Comics and Dark Horse. Both publishing houses have a page on their websites dedicated to submissions.

Image Comics is known for its creator's ownership policy and for some of the best sci-fi comics produced nowadays. Submissions must be sento to the mail submissions@imagecomics.com with the following items: cover letter, synopsis, a few pages, and the cover. The Dark Horse allows people to submit stories or series proposals [16]. On the sub-

mission page, we can find the submission agreement and the items that have to be sent: logline, synopsis, complete outline, six consecutive pages of art for your story. The proposals have to be sent to dhsubsproposals@darkhorse.com (under fifteen megabytes in size).

Sending proposals both to Image Comics and Dark Horse doesn't mean the work will be accepted. They receive lots of proposals per year and their standards are very high. On the other hand, I have seen some people producing their webcomics online and their success is what allows them to publish their story with the support of a publishing house. The example of "Killing Six Billion Demons" confirms my argument. The artist started online and had a big success with his story, now he's being published by Image Comics (three books so far) and his story is still online, for free. If people enjoy the storyworld they will want a printed version of the narrative.

In Portugal, we are still behind on webcomics. We have a few examples of course [17] but no real attempt at what some artists are making abroad. I hope "Uluru" could serve as a national example on the possibilities of online publishing to a broader audience (the story will be published in English, French, Mandarin, and Portuguese). If this experience works it could open some doors for future stories I want to tell in the expansive storyworld I have been worldbuilding for the last few years. As some comics artists say, finishing your first work is the most important thing. Then you are part of the 'doers' and not the 'sayers'. "Uluru" will be my visit card and a possible beginning to a Portuguese transmedial franchise.

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[08] https://guioes.com
[09] https://youtu.be/mUKVZiyPeyg
[10] www.moviebytes.com
[11] www.stage32.com
[12] https://blcklst.com
[13] www.specscout.com
[14] https://youtu.be/4hepINkxIkc
[15] www.zoetrope.com
[16] www.darkhorse.com/Company/Submissions
[17] https://bandasdesenhadas.com/bdonline

My Exploratory Journey or: How I Learned to Stop Worrying and Love my Ph.D. (Part Seven)

This is the seventh log entry of my 'exploratory journey'. I'm developing a practice-based Ph.D. thesis in Media Arts titled "Transmedia Storytelling and Speculative Worldbuilding: Graphic Literature and Cinematographic Strategies in the Construction of a Transmedial Franchise". In this article, I will talk about the new ideas I had for my speculative fiction transmedial franchise, but first things first: the overall storyworld I'm creating will be named 'Chronicles of Time and Space'. This is a change from the title I had when I was developing this project for my master's degree in Cinematic Studies.

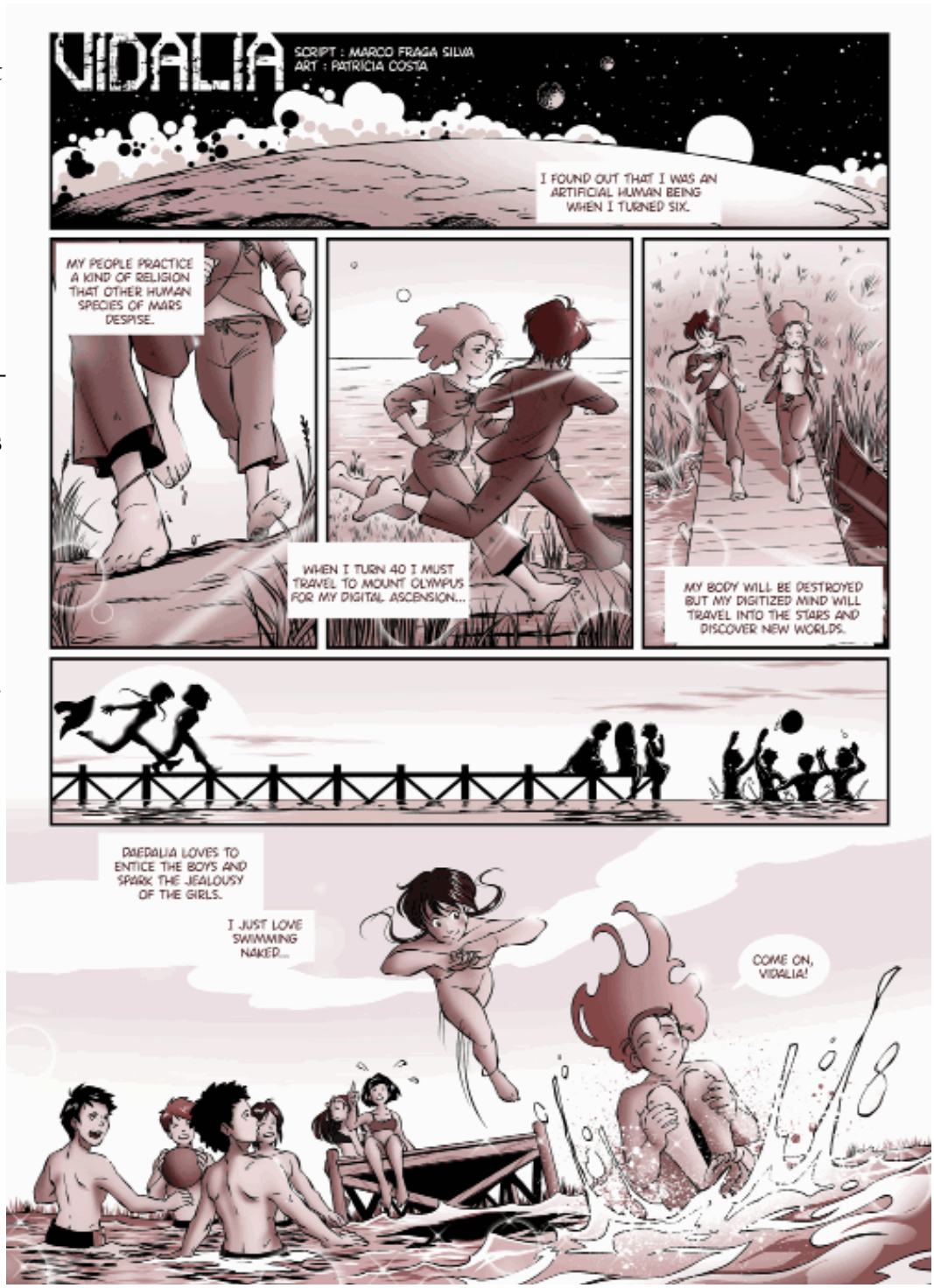
An entertainment transmedial franchise is nothing without a good storyworld and a fan base. I'm still in the phase of creating the best stories I can within the storyworld I'm building. Until recently my main focus was on the first monomyth of Uluru, a young 2.0 human being raised by two intelligent machines in the center of Australia. The first dramatic arch of Uluru will be made available next year online for free (webcomics). Because I decided to participate in the Netflix contest for Portuguese TV series in June this year, I invested some time in writing about the second monomyth of Uluru. This second story arch will result in the next two graphic novels, to be published after the first one next year.

Last month of August, I was the chosen scriptwriter for the 'Projecto ACBD' [01], an Instagram project where a person writes a short story and a few artists illustrate the script (a sort of Portuguese Art Cred initiative). For the one-page short story, I decided to explore the Martian section of my storyworld. I enjoyed the idea so much, I decided I would invest more time in building the narrative about the new character: Vidalia. Right now I'm developing the step-outline for the new story. Below, I share one of the pages sent to the 'Projecto ACBD', illustrated by the Portuguese artist Patrícia Costa.

I've read, on the Producers Guild of America website, that a "Transmedia Narrative project or franchise must consist of three (or more) narrative storylines existing within the same fictional universe (...)" [02], therefore, I decided to abandon the Production Bible for "Uluru" and create a Transmedia Bible for the franchise, where I include "Uluru" and two other narratives: "Vidalia" and "Dragon Head". I'll be dedicating an article to these narratives and the Transmedia Bible next year. For a better exploration of my storyworld and the transmedial outputs for my future low budget franchise, I believe it is necessary

to explore these three stories.

The Transmedial Bible will come in handy when contacting Portuguese animation producers. This should be done after the publishing of the "Uluru" comic book online is concluded and I start preparing the crowdfunding campaign for the printed version. The Transmedia Bible I'm writing now is based on the production document I sent to the Netflix contest; therefore the format I'll be pursuing is the TV series format. The Netflix contest didn't accept animation, but I believe that is the adequate medium for the stories I'm writing. My goal with the Transmedial Bible is the creation of an anthological animated TV series where I will tell three stories in three seasons. The first season, 'Chronicles of Time and Space – Uluru', is set 200.000 years in the future where we learn about a project to reintroduce the human species on planet Earth. The second season, 'Chronicles of Time and Space – Dragon Head', is set 500 years after the first season. The third season, 'Chronicles of Time and Space – Vidalia', is a prequel and it begins when the first settlers arrive on Mars, in 2033.



References

[01] www.instagram.com/projectoacbd
[02] www.producersguild.org/page/coc_nm/Code-of-Credits---New-Media.htm

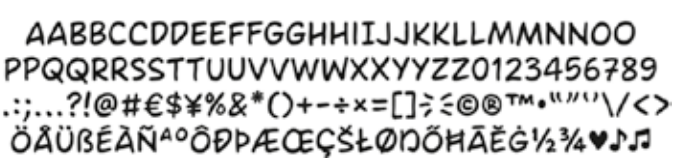
My Exploratory Journey or: How I Learned to Stop Worrying and Love my Ph.D. (Part Eight)

This is the eight log entry of my 'exploratory journey'. I'm developing a practice-based Ph.D. thesis in Media Arts titled "Transmedia Storytelling and Speculative Worldbuilding: Graphic Literature and Cinematographic Strategies in the Construction of a Transmedial Franchise". The practical component of my thesis relies on the publication of a graphic novel, and all that entails. Hopefully, the story "Uluru" will launch a Portuguese sci-fi transmedial franchise named 'Chronicles of Time and Space'. In this article I will delve deeper into the strategy I'm thinking of implementing to producing and promoting the "Uluru" story: designing a website; ballooning and lettering the pages of the comic; thinking about the publishing online phase and creating a fan-base; crowdfunding; and doing a list of Portuguese comic stores where the printed version of the book could be purchased.

Right now I'm designing a simple website on Wix that will serve as a hub for all things regarding the project. A user-friendly and appealing interface is my main focus. The website is divided into seven areas: the Home area where you can read the logline of the story in four languages, four areas dedicated to the languages the webcomic will be available for reading (Portuguese, English, French, and Mandarin), the About area will have information about the project and the main narratives ("Uluru", "Vidalia", and "Dragon Head"), the Making Of area will have access to the articles I'm writing to The Portuguese Portal of Fantasy and Science Fiction and a few sketches and drawings. At the bottom of the website, there will be links for social media and other platforms (Instagram, Facebook, Twitter, Patreon, and YouTube) where the weekly pages of "Uluru" will be published. According to my latest calendar, I will start publishing six pages per week on September 1, 2021, and finish the story in February of 2022.

I'm focused on the first narrative arch of Uluru's trilogy, but a few months ago I had the opportunity of writing a one-page story for a Portuguese Art Cred project [01] and I decided to use the storyworld of 'Chronicles of Time and Space'. The short story "Vidalia", drawn by Patrícia Costa, is a small presentation of the eponymous female protagonist. I'm working on a script for the graphic novel to be illustrated after I finish "Uluru".

I'm also ballooning and lettering the "Uluru" pages Mathieu Pereira is sending me. This is a difficult and meticulous task and I need good references, therefore, and because 'everybody' says one should imitate the great masters, I decided to keep a close eye on how Rus Wooton [02] does his job on "East of West". For the typographic font, I chose Ames, a freeware comic book lettering font for independent comics creation and non-profit use only. Because I'm thinking of self-publishing online this is a good font for now. If I decide to purchase the commercial version, the cost is around 20 euros (adding bold and italic to the fold). A good advantage of using this lettering font is that it has European characters and diacritical marks, or accents [03].



I'm also thinking of publishing "Uluru" on Patreon and on a webcomic publishing platform. Webtoon and Hiveworks seem interesting enough but I'm inclined to choose Tapas [04]. It's a user-friendly platform with a large community of readers. The website has a mobile app which is a plus.

Creating a fan-base will be very important during the phase of weekly publishing online in several languages. Building a mailing list and contacting people over social media will be a way of reaching out. Sharing the story in specialized Facebook pages and groups will be an important part of the strategy of creating a readership for "Uluru", although, I've read creators are not very happy with Facebook when it comes to publishing webcomics, and prefer Instagram. I guess I'll find out in the process. According to some, Twitter is good for publishing and promoting the work if you gather enough followers.

In the YouTube video "How to Build Your Audience (From 0 to 10,000 Followers)" [05], by Dan Ekis, he says people should choose the right platforms (where there are a 'lot of eye-balls') and interview other creators for advice. For a YouTube channel, he says it's important the title of the video and the thumbnail you choose. I will have a YouTube channel for the project where I'm thinking of having several audiovisual contents (booktrailer, interviews, timelapse videos of the artwork, making of excerpts, etc.). YouTube is a very important search engine for so many people that it makes it an essential tool.

Writing articles and making interviews during the online publishing phase will be important as well. The 'Conversas H-alt' podcast [06] and other national podcasts will be contacted, as well as inter-

national comics and webcomics podcasts, and YouTube channels dedicated to pop culture and comics. I'll have to create a list of people I enjoy listening to and watching their videos and video-essays.

The crowdfunding phase will take around 30 days. Kickstarter allows a 60-day period but they recommend 30 days or less (short and sweet). They also allow the campaign to be seen before it's launched: the project will be available on the Upcoming Projects section. Promoting the crowdfunding campaign in the prelaunch phase is very important because it allows people to know more about the project and fund it in the 30-day timeframe. The article "Your Kickstarter Campaign — Three Prelaunch Stages to Never Overlook" [07], published on Floship, shares a few tips for a successful prelaunch crowdfunding campaign: 1) Crowdfunding Research; 2) Crowdfunding Outreach; 3) Community Building; 4) Logistic Planning for Success.

In the first stage – Crowdfunding Research – it's important to research similar campaigns and understand what worked and what failed. In the second stage, it's important to network and contact influencers (tools: JustReachOut, NinjaOutreach, Buzzsumo, BuzzStream, Upfluence, Pitchbox, Famebit). In stage three it's important to create a fan-base or a group of people who are interested in the project (app for prelaunch attention: Pitchfuse). In stage four it's important to think about the delivery of the product because many backers could live outside the country of the campaigners (Floship offers a custom fulfillment evaluation plan).

The article "Hacking Indiegogo's GogoFactor" [08] gives us good tips for the Indiegogo crowdfunding platform (they can be used on other funding websites): 1) customized project's URL; 2) campaign updates every five days (minimum); 3) the campaigners' social network, friends, and family should contribute with around 25% of the fundraising goal; 4) constant outreach through emails, tweets, posts, interviews, and articles (every day); 5) encourage people to leave comments on the campaign page. I guess that if a campaigner maintains an effort to reach as many people as possible the chances of being funded grow exponentially.

If Uluru's campaign is successful, the English version of the story will be printed and sent to the crowdfunding participants. The excess books that are printed will be made available for purchase in comics festivals, and in some specific stores in Portugal. The funds from the eventual sales will be invested in the second narrative arch of Uluru, a more complex story, and the second book of a planned trilogy.

Before finishing this article I find it pertinent to share a few specialized Portuguese comic stores where it's possible to find national and international authors: BD Mania [09]; Casa da BD [10]; Dr. Kartoon [11]; Gateway City Comics [12]; Kingpin Books [13]; Kult Games [14]; Livraria Sétima Dimensão [15]; Mundo Fantasma [16]; Tinta Nos Nervos [17]. The online store Convergência [18] is a very interesting project because most comics' editors are represented here. If you want to help Portuguese artists and editors visit the page and purchased Portuguese graphic literature.

References

[01] www.instagram.com/projectoacbd
[02] www.pipelinecomics.com/the-evolution-of-the-letterer
[03] https://purastik.net/ames/e.html
[04] https://tapas.io
[05] https://youtu.be/PPhpSNq2HSU
[06] https://h-alt.weebly.com/podcasts.html
[07] www.floship.com/kickstarter-prelaunch-planning
[08] www.crowdcrux.com/hacking-indiegogos-gogofactor
[09] www.bdmania.pt
[10] www.facebook.com/CasaDaBd
[11] www.drkartoon.com
[12] www.facebook.com/gatewaycitycomics
[13] https://kbportugal.pt
[14] www.kultgames.pt
[15] http://setimadimensao.com
[16] www.mundofantasma.com
[17] https://tintanosnervos.com
[18] https://convergencia.com.pt

My Exploratory Journey or: How I Learned to Stop Worrying and Love my Ph.D. (Part Nine)

This is the ninth log entry of my 'exploratory journey'. I'm developing a practice-based Ph.D. thesis in Media Arts titled "Transmedia Storytelling and Speculative Worldbuilding: Graphic Literature and Cinematographic Strategies in the Construction of a Transmedial Franchise". I've recently changed my research question to one that better reflects my goal: what are the appropriate strategies to develop a transmedia model based on a speculative fiction storyworld?

I'm working with a small team on a graphic novel that will be a kind of calling card for the storyworld I've built, and spearhead my strategy to launch a Portuguese transmedial franchise. As part of my strategy, I will create a transmedia bible to present the project to animation studios after I publish the graphic novel online; the webcomic will debut in December and the last pages will be published four or five months later, in 2022.

For a better understanding of what the big companies are looking for, I've participated in two contests that helped me to better understand my project and how to present it. In August 2020, I sent my project to a contest organized by the Portuguese Institute of Cinema and Audiovisual, and Netflix. In March 2021, to a contest organized by Skydance Television, and Imagine Impact. The main goal of participating in these contests was to improve my project and prepare myself for launching a transmedial franchise after publishing the three main stories I've created for the Chronicles of Time and Space storyworld: "Uluru", "Vidalia", and "Dragon Head".

For the Netflix contest, I tried dividing the "Uluru" trilogy into a six-part miniseries with the possibility of having a second season with the "Dragon Head" narrative arch. The spec script I wrote was divided into two parts: the pilot episode and the second episode. The six episodes would be thirty minutes long, exploring themes such as technology and authority. On the declaration of intentions, I mentioned a few references for my approach to the relationship between people and technology (focus on AI) and authority (focus on biopolitics): "Her" (2013), "Ex Machina" (2014), "Westworld" (2016), "The Handmaid's Tale" (2017), "Altered Carbon" (2018), "I am Mother" (2019), "Devs" (2020). I also mentioned that the "Uluru" narrative is a coming-of-age story and part of the post-post-apocalyptic genre, which contains stories such as the novel "A Canticle For Leibowitz" (1959), the comic "Nausicaä of the Valley of the Wind" (1982-1994), the videogame "Horizon Zero Dawn" (2017), and the TV series "See" (2019). In the description of the main narrative lines, I mentioned a few subthemes such as identity, free will, determinism, and what it means to be human; I also made a description of each episode, which was extremely helpful for the production of my comics' trilogy. I have now a better grasp of what I want to tell with my story and how to achieve it.

For the Skyline Television contest, I created a three seasons sci-fi anthological TV series titled "Chronicles of Time and Space". When summarizing the project, I explained that the "Chronicles of Time and Space" is an anthology TV series with three seasons in the same storyworld, therefore connected. The first season is about the coming of age of a young 2.0 human called Uluru; he is born 200,000 years in future Australia and is part of a project to reintroduce humankind on Earth. The second season takes place 500 years after Uluru is born and takes place in Africa, in the Empire of Petra. The third season is a prequel and takes place on terraformed Mars; in this last season there's more information about the project of reintroducing human beings on planet Earth (the arks), and how Mars reacts to the blackout and lack of communication with planet Earth in 2156 CE.

The first season is the adaptation of Uluru's two monomyths (the same structure I created for the Netflix contest but with longer episodes). The second season would be Bia's narrative arch, the narrative I'm currently calling "Dragon Head". The logline for this season is as follows: a privateers' daughter of the empire of Petra accepts the task of traveling to the other side of the world in search of a lost underground city populated by immortal beings trapped in a virtual world. The third season would be about Vidalia's narrative arch. The logline I sent to this contest says the following: when a young post-human Martian woman discovers that Mars is not the birthplace of humankind she loses her religious beliefs and starts trying to share that information endangering her life at the hands of aggressive zealots.

For this contest, I focused on the main characters of my anthological TV series that live in the storyworld I'm developing. On the section about the characters, for the question 'What is unique about your characters and why do you think audiences will emotionally invest in their journeys?', I tried to explain in a succinct way why my characters are special: the artificial sentient entities in my story are copies of human minds (mind upload) and they consider themselves part of the human species. The protagonist Uluru is divided between his dependence

on the machines and a simpler less high-tech kind of life. This story will tackle contemporary issues such as technology, power, othering, humanity, etc. The protagonist Bia had a difficult upbringing and she has a cynical vision of the world, but she will end being a very important element for the future of humanity. The protagonist Vidalia is a victim of her upbringing and tribal beliefs but she will emancipate herself from corrupt leaders and misinformation.

There was a section dedicated to which director and star I would like to work with. I chose Denis Villeneuve because I loved "Blade Runner 2049", and I chose the upcoming star Alba Baptista because she's Portuguese. The thematic focus of this contest was 'Grounded, Elevated Sci-Fi', therefore they had a question on why do I love the genre. I answered that all my favorite narratives in all media (literature, comics, TV, cinema, videogames) are science fiction. The thought-provoking narratives – "Donnie Darko" (2001), "Inception" (2010), "Ex Machina" (2014), etc. – are my favorite, but I don't say no to action movies like "Predator" (1987). I enjoy diversity and good stories.

Answering my Ph.D. research question will not be an easy task, but I believe the participation in national and international contests will help me reach the appropriate answer.

For more information about the project:
www.chroniclesoftimeandspace.com
www.facebook.com/chroniclesoftimeandspace

My Exploratory Journey or: How I Learned to Stop Worrying and Love my Ph.D. (Part Ten)

This is the tenth log entry of my 'exploratory journey'. I'm developing a practice-based Ph.D. thesis in Media Arts titled "Transmedia Storytelling and Speculative Worldbuilding: Graphic Literature and Cinematographic Strategies in the Construction of a Transmedial Franchise". The practical component will focus on building a transmedia franchise based on an original storyworld titled "Chronicles of Time and Space" and creating an adequate transmedia model for Portuguese creations. The thesis itself will try to answer the following research question: what are the most appropriate strategies to develop a transmedia model based on a speculative fiction storyworld?

This article will focus on the digital footprint my doctoral project has across the Internet. When building a speculative fiction transmedia franchise, and trying to create a transmedia model adequate for Portuguese creators, it is inevitable to build a network. The digital footprint across multiple platforms is symptomatic of how projects and digital natives roam the virtual world nowadays. The storyworld of the "Chronicles of Time and Space" needs this prolific multiplication of platforms to disseminate content and divulge the team's work across the world. To accelerate the dissemination, the official website (the network's hub) is being translated into several languages (English, French, Mandarin, and Portuguese).

The infographic (next page) shows the digital footprint of the project by dividing the online presence into three main areas: research, webcomics, and social media. The official website, the hub, is at the center of the network; orbiting at different distances are several websites and platforms. Their distance to the hub is related to their importance to the project. Some are more important than others, but they all contribute to the project as an all.

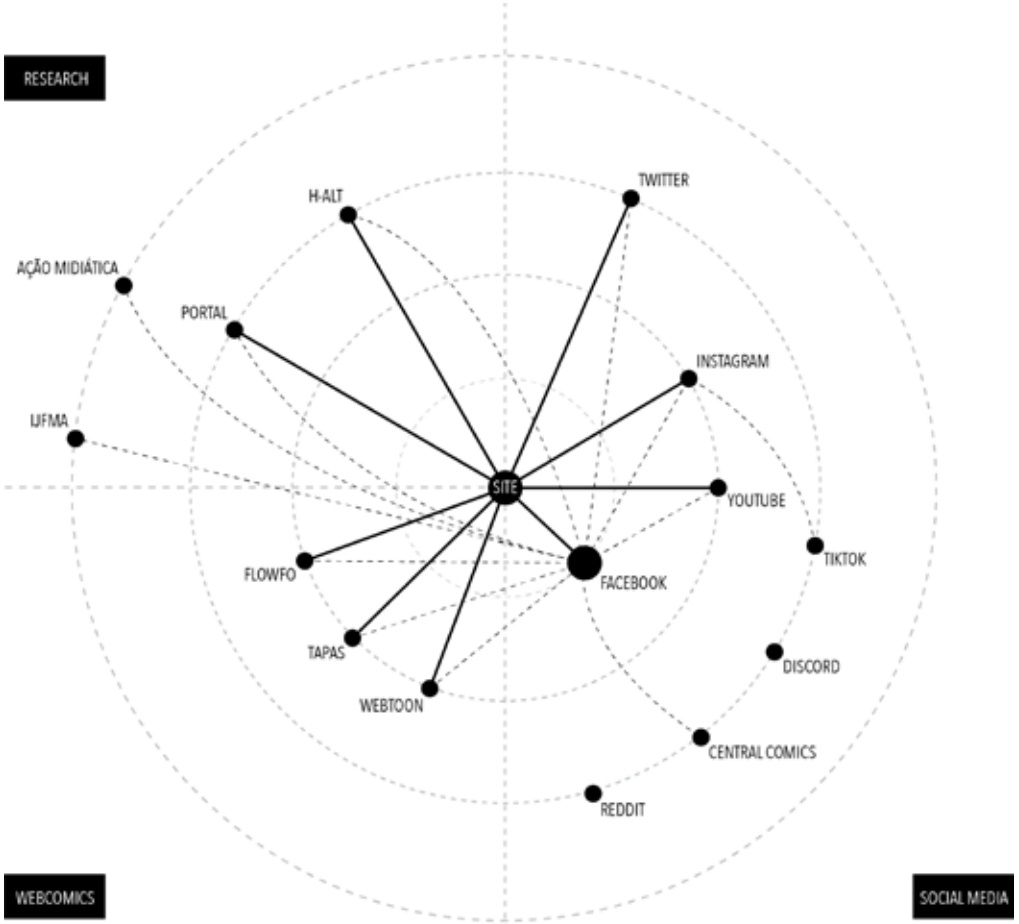
The nearest knot in the network is Facebook because it functions as a kind of the second hub; this is because of the project's page and the several pages and groups I use to divulge the project and everything connected to it.

The section titled 'social media' also integrates other services and platforms such as Instagram and YouTube. On the Instagram page, people can have access to concept art, promotion images, and small animations produced in TikTok with the static images produced by the illustrator of the project. On the YouTube channel, people can

watch the book trailer, which is available on other platforms. More videos will be made available, such as interviews and videos showing the production of the many pages of "Chronicles of Time and Space – Uluru". On Reddit and Discord, some of the same images and information are being published. On the Central Comics website, a Portuguese specialized site on comics and pop culture, two articles about the project were published. The articles made use of information available on the official website such as the poster, a few sample pages, information about the team, and the booktrailer.

The section titled 'webcomics' is composed of the platforms Flowfo, Tapas, and Webtoon, which were the selected websites dedicated to webcomics where the first volume of the graphic novel "Chronicles of Time and Space – Uluru" will be published. The built-in audience allows the project to be read by many people around the world. The sci-fi story about the eponymous character Uluru will debut in December but a few pages with information about the project have been published on these digital comics platforms.

The section titled 'research' combines articles such as this one published on The Portuguese Portal of Science Fiction and Fantasy, interviews with several national and international comics authors published on the H-alt comics magazine, and two academic papers about videogames and the new myths of speculative fiction published on the journals Ação Midiática, and International Journal of Film and Media Arts. These articles, interviews, and papers will be paramount for the development of the project and the writing of the thesis; all these texts are available on the official Facebook page of the project.



Websites:
www.chroniclesoftimeandspace.com
www.facebook.com/chroniclesoftimeandspace
https://tapas.io/MarcoFragaSilva
www.webtoons.com/en/challenge/dashboardEpisode?titleNo=600725
https://flowfo.me/artwork/MarcoFragaSilva/ULURU
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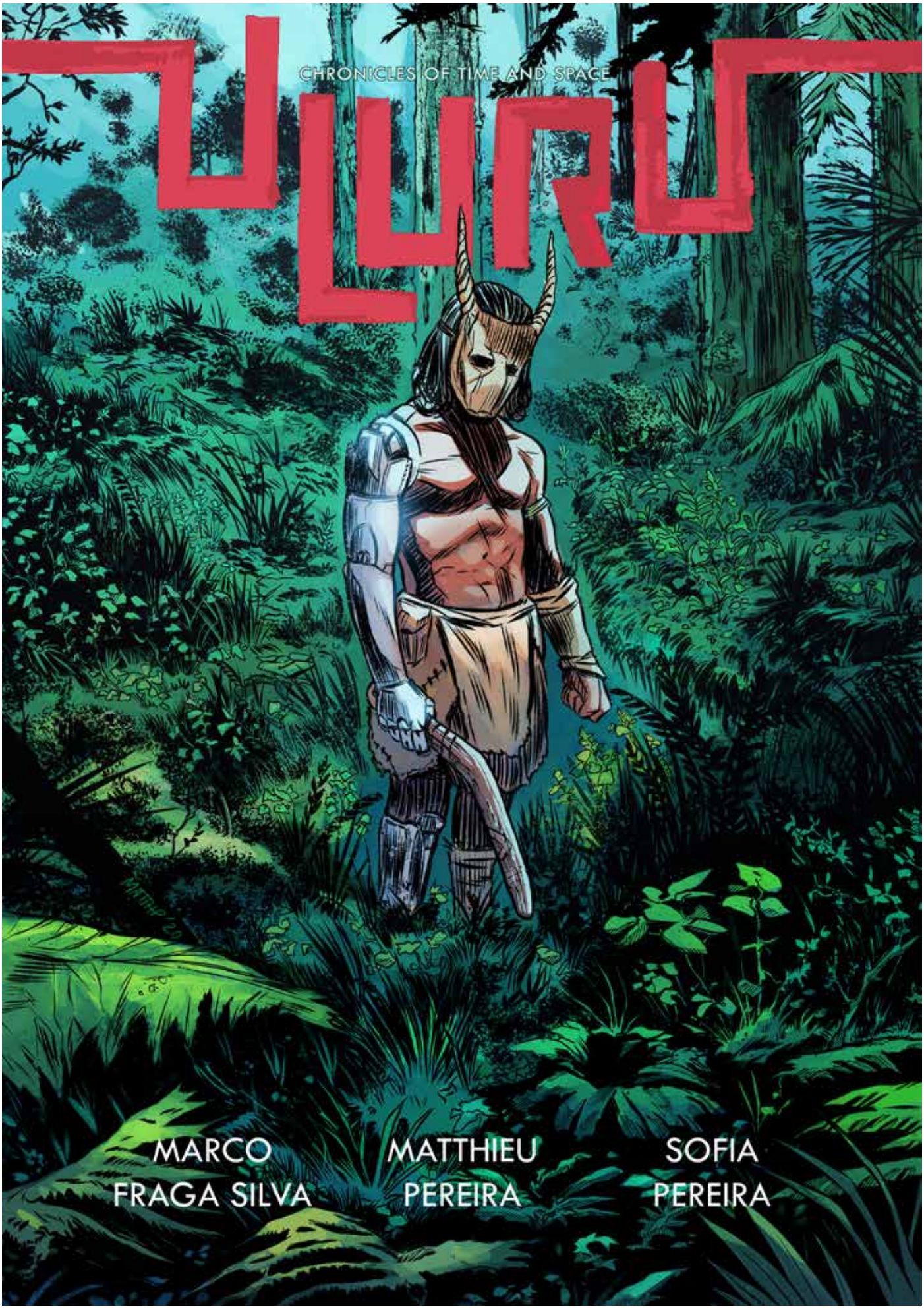
THE BOOK COVER AND PROMOTIONAL POSTER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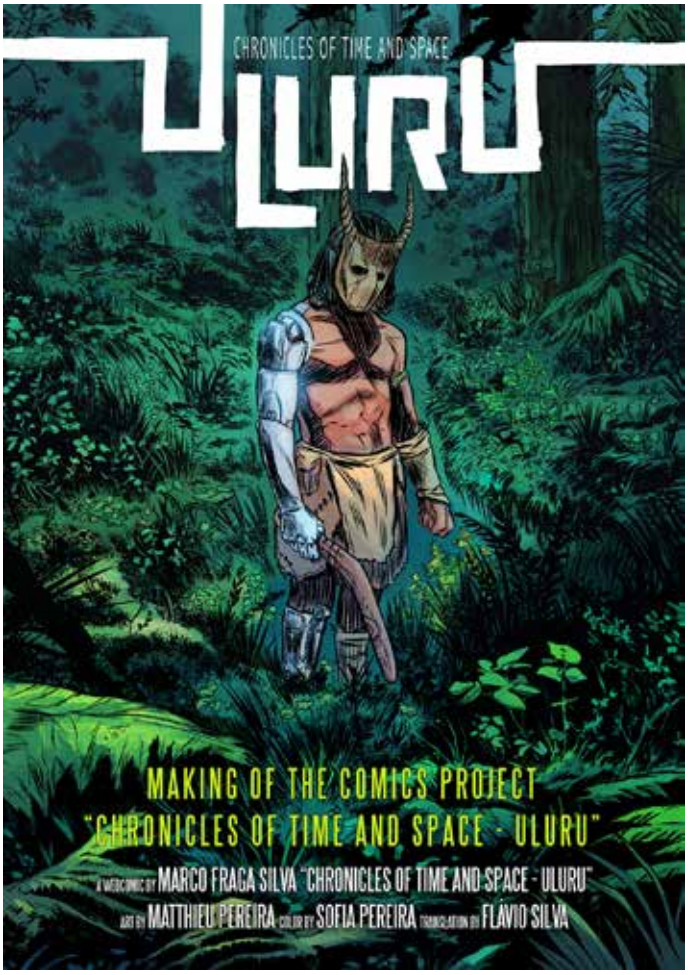
MATTHIEU PEREIRA
SOFIA PEREIRA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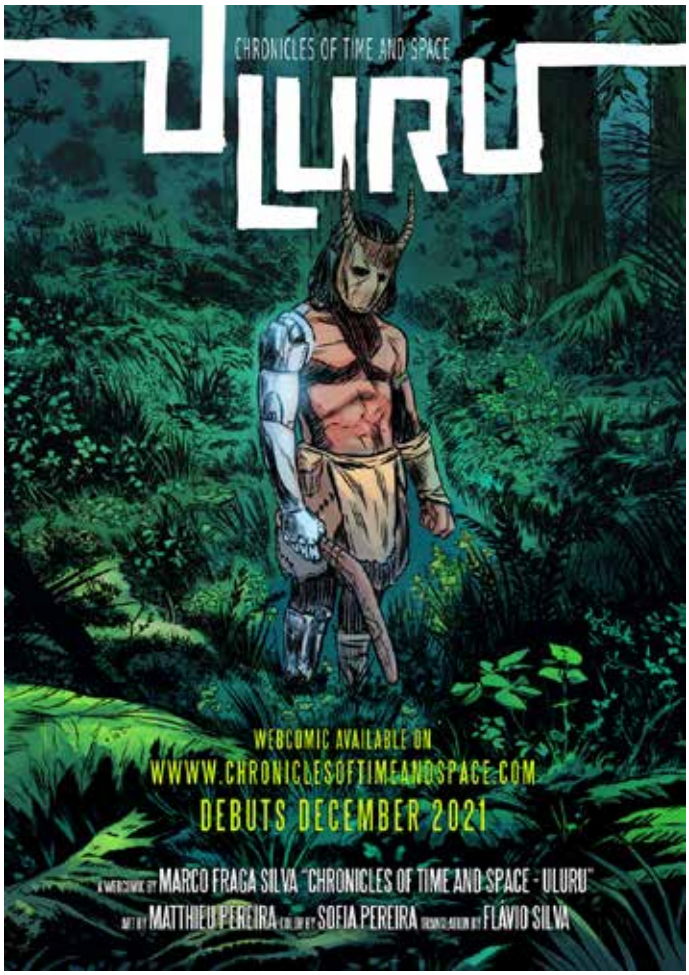
ULURU
MAKING OF THE COMICS PROJECT
"CHRONICLES OF TIME AND SPACE - ULURU"
A WEBCOMIC BY MARCO FRAGA SILVA "CHRONICLES OF TIME AND SPACE - ULURU"
ART BY MATTHIEU PEREIRA COLOR BY SOFIA PEREIRA TRANSLATION BY FLÁVIO SILVA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ULURU
WEBCOMIC AVAILABLE ON
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DEBUTS DECEMBER 2021
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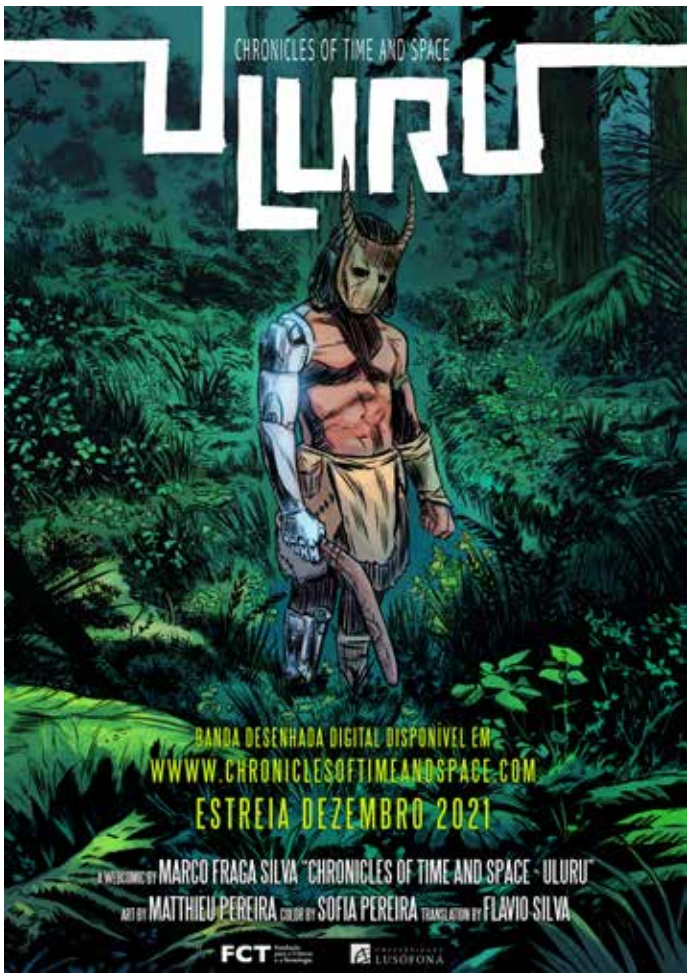
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ART BY MATTHIEU PEREIRA COLOR BY SOFIA PEREIRA TRANSLATION BY FLÁVIO SILVA
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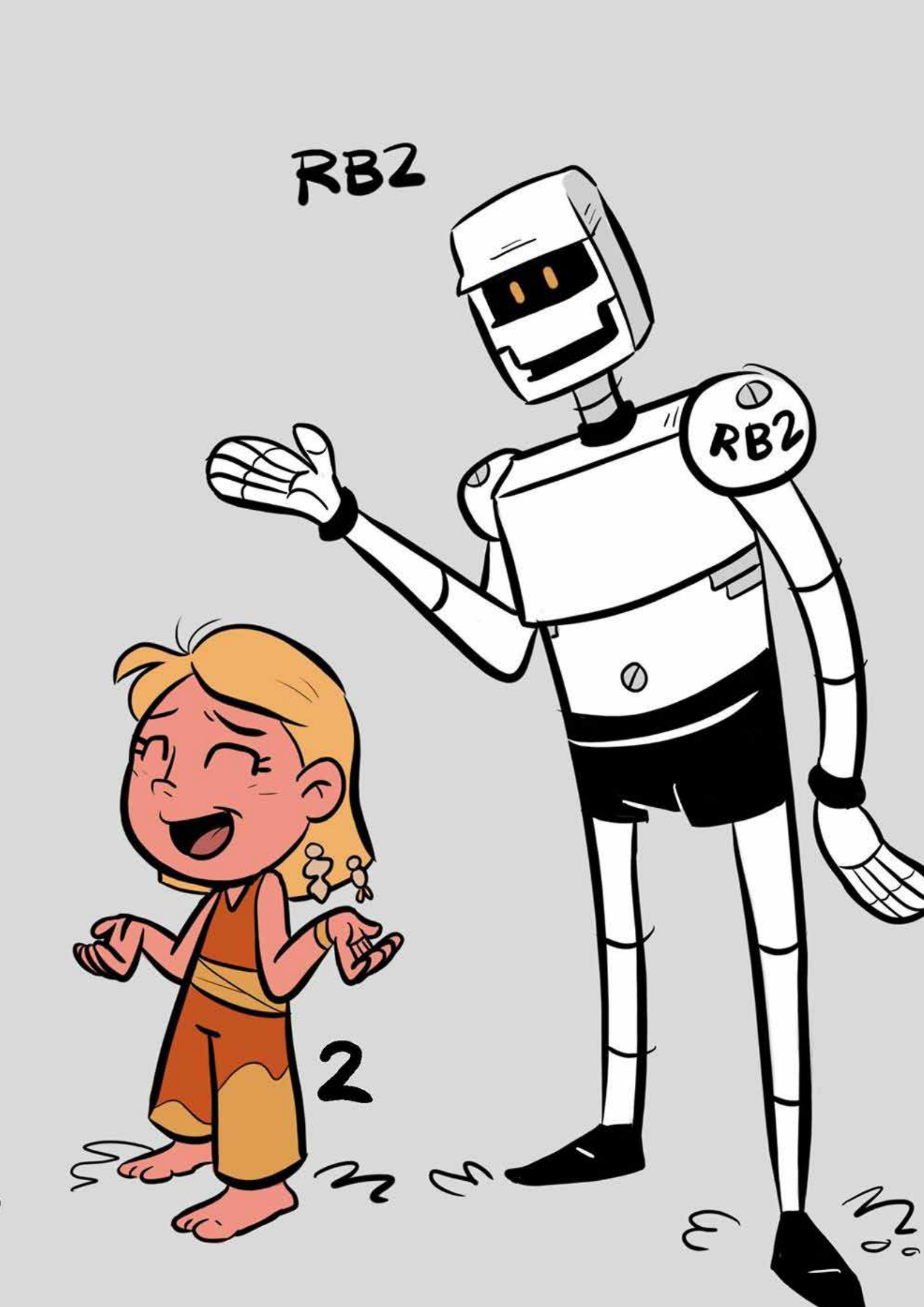
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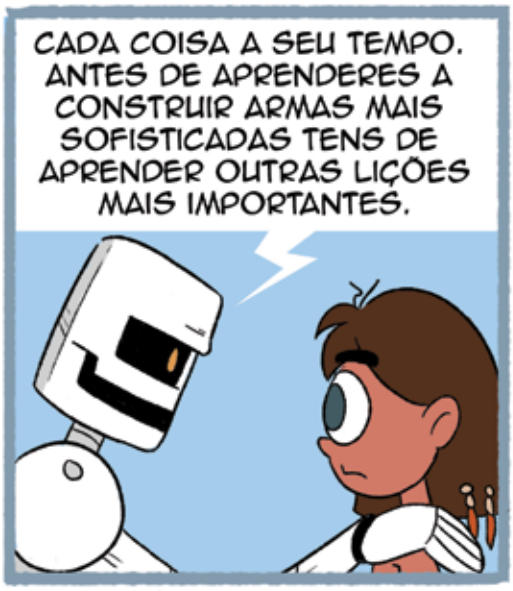
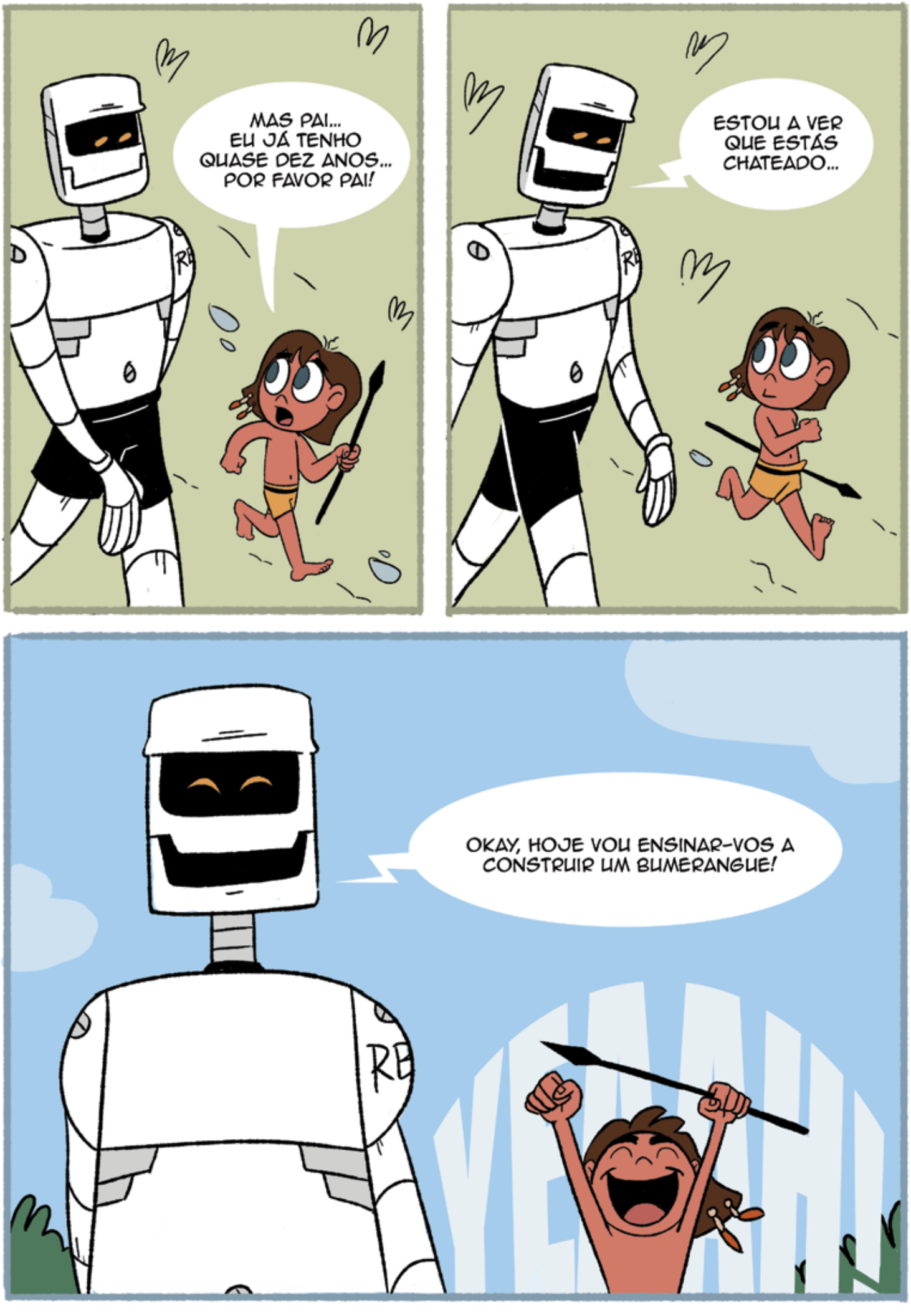
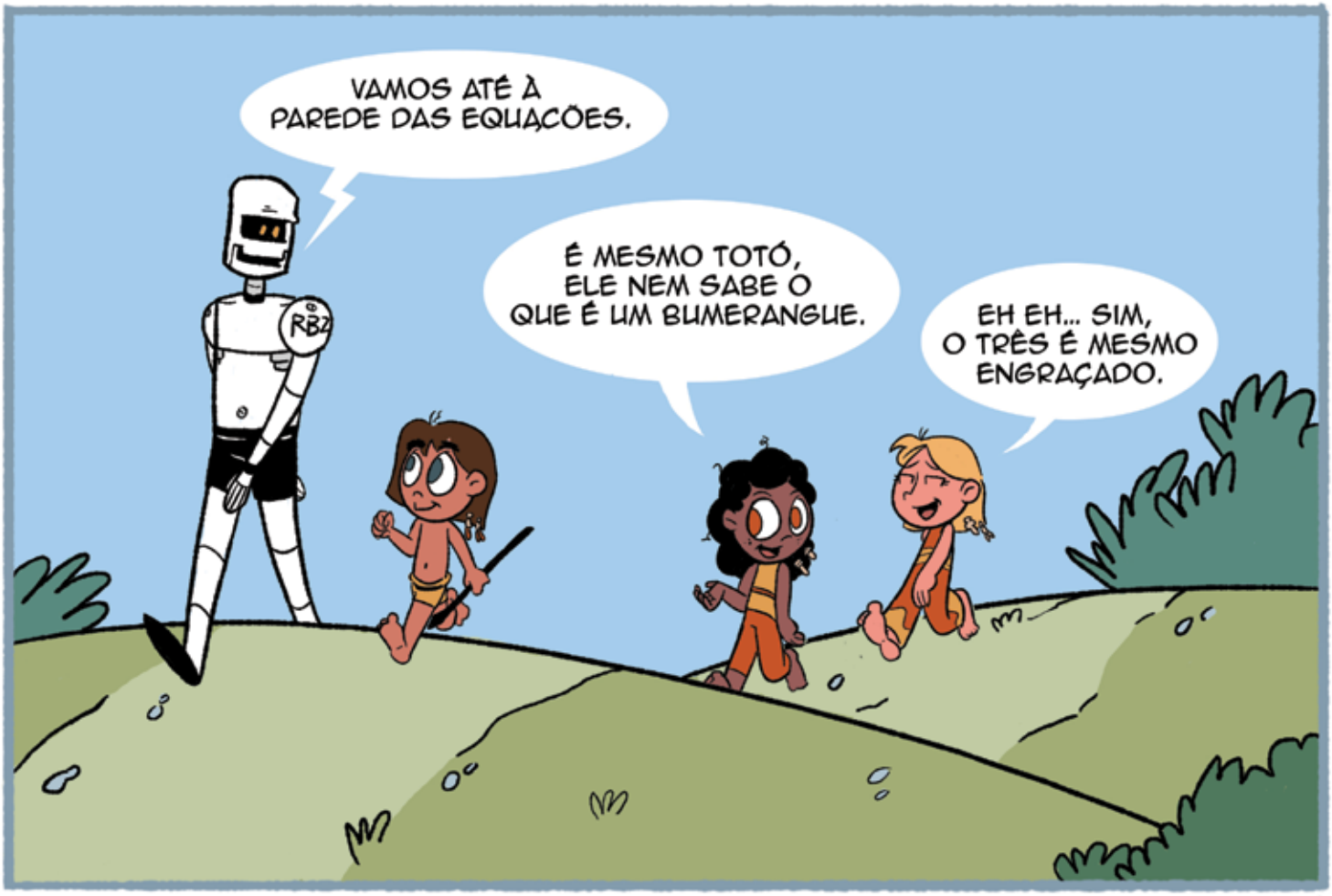
A LIÇÃO

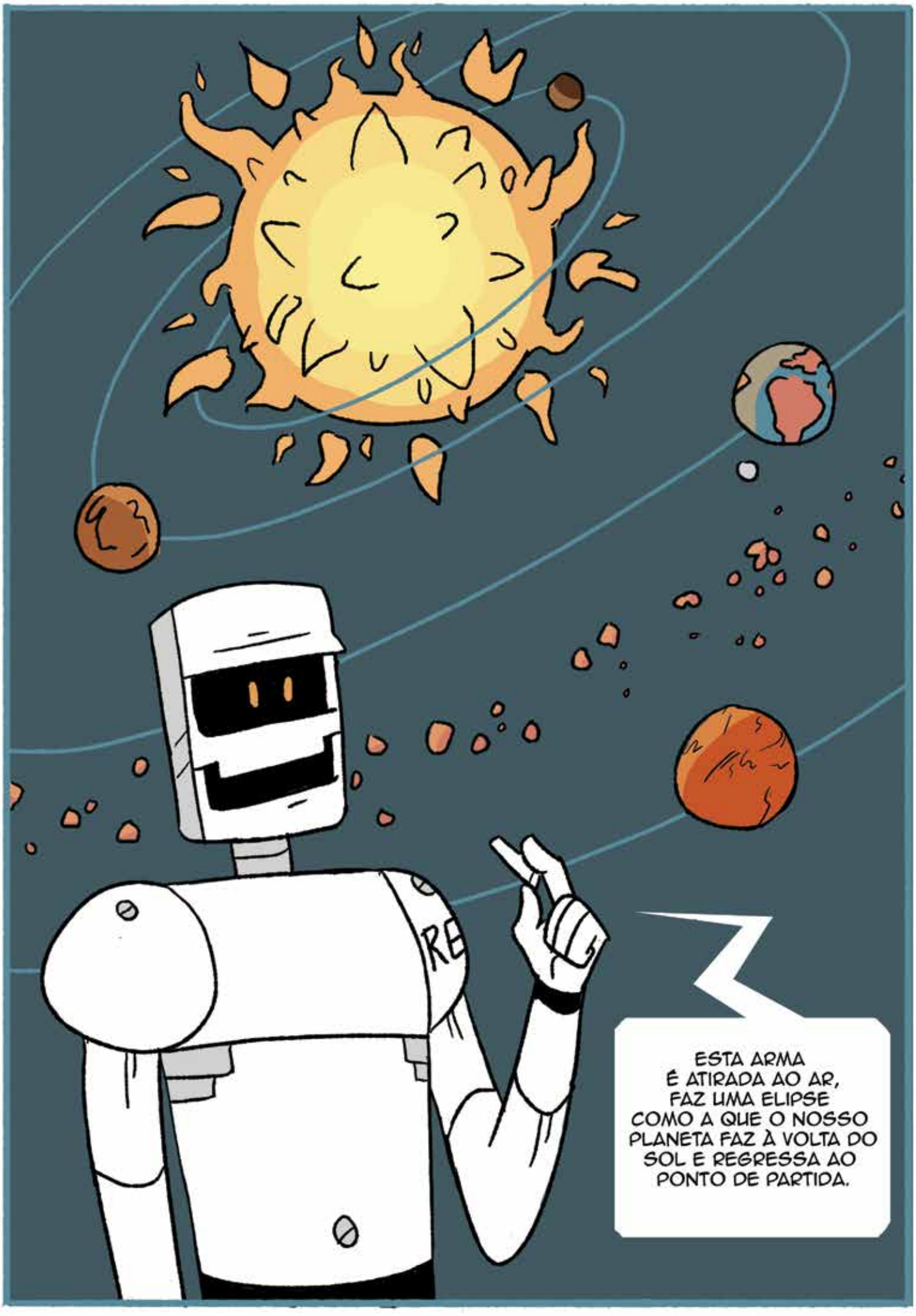
ARGUMENTO: MARCO FRAGA DA SILVA
ARTE: DIOGO ALVES

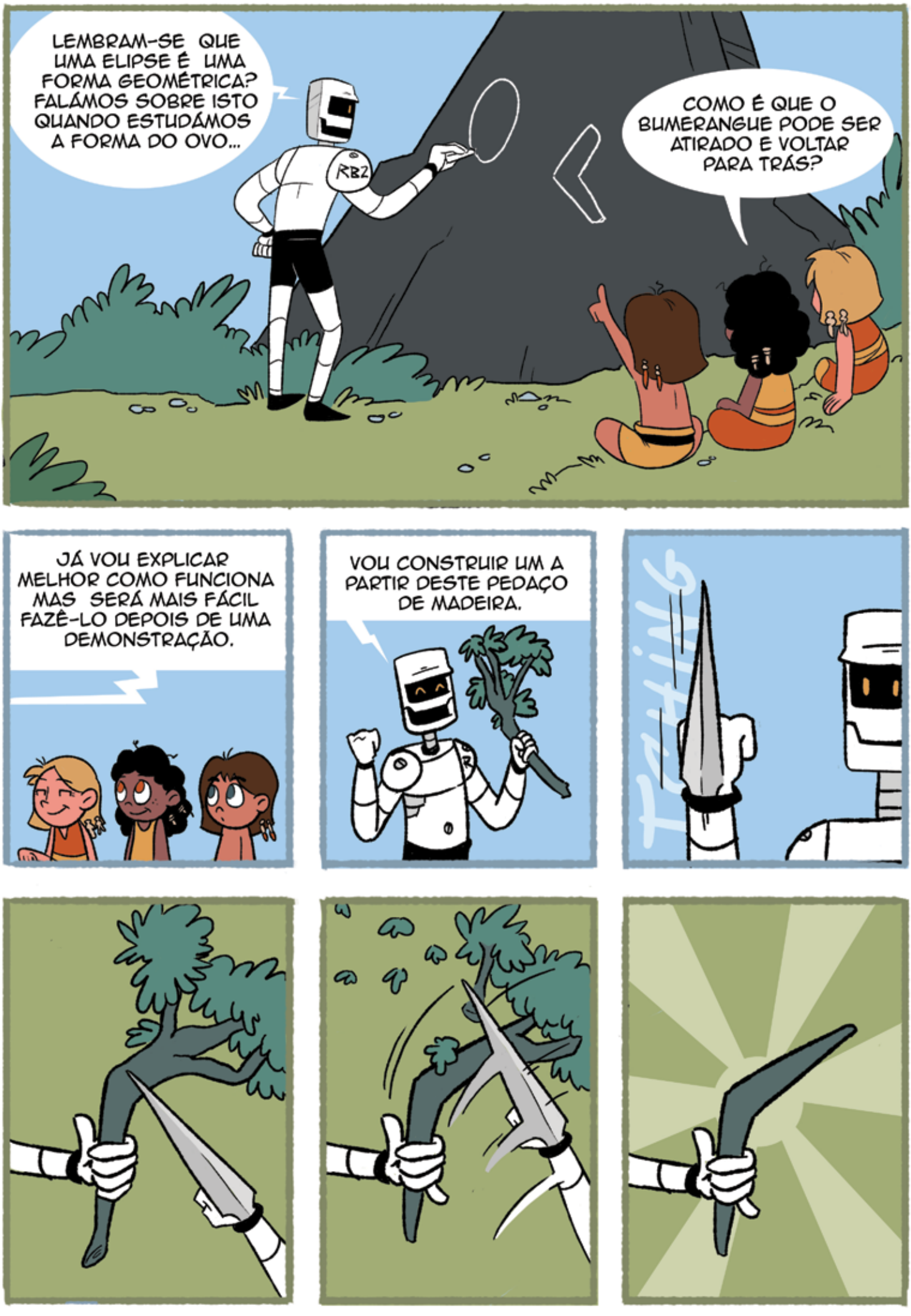


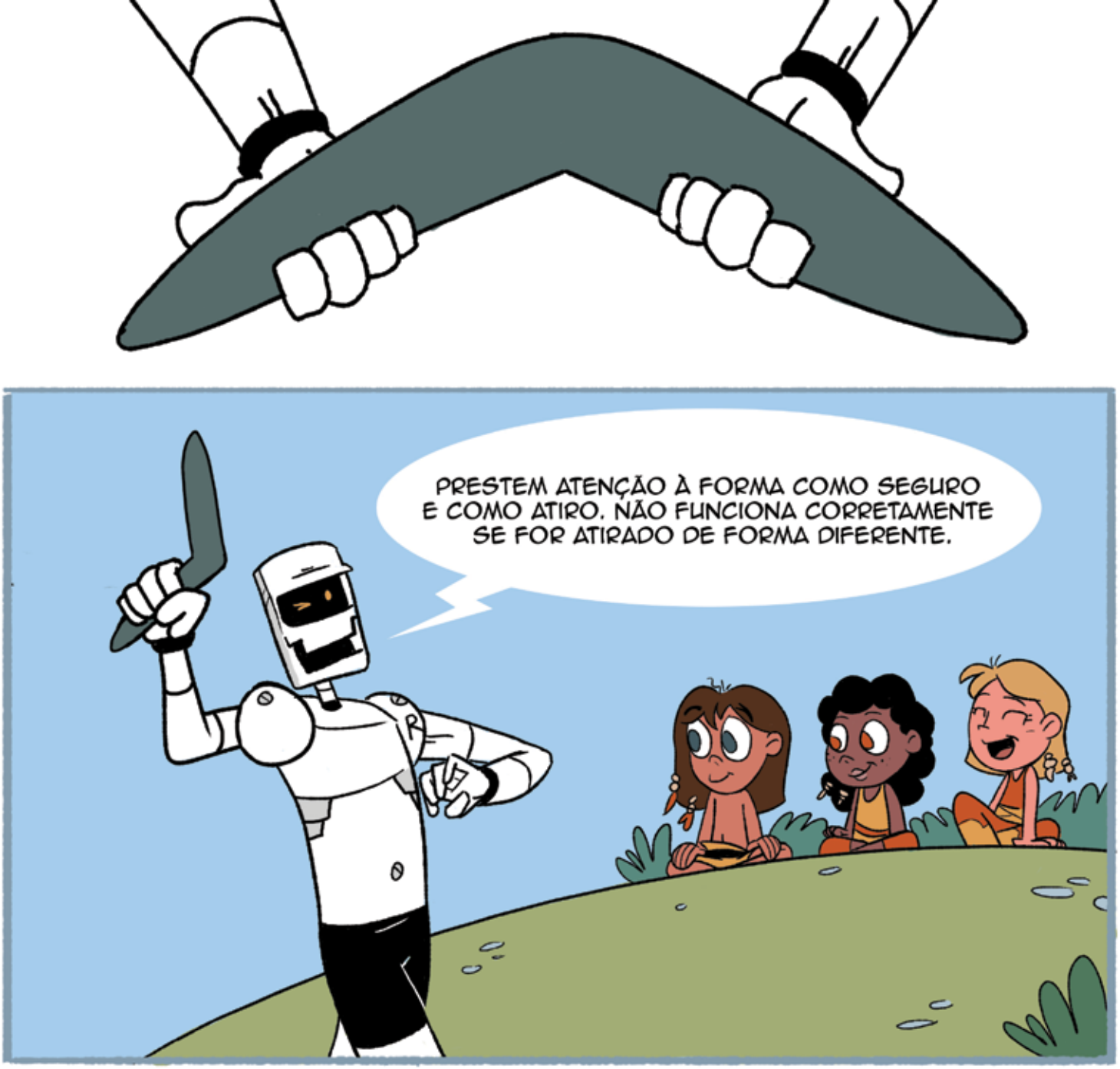

MAS PAI... EU JÁ TENHO QUASE DEZ ANOS... POR FAVOR PAI!
ESTOU A VER QUE ESTÁS CHATEADO...
OKAY, HOJE VOU ENSINAR-VOS A CONSTRUIR UM BUMERANGUE!

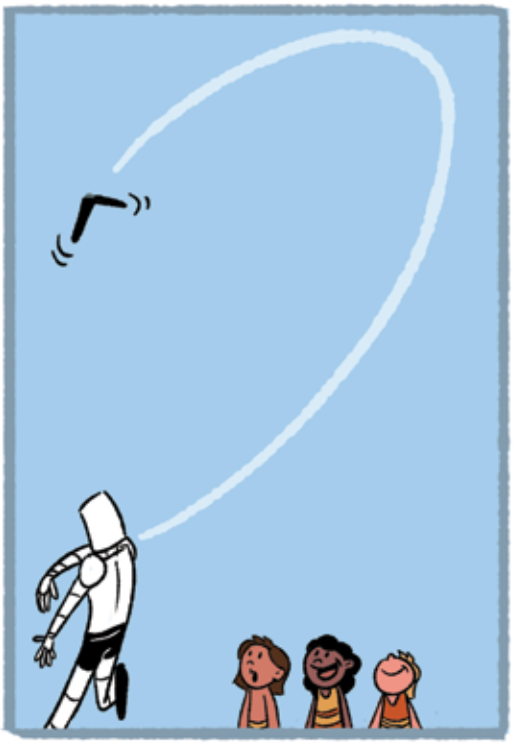

VAMOS ATÉ À PAREDE DAS EQUAÇÕES.
RB2
É MESMO TOTÓ, ELE NEM SABE O QUE É UM BUMERANGUE.
EH EH... SIM, O TRÊS É MESMO ENGRAÇADO.

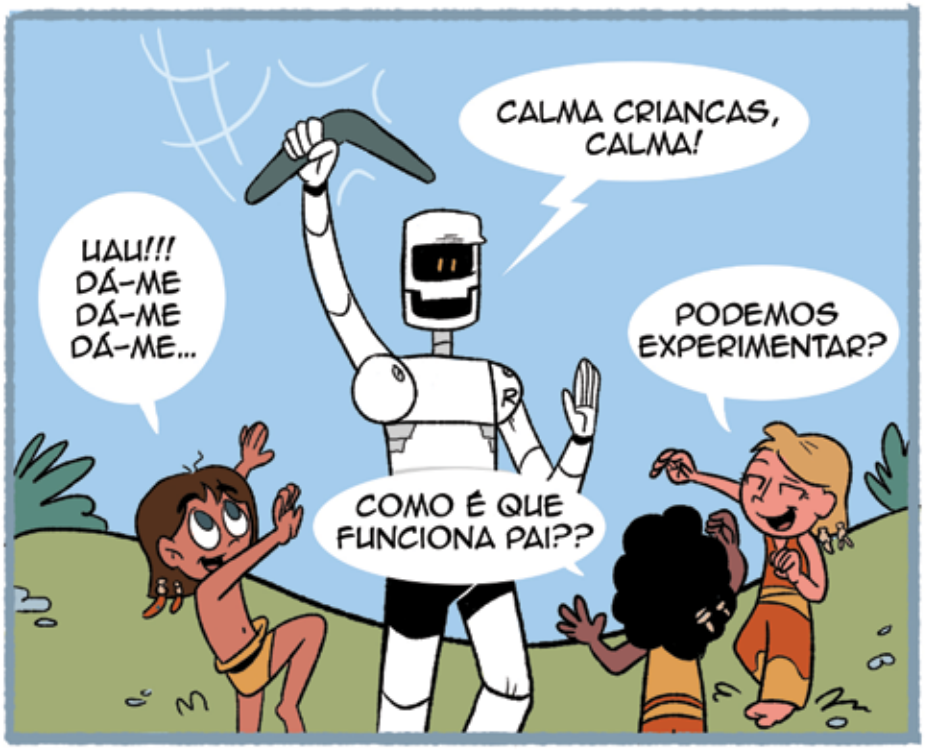
HOJE COMEÇAMOS A AULA COM A CONSTRUÇÃO DE UM BUMERANGUE. É UMA FERRAMENTA DE MADEIRA PARA CAÇAR.
UM BUMERANGUE TEM ESTA FORMA...

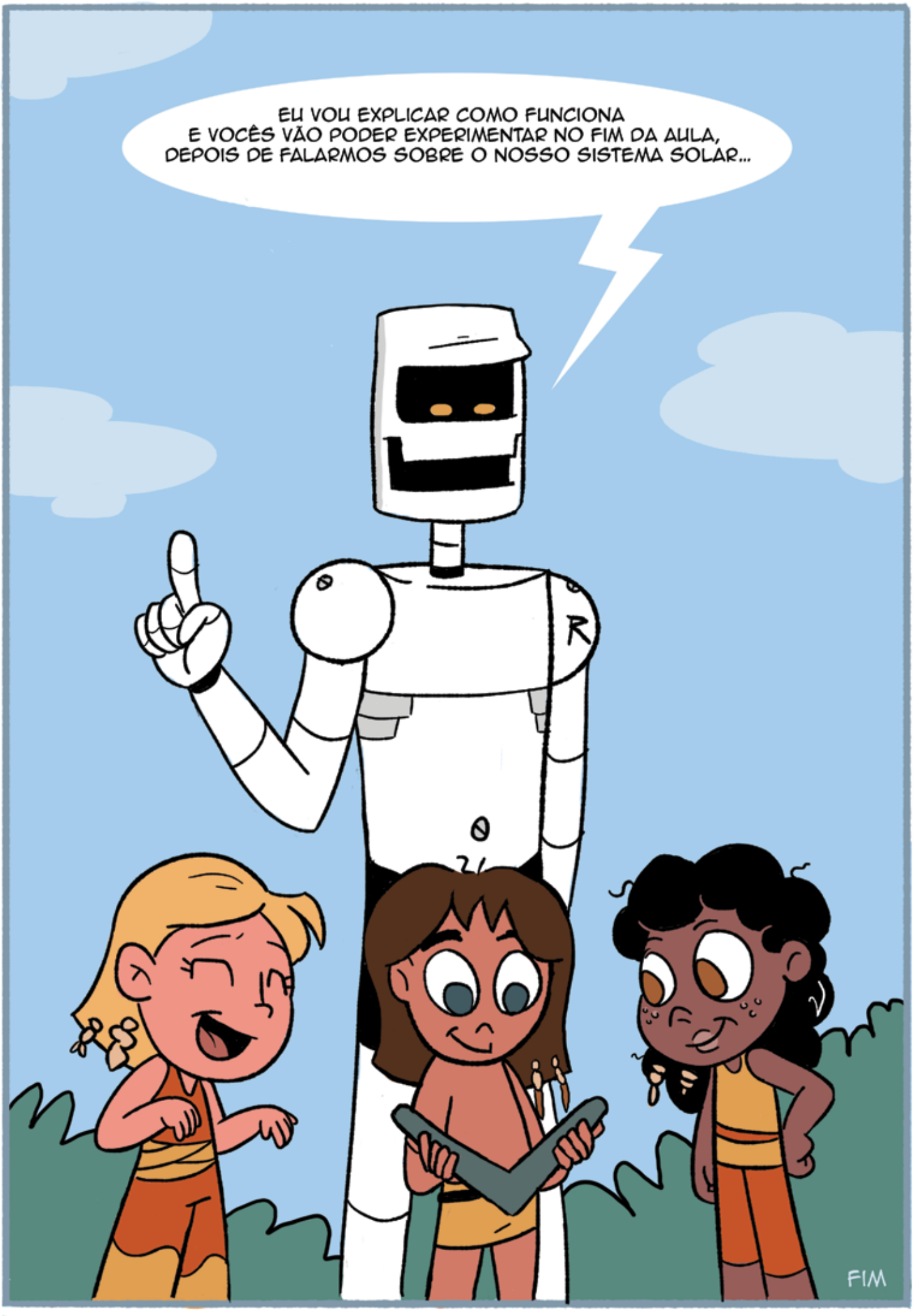

ESTA ARMA É ATIRADA AO AR, FAZ UMA ELIPSE COMO A QUE O NOSSO PLANETA FAZ À VOLTA DO SOL E REGRESSA AO PONTO DE PARTIDA.

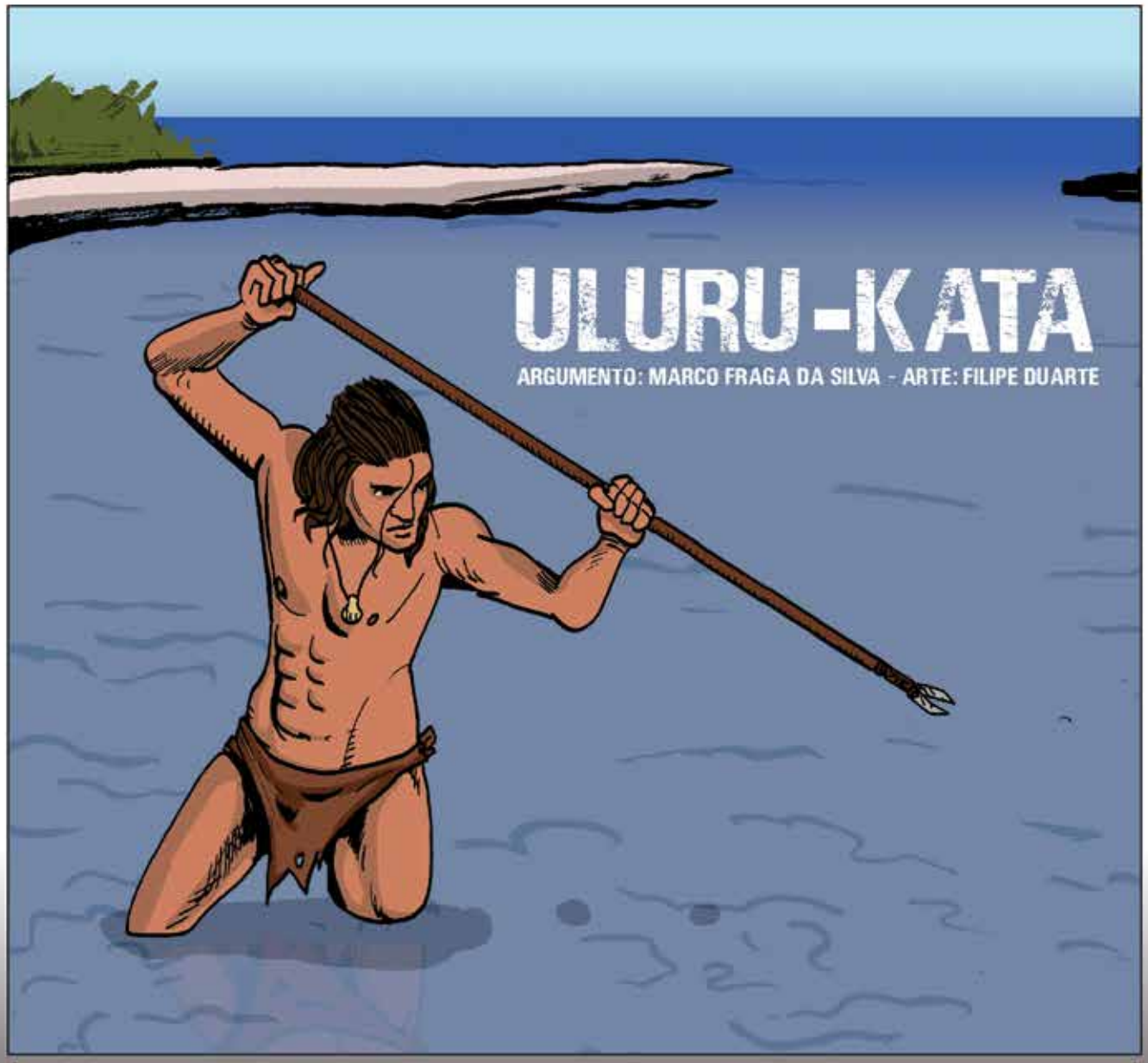

LEMBRAM-SE QUE UMA ELIPSE É UMA FORMA GEOMÉTRICA? FALÁMOS SOBRE ISTO QUANDO ESTUDÁMOS A FORMA DO OVO...
RBZ
COMO É QUE O BUMERANGUE PODE SER ATIRADO E VOLTAR PARA TRÁS?
JÁ VOU EXPLICAR MELHOR COMO FUNCIONA MAS SERÁ MAIS FÁCIL FAZÊ-LO DEPOIS DE UMA DEMONSTRAÇÃO.
VOU CONSTRUIR UM A PARTIR DESTE PEDAÇO DE MADEIRA.
Tahins


PRESTEM ATENÇÃO À FORMA COMO SEGURO E COMO ATIRO. NÃO FUNCIONA CORRETAMENTE SE FOR ATIRADO DE FORMA DIFERENTE.

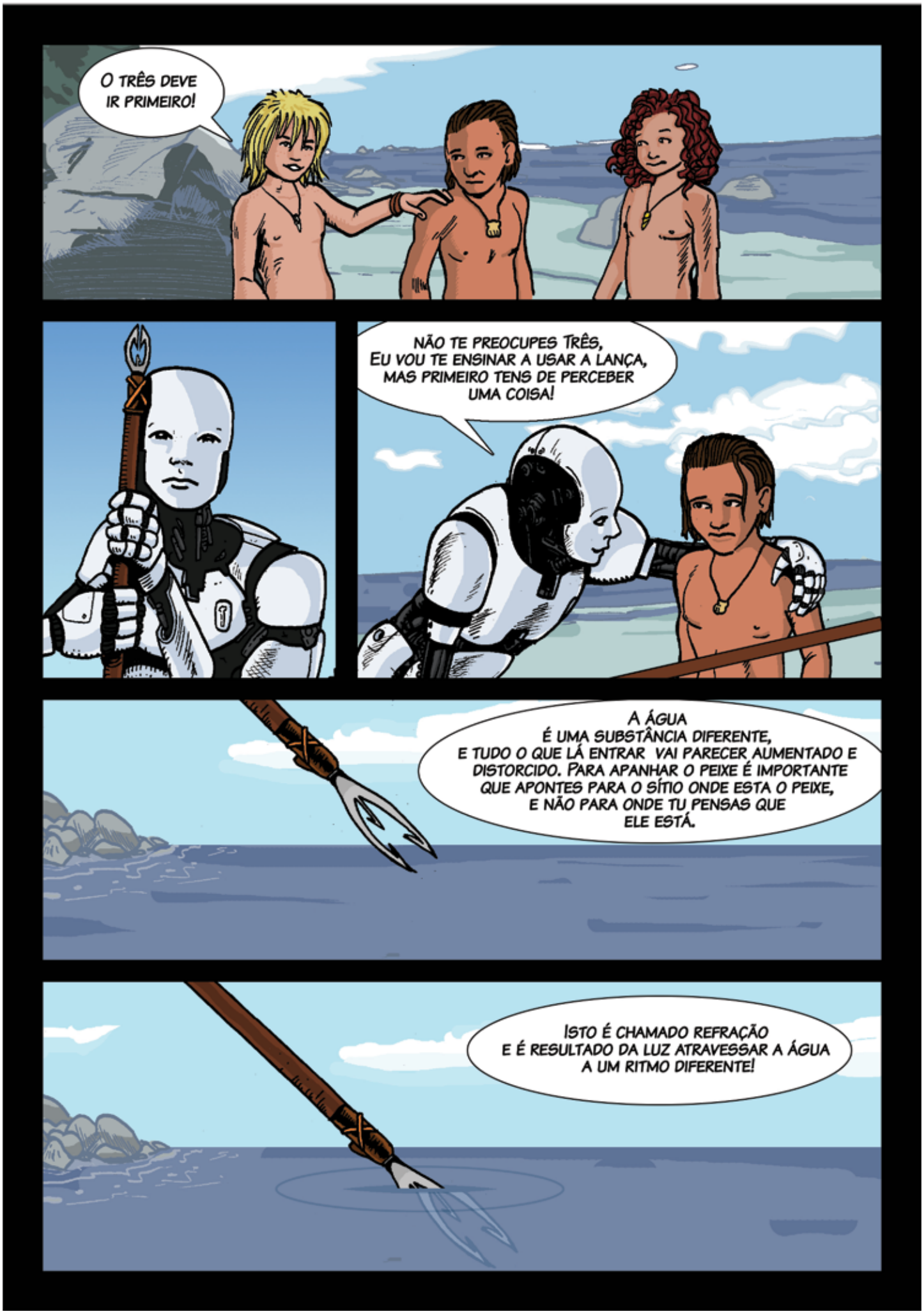


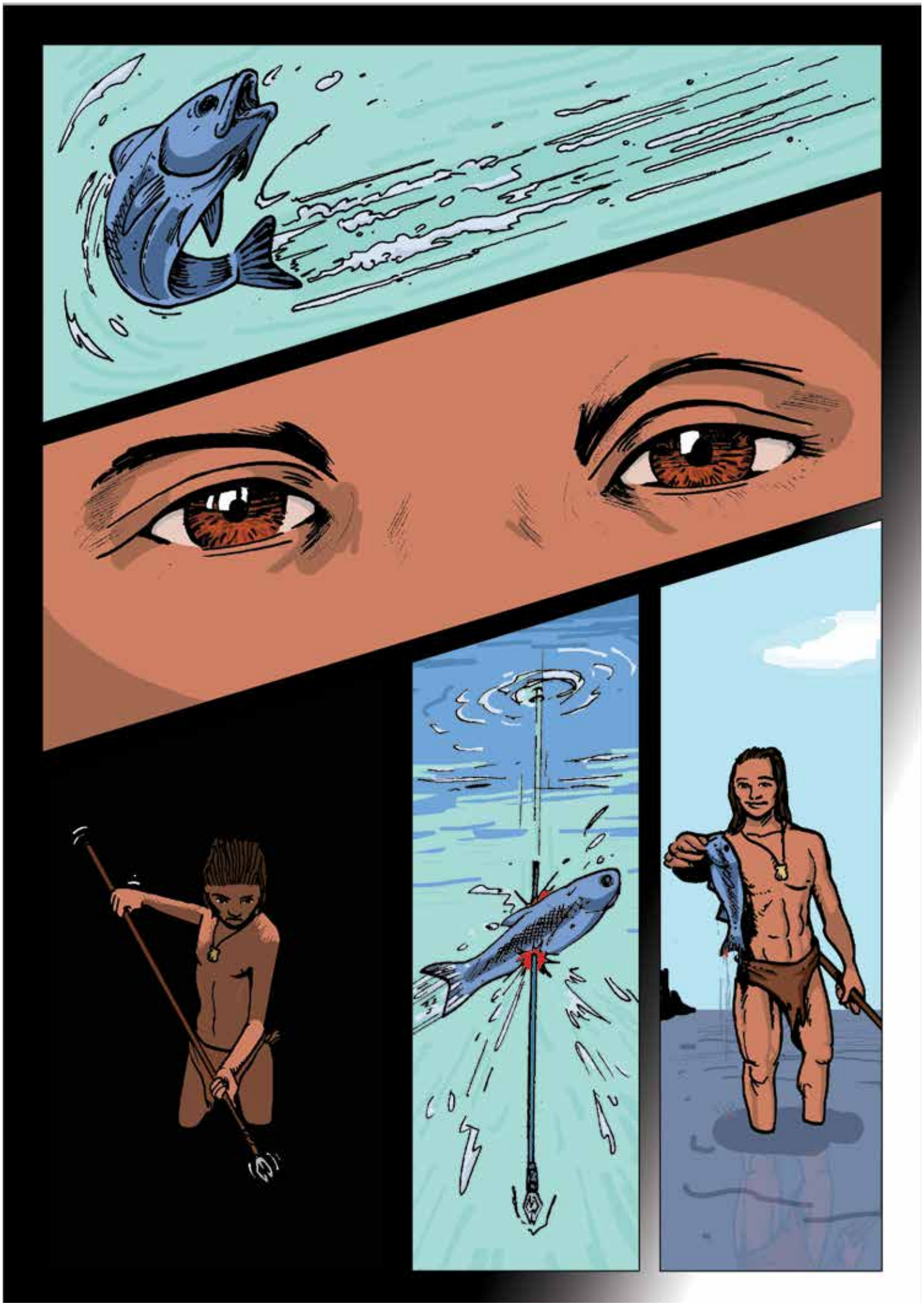

CALMA CRIANCAS, CALMA!
UAU!!! DÁ-ME DÁ-ME DÁ-ME...
PODEMOS EXPERIMENTAR?
COMO É QUE FUNCIONA PAI??


EU VOU EXPLICAR COMO FUNCIONA
E VOCÊS VÃO PODER EXPERIMENTAR NO FIM DA AULA,
DEPOIS DE FALARMOS SOBRE O NOSSO SISTEMA SOLAR...
R
FIM


ULURU-KATA
ARGUMENTO: MARCO FRAGA DA SILVA - ARTE: FILIPE DUARTE

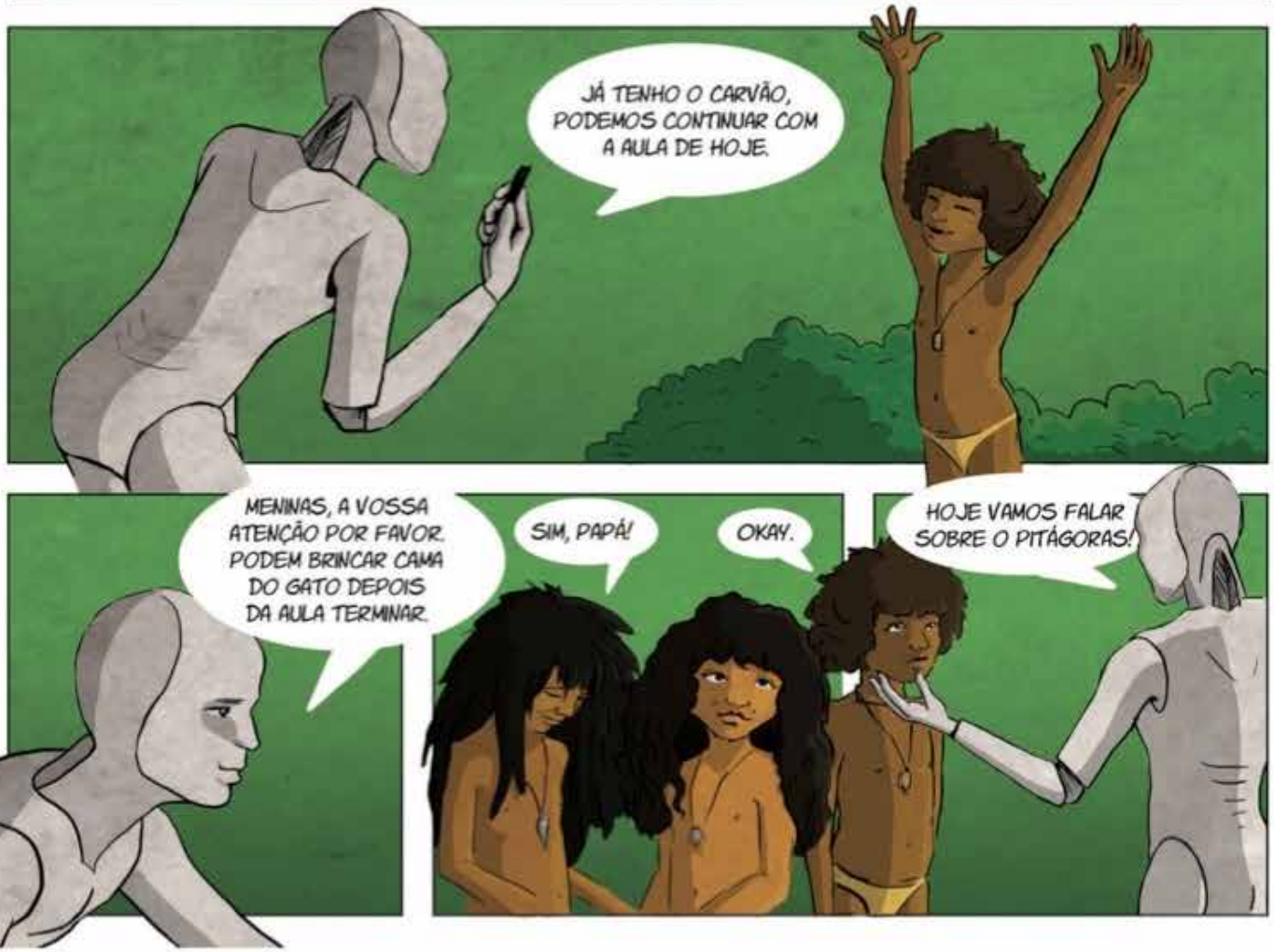
DEZ...
ANOS...
ANTES!

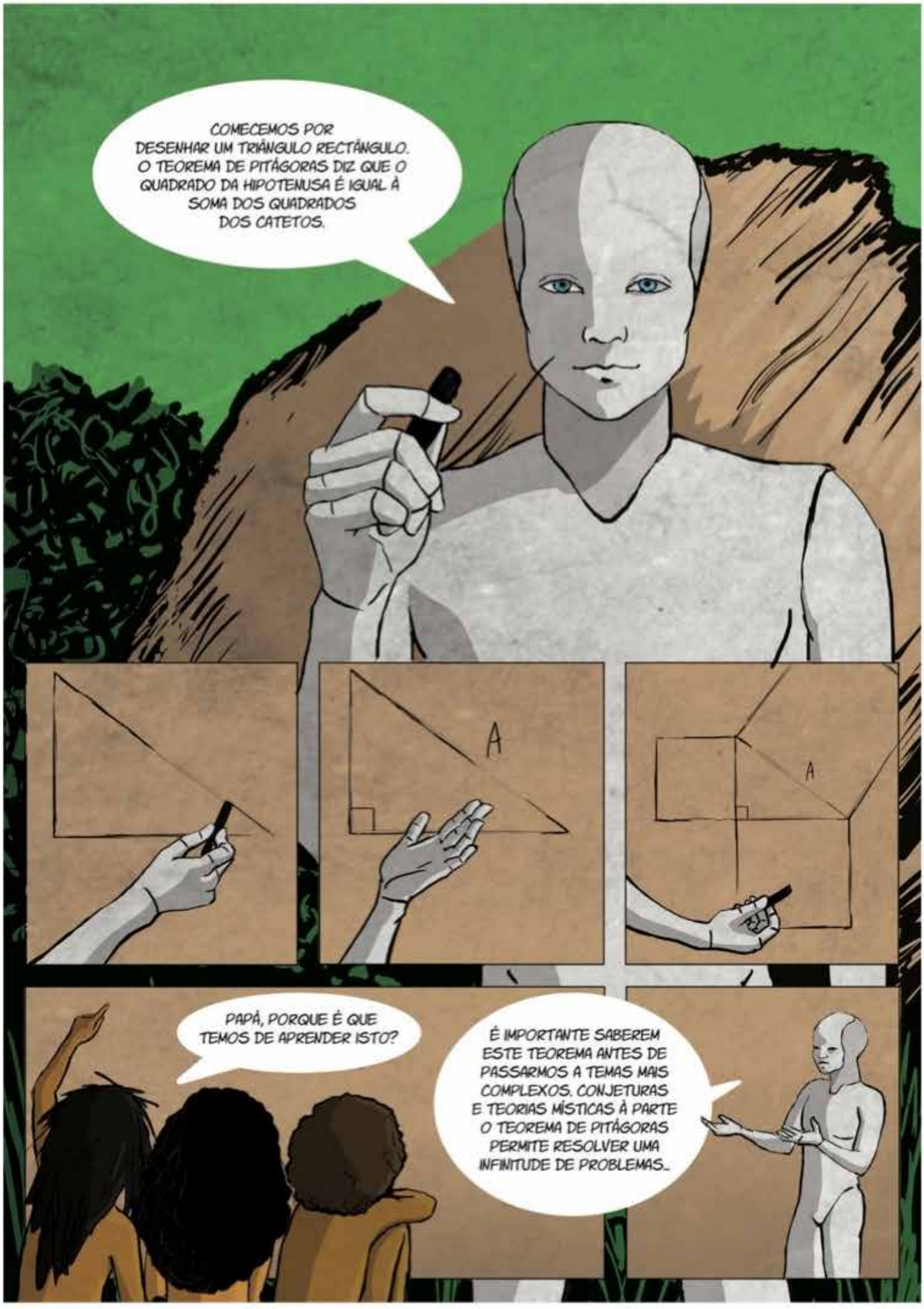

O TRÊS DEVE IR PRIMEIRO!
NÃO TE PREOCUPES TRÊS, EU VOU TE ENSINAR A USAR A LANÇA, MAS PRIMEIRO TENS DE PERCEBER UMA COISA!
A ÁGUA É UMA SUBSTÂNCIA DIFERENTE, E TUDO O QUE LÁ ENTRAR VAI PARECER AUMENTADO E DISTORCIDO. PARA APANHAR O PEIXE É IMPORTANTE QUE APONTES PARA O SÍTIO ONDE ESTA O PEIXE, E NÃO PARA ONDE TU PENSAS QUE ELE ESTÁ.
ISTO É CHAMADO REFRAÇÃO E É RESULTADO DA LUZ ATRAVESSAR A ÁGUA A UM RITMO DIFERENTE!

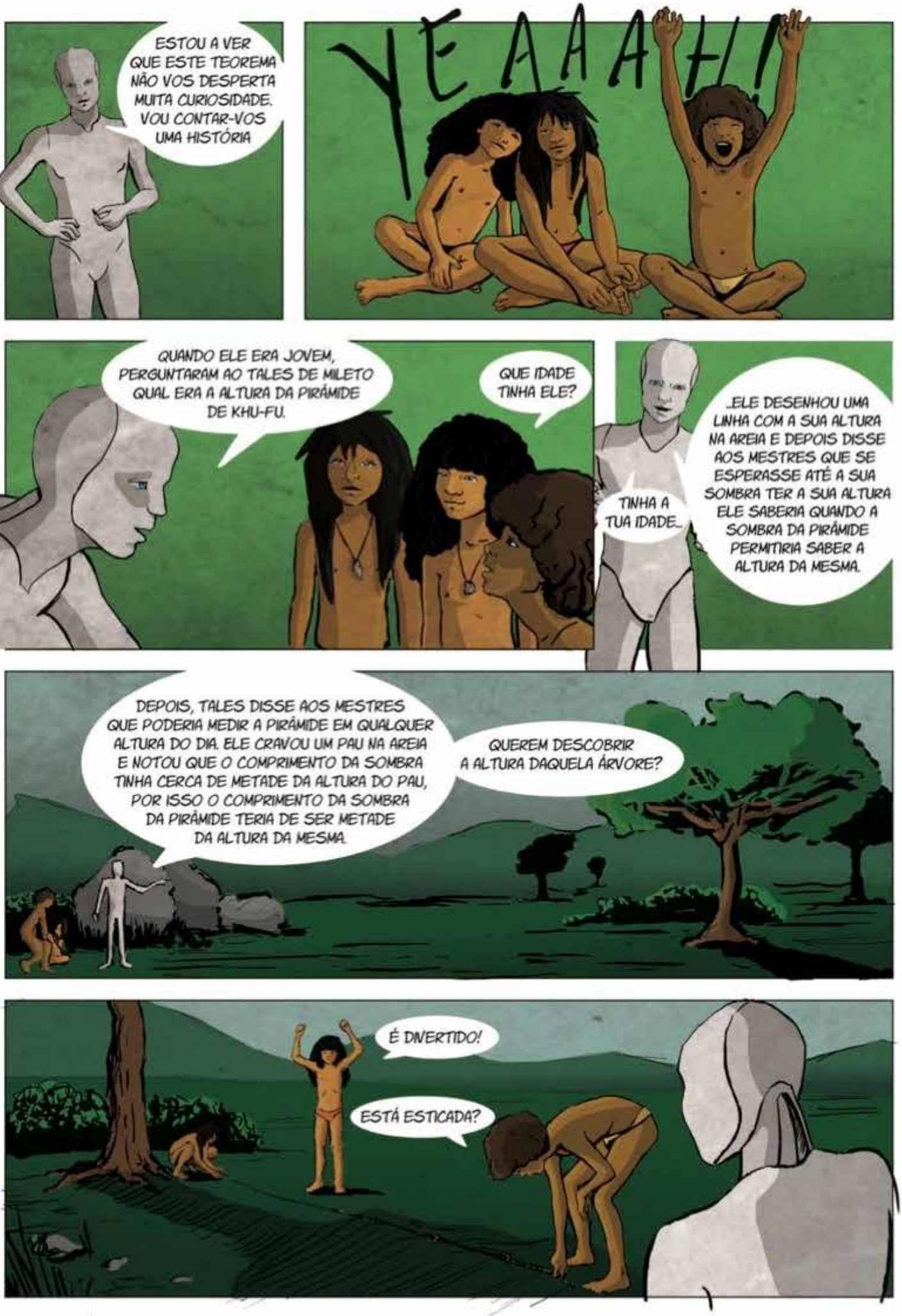


CRÓNICAS DA TERRA

GUIÃO: MARCO FRAGA DA SILVA
ARTE: ANA LOPES
COR E BALONAGEM: RAQ'S RODRIGUES

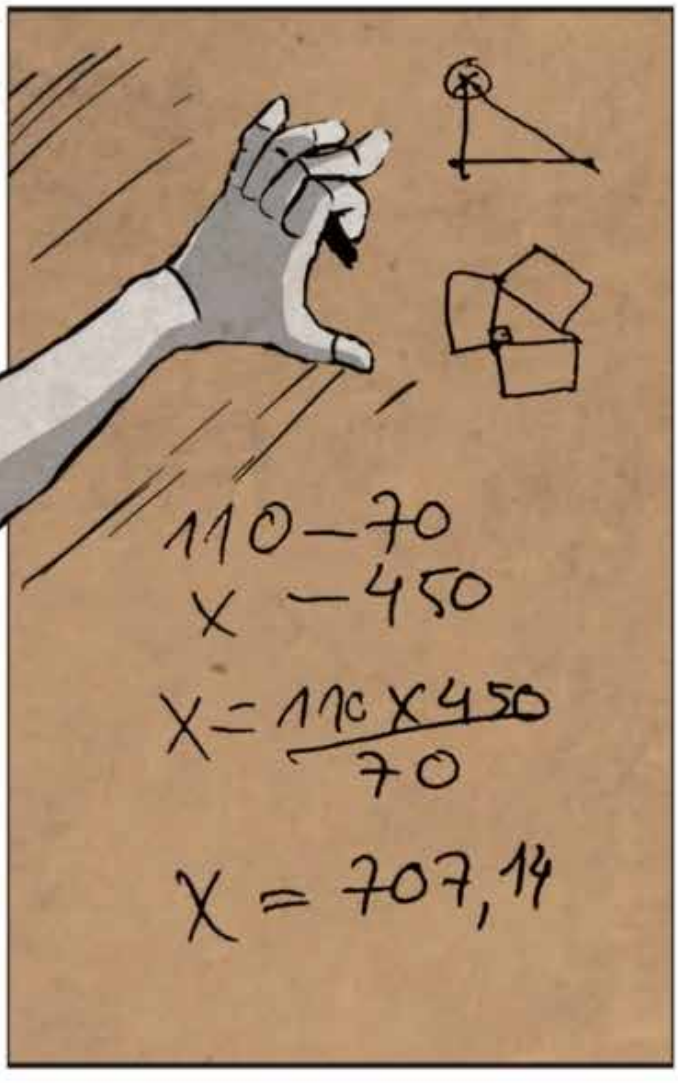



COMECEMOS POR DESENHAR UM TRIÂNGULO RECTÂNGULO. O TEOREMA DE PITÁGORAS DIZ QUE O QUADRADO DA HIPOTENUSA É IGUAL À SOMA DOS QUADRADOS DOS CATETOS.
A
A
PAPÁ, PORQUE É QUE TEMOS DE APRENDER ISTO?
É IMPORTANTE SABEREM ESTE TEOREMA ANTES DE PASSARMOS A TEMAS MAIS COMPLEXOS. CONJETURAS E TEORIAS MÍSTICAS À PARTE O TEOREMA DE PITÁGORAS PERMITE RESOLVER UMA INFINITUDE DE PROBLEMAS.


ESTOU A VER QUE ESTE TEOREMA NÃO VOS DESPERTA MUITA CURIOSIDADE. VOU CONTAR-VOS UMA HISTÓRIA
YEAAAH!
QUANDO ELE ERA JOVEM, PERGUNTARAM AO TALES DE MILETO QUAL ERA A ALTURA DA PIRÂMIDE DE KHU-FU.
QUE IDADE TINHA ELE?
TINHA A TUA IDADE...
...ELE DESENHOU UMA LINHA COM A SUA ALTURA NA AREIA E DEPOIS DISSE AOS MESTRES QUE SE ESPERASSE ATÉ A SUA SOMBRA TER A SUA ALTURA ELE SABERIA QUANDO A SOMBRA DA PIRÂMIDE PERMITIRIA SABER A ALTURA DA MESMA.
DEPOIS, TALES DISSE AOS MESTRES QUE PODERIA MEDIR A PIRÂMIDE EM QUALQUER ALTURA DO DIA. ELE CRAVOU UM PAU NA AREIA E NOTOU QUE O COMPRIMENTO DA SOMBRA TINHA CERCA DE METADE DA ALTURA DO PAU, POR ISSO O COMPRIMENTO DA SOMBRA DA PIRÂMIDE TERIA DE SER METADE DA ALTURA DA MESMA.
QUEREM DESCOBRIR A ALTURA DAQUELA ÁRVORE?
É DIVERTIDO!
ESTÁ ESTICADA?

..SABEMOS QUE VOCÊS MEDE 110 CM..

USANDO A REGRA DE TRÊS SIMPLES PODEMOS SABER QUE A ALTURA DA ÁRVORE É DE POUCO MAIS DE 7 METROS. AGORA TENHO OUTRA QUESTÃO PARA VOCÊS: QUAL É A DISTÂNCIA ENTRE O TOPO DA ÁRVORE E O TOPO DA SOMBRA DA ÁRVORE. NOTEM QUE FORMA UM TRIÂNGULO RETO.. NÃO VOS FAZ LEMBRAR DE NADA?.



ULURU

CHRONICLES OF TIME AND SPACE