

Europeana Learning Scenario

(Museum Educators)

Title

Expedition to the Amazonia

Author(s)

Pedro Alvito

Abstract

The Portuguese expedition of Alexandre Rodrigues Ferreira to the Amazonia in 1783-1792 was one scientific milestone of the 18th century. Using this trip as a backdrop, we will learn that Amazonia is part of everyone’s natural and cultural heritage. It consists of three activities and a final quiz in which the proposed objectives are achieved through gaming. The journey made by Alexandre Rodrigues Ferreira is fully symbolized by a Hopscotch in an outdoor court. Besides knowing the names of the explored rivers, represented in the game, the markers used symbolize the dangers that this tropical ecosystem faces. A concentration (card game) introduces some Amazonian tribes that came across during his philosophical expedition. The objects shown in the cards are then used to infer about their lifestyle. Based on a selection of its animal illustrations, participants will master the art of create animal wire figurines. While knowing more about the chosen species, they discover the trophic links among them, by creating a food chain.

Keywords

Brazil, Amazonia, Alexandre Rodrigues Ferreira, Indigenous, Arts and crafts

Table of summary

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| Subject | Science, History, Geography, Art and Design, P.E., Storytelling |
| Topic | The age of empires |
| Age of participants | 12+ |
| Suitable setting for implementation | Museum multipurpose rooms, outdoor (area around 5x3m), online |



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| Activity time | 135' |
| Online educational material | <p>Alexandre's philosophical journey Hopscotch of Alexandre's philosophical journey</p> <p>Amazonian's indigenous Movie - Munduruku identity and today's challenges of living in the Amazonia Concentration (card game)</p> <p>Amazonian's biodiversity Movie - Amazonian wildlife Movie - 4 tips wire modelling Animal wire figurines Dichotomous tree</p> <p>Quiz final quiz - Kahoot</p> |
| Offline educational material | <p>Alexandre's philosophical journey chalk, small stones or coins</p> <p>Amazonian's indigenous Concentration cards Print (see online educational material)</p> <p>Amazonian's biodiversity Prints (see activity), paper, pencil, eraser, galvanized steel wire D0,7mm, diagonal pliers, cork stopper to support the animal wire figurines (optional)</p> |

Europeana resources
used

Amazonian's indigenous

Munduruku

Objects: *Weltmuseum Wien*

[Photo 1](#) ; [Photo 2](#) ; [Photo 3](#) ; [Photo 4](#) ; [Photo 5](#) ; [Photo 6](#) ; [Photo 7](#) ; [Photo 8](#)

Mura

objects: *Världskulturmuseet*

[Photo 1](#) ; [Photo 2](#) ; [Photo 3](#) ; [Photo 4](#) ; [Photo 5](#) ; [Photo 6](#) ; [Photo 7](#) ; [Photo 8](#)

Ticuna

objects:

[Photo 1](#) *Royal Botanic Gardens, Kew*

[Photo 2](#) *Världskulturmuseet*

[Photo 3](#) *Världskulturmuseet*

[Photo 4](#) *Världskulturmuseet*

[Photo 5](#) *Världskulturmuseet*

[Photo 6](#) *Museon*

[Photo 7](#) *Världskulturmuseet*

[Photo 8](#) *Världskulturmuseet*

People

[Photo 9](#) *Världskulturmuseet*

[Gallery with the selected indigenous objects](#)

Amazonian's biodiversity

Animals: *National Museum of Natural History - University of Lisbon*

[Gallery with the selected illustrations](#)

[Painting 1](#) ; [Painting 2](#) ; [Painting 3](#) ; [Painting 4](#) ; [Painting 5](#) ; [Painting 6](#) ; [Painting 7](#) ;

[Painting 8](#) ; [Painting 9](#) ; [Painting 10](#) ; [Painting 11](#) ; [Painting 12](#)

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Integration into the curriculum

It the school curriculum it reaches English key stage 3 and 4, and Portuguese 2º ciclo of basic learning.

Participants will explore the Amazonia’s biodiversity and the interdependence of organisms in its ecosystem. They will master the art of representing in 2D and 3D through the creative process that precedes the creation of animal action figurines. Becoming an integral part of Alexander's philosophical journey, they will travel back in time to the age of empires and the era of European and American voyages of scientific exploration. On the other hand, the outdoor activity will present intellectual and physical challenges that should drives them to better understand the natural and cultural heritage that Amazonia represents.

Aim of the educational activity

Amazonia is part of everyone’s natural and cultural heritage.

Outcome of the educational activity

Participants will learn that Alexandre Rodrigues Ferreira was a Portuguese naturalist that made a philosophical expedition to Amazonia in 1783-1792.

The expedition had among other objectives the identification of the biodiversity of this tropical ecosystem, as well as to make known some indigenous peoples that inhabit it.

This ecosystem embodies a community of living beings, people and water resources that are interconnected. However, it is currently threatened in several ways, so it is urgent to continue its exploration to better preserve it.

21st century skills

- Scientific and cultural literacy – Zoology and food webs, Animal dichotomous key, Ethnographic and indigenous objects, Alexandre Rodrigues Ferreira philosophical expedition to Amazonia in 1783-1792.
- Social and cultural awareness – Human biodiversity and traditions.
- Critical thinking and problem-solving - Hopscotch, Concentration (card game), food webs.
- Creativity - Creation of animal wire figurines.
- Curiosity – Amazonia natural and cultural heritage.
- Communication and Collaboration – Game based learning.

Activities

| Name of activity | Procedure | Time |
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| <p>Alexandre's philosophical journey</p> | <p>In this activity they will learn about the Alexandre Rodrigues Ferreira's philosophical expedition to Amazonia in 1783-1792.</p> <p>It consists of a Hopscotch in an outdoor court around 5x3m. It has six numbered squares (1,2,3,4,5,6) representing expedition's objectives and a first single square named "Belém (Pará)" where each round starts and ends. This game has six rounds. Each round represents a journey made by Alexandre Rodrigues Ferreira, fully symbolizing the real itineraries of his expedition.</p> <p>Just draw the Hopscotch on the floor using chalk.</p> <p>Each round is played at a time, in ascending order, moving on to the next objective. In each round the player (named explorer) must reach and return from the respective square objective number. Single squares must be hopped on one foot, except for the "Belém (Pará)", where either foot may be used. As the rounds progresses, there are markers (typically a small stone, coin, etc) that are randomly placed in squares of certain rivers, which cannot be stepped on. They symbolize the dangers that this tropical ecosystem faces (severe drought, dam, mining, poaching, deforestation, etc.). These markers remain in the squares until the end of the game, and you should always avoid falling into them. If this happens, the explorer loses and does not play again. The objective is to verify that as the expedition advances, the number of explorers decreases as the number of dangers increases, making it difficult to finish the expedition. Whoever manages to go through the six rounds can be called a courageous explorer just as Alexandre Rodrigues Ferreira and his crew.</p> | <p>30'</p> |
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| <p>Amazonian's indigenous</p> | <p>In this activity they will learn about three of the Amazonian tribes that <u>Alexandre Rodrigues Ferreira came across during his philosophical expedition: Ticuna, Munduruku and Mura.</u></p> <p>Introduction (5'): To introduce the Amazonian's indigenous, participants start to see a small clip about "Munduruku identity and today's challenges of living in the Amazonia".</p> <p>Card game (10'): Now that they know the indigenous reality, they are going to meet the tribes. For this, we will use the Concentration (card game) as a metaphor. We know that the tribes are there, represented by the playing cards, but we do not know their whereabouts and what they represent. Cut out the cards from the given print.</p> <p>It can be played in a group or solo. All the 54 cards (24 objects + 3 people pairs) are laid face down on a surface and two cards are flipped face up over each turn. The object of the game is to turn over pairs of matching cards. Matching cards are removed from the game when paired and grouped according to its colour. Each tribe has its one card colour: Ticuna (Green), and Munduruku (Red) and Mura (Blue). Each pair represents an object or an indigenous of a specific Amazonian tribe.</p> <p>Objects' identification (15'): After ending the Concentration, they try to identify the objects and infer its uses. They will confirm their hypothesis by searching it on Europeana and surfing on the web. This task is only completed after the correct identification of at least 1 object card for each tribe.</p> <p>The answers to this activity:</p> <p><u>Ticuna</u></p> <p>Drum – Puberty ceremony of the Ticuna people. Vessel: hanging bowl - Interior decoration. Quilts with associated casing that contains 31 pcs. poisoned blowpipe arrows – Hunting. Fish arrow – fishing. Head mask – Tribal ceremonies. Bag – handicraft to store items. Trumpet – music, religious rituals. Skulls Wall decoration - Interior decoration.</p> <p><u>Munduruku</u></p> <p><u>Headdress, belt, anklet, arm ornament, scepter - adorn in festive celebrations.</u></p> <p>Ritual head – normally trophies from enemy heads that were mummified and attributed magical powers. Signal horn, wind instrument – music, religious rituals, to beep and everyone already knew it was to get together, warn of attacks initiated by or against the Munduruku.</p> <p><u>Mura</u></p> <p>Container - store food or drink. Basket – store items. Necklace x2 – bijouterie. Arrow x4 – Hunting.</p> | <p>30'</p> |
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| <p>Amazonian's biodiversity</p> | <p>In this activity the participants will create animal wire figurines based on <u>illustrations made by the 'scratchers', José Codina and José Joaquim Freire, and the botanical gardener, Agostinho do Cabo, during Alexandre Rodrigues Ferreira's philosophical expedition.</u> The objective is to enrich their knowledge about the chosen species and their importance inside the tropical ecosystem.</p> <p>Introduction (2'): To introduce the Amazonian's biodiversity, participants start to see a small clip about the "Amazonian's wildlife".</p> <p>Animal wire figurine (30'): Each group or person chose an animal from the selected 12 illustrations. Everyone has two wires from 40 cm of galvanized steel D0.7mm. Use a diagonal plier to cut the wires. Firstly, they use one wire to represent the animal using just their hands. Normally people make the animal's outline and it took 3-5 min. Then display the clip named "4_tips_wire_modelling" and show the document "animal wire figurines " that have sketches and some examples of animal wire figurines. Using a sketch, they can better predict how to do the animal. The wire figurines shown are just one way to model the animal. The objective is to provide them some tools to make a more realistic animal figurine. It took 20 min. Use hands or a plier to model.</p> <p>Dichotomous tree (10'): Each group or person will identify all the species by looking for its common and scientific name in Europeana. Then fill with it the blanks at the end of the dichotomous tree. They can surf on the web to know better each animal species. They can use the animal wire figurines to help them remember the species.</p> <p>Food chain (10'): Now they must build three food chains. One chain with 3 trophic levels, other with 5 and a third one with 7. We will only use the 12 animals that were chosen from the illustrations. So, they are all consumers. The food chain describes who eats whom in the wild. Organisms in food chains are grouped into categories called trophic levels. These levels are divided into producers (first trophic level), consumers (second, third, and fourth trophic levels), and decomposers.</p> <p>You shall use your animal wire figurines when possible, to create a dynamic food chain.</p> <p><u>Example of answer:</u> 3 levels food chain – Pseudacanthicus hystrix > Acestrorhynchus falcatus > Anhinga anhinga 5 levels food chain – Pseudacanthicus hystrix > Acestrorhynchus falcatus > Anhinga anhinga > Serrasalmus rhombeus* > Ardea cocoi 7 levels food chain - Pseudacanthicus hystrix > Acestrorhynchus falcatus > Anhinga anhinga > Serrasalmus rhombeus* > Ardea cocoi > Panthera onca > Sarcoramphus papa</p> <p><i>*when the anhinga offspring fall into the river or if an adult is hounded, they can be eaten by redeye piranhas</i></p> | <p>60'</p> |
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| Quiz | A final quiz to see if they reach the LS aim: Amazonia is part of everyone's natural and cultural heritage. | 15' |
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Participants' feedback

Add here the method with which participants will be able to give you feedback and discuss the activity, if any is foreseen.

Educator's remarks

Below some tips to implement this activity online:

- Alexandre's philosophical journey**

Each person draws his own Hopscotch.
- Amazonian's indigenous**

Each person prints and cuts out his own cards to Concentration.
- Amazonian's biodiversity**

The educator buys the wire and cut out it for the participants. Then, deliver the wires days before or leave it in a predefined location to be collected. These wires are easily found in bricolage stores or florists.

About the Europeana DSI-4 project

[Europeana](#) is Europe's digital platform for cultural heritage, providing free online access to over 53 million digitised items drawn from Europe's museums, archives, libraries and galleries. The Europeana DSI-4 project continues the work of the previous three Europeana Digital Service Infrastructures (DSIs). It is the fourth iteration with a proven record of accomplishment in creating access, interoperability, visibility and use of European cultural heritage in the five target markets outlined: European Citizens, Education, Research, Creative Industries and Cultural Heritage Institutions.

[European Schoolnet](#) (EUN) is the network of 34 European Ministries of Education, based in Brussels. As a not-for-profit organisation, EUN aims to bring innovation in teaching and learning to its key stakeholders: Ministries of Education, schools, teachers, researchers, and industry partners. European Schoolnet's task in the Europeana DSI-4 project is to continue and expand the Europeana Education Community.

Annex

Alexandre's philosophical journey

- What is a [Hopscotch?](#)

Amazonian's indigenous

- What is a [Concentration \(card game\)?](#)

- Ticuna*

<https://www.galeria-arf-acad-ciencias.pt/adornos-e-aderecos/>

<https://pib.socioambiental.org/pt/Povo:Ticuna>

<https://pt.wikipedia.org/wiki/Ticunas>

- Munduruku*

<https://www.galeria-arf-acad-ciencias.pt/musica/>

<https://pib.socioambiental.org/pt/Povo:Munduruku>

<https://pt.wikipedia.org/wiki/Mundurucus>

[Painting 1](#) People: *Instituto Hercule Florence*

- Mura*

<https://www.galeria-arf-acad-ciencias.pt/armas/>

<https://pib.socioambiental.org/pt/Povo:Mura>

<https://pt.wikipedia.org/wiki/Muras>

[Painting 1](#) People: *Arquivo Nacional (Brasil)*

Amazonian's biodiversity

- What is a [food chain?](#)

*all are Portuguese sites, but some have their English version or just use the google tools to traduce it.