

## PALEOART EXHIBITION: SCIENCE, ART AND AN ESSAY ON THE COURSE OF BIOLOGICAL SCIENCES AT UVA

# EXPOSIÇÃO DE PALEOARTE: CIÊNCIA, ARTE E UM ENSAIO NO CURSO DE CIÊNCIAS BIOLÓGICAS DA UVA

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#### **RESUMO**

O conhecimento científico proporcionado pela paleontologia, aproveitado no potencial didático, comunicador e de inovação da paleoarte é utilizado neste trabalho que objetiva a construção de uma exposição com trabalhos realizados ao longo de uma década pelo Laboratório de Paleontologia da UVA. Neste ensaio artístico-educador, as obras de doze alunos-artistas são expostas na Galeria Norma Soares do Memorial do Ensino Superior de Sobral, sob curadoria da equipe do Labopaleo/UVA.

### **ABSTRACT**

The scientific knowledge provided by paleontology, harnessed in the didactic, communicative and innovative potential of paleoart, is used in this work that aims to build an exhibition with work carried out over a decade by the UVA Paleontology Laboratory. In this artistic-educational essay, the works of twelve student-artists are exhibited at the Norma Soares Gallery of the Memorial do Ensino Superior de Sobral, curated by the Labopaleo/UVA team.

## **INTRODUCTION**

Fossils, objects of paleontology, comprise one of the elements of geodiversity and are included as Brazilian Natural and Cultural Heritage; commonly, they are used in

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Geoconservation and Sustainable Development strategies through Geotourism, leveraging their scientific, didactic, and fascination potential. The reconstruction of ancient environments that have disappeared is an artistic task (Paleoart) carried out in conjunction with scientists and constitutes a symbolic representation that contributes to the incorporation of paleontology into contemporary social and cultural consciousness (Gould, 1997). Artistic illustrations in paleontology practically aid in understanding the Earth's past through drawings, sculptures of past organisms, and digital resources based on scientific knowledge. With the evolution of technology, paleoartistic illustrations gain innovation, reality, and functionality. Therefore, they are excellent didactic and communicative resources to assist in conveying scientific content with a more dynamic and interactive language that seeks to attract diverse audiences, constituting an important element of scientific dissemination, especially in informal educational settings. The objective of this work is to present various artistic expressions developed by students of the Biological Sciences Course at the State University of Vale do Acaraú (UVA), within the scope of the Paleontology Laboratory (Labopaleo), over the past 10 years. In this work, paleoart will be addressed in the expressions of paleontography (sensu Conway et al., 2010) and paleontological illustration (sensu Davidson, 2008). Paleontography encompasses all forms of visual representations of paleontological hypotheses about the anatomy, biology, and ecology of extinct species, produced for scientific, pedagogical, or promotional purposes. Paleontological illustration refers to descriptive representations of fossils, respecting their metrics, proportions, and chromatic contrasts, and produced for scientific, pedagogical, or promotional purposes. The Labopaleo/UVA has been active in teaching, research, and extension in this decade at the undergraduate and graduate levels in the following thematic axes: education for geosciences; paleovertebrates (quaternary deposits of tanks and caves); paleoinvertebrates (Serra Grande Group, Parnaíba Basin); Paleontological Heritage (in situ and ex situ); and Geotourism. In addition, the research conducted contributes to the acquisition of a rich fossiliferous collection from the Semiarid region, which requires curatorship actions for the collection and exhibitions (temporary and itinerant). Many extension activities involve schools in the region and the collections of the Dom José Museum and UVA. Discourses involving museums, collections, universities, and heritage are intrinsic and inseparable (Figueiredo et al., 2021 cited in Lima & Carvalho, 2022). The diversity of materials present in a fossil collection



poses particular challenges to curators that require innovative solutions, thus, an exhibition of paleoart involving individuals in training as actors and the university environment (Memorial of Higher Education in Sobral – MESS) as a stage was conceived.

#### **MATERIALS AND METHODS**

The artworks for the exhibition were created over the past ten years by students of the Biological Sciences Course at UVA in activities carried out at Labopaleo, with most of them being stored and/or used in fossil exhibitions and scientific publications. Today, they are part of the laboratory's collection, totaling four sculptures (miniatures), one diorama, one painting, and ten drawings that served as the inspiration for this collection in a special and unique exhibition to showcase these specimens. Current students were also able to submit new works of various artistic expressions to exhibit during the event, contributing up to 10 productions of their own with different themes within the paleontology field.

The UVA Paleoart Exhibition was organized by the Labopaleo team (undergraduate and graduate students) using curatorial methods, essential to ensure the preservation, maintenance, provision of interpretation elements, acquisition of new pieces, and standards for safe use and exhibition of the collection. Curators were required to have specific scientific knowledge about what was exhibited, but in some cases, the way of doing the work could also be expressed artistically, sensitive to how curators projected the outcome.

The Paleoart Exhibition is on display at the Norma Soares Contemporary Art Gallery at the Memorial of Higher Education in Sobral (MESS/UVA) from February 5th to March 31st and will be part of the activities during the VI International Semi-Arid Forum (February 19th to 23rd). This art show was collaborated with by the Pro-Rectorate for Extension and Culture (PROEX/UVA) and executed/curated by the Labopaleo/UVA team.

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## RESULTS AND DISCUSSION: THE UVA PALEOART EXHIBITION

The Norma Soares Contemporary Art Gallery, where the exhibition was housed, is an annex to the Memorial of Higher Education in Sobral, built to take advantage of natural light and ventilation, with easy accessibility and availability of bathrooms and water.

The Paleoart Exhibition brought together twenty-six works, including the following artistic expressions with paleontological content (Fig. 1): sixteen drawings/paintings, four cordels (literary pamphlets), two videos (short films), four sculptures (miniatures), and one diorama. In some cases, dramatization was used as a communication strategy. Based on these expressions (in the order mentioned), the exhibition was organized in a vectorial path following the gallery's format.

The theme of the works encompasses various geological periods (from the Proterozoic to the Cenozoic) in ancient landscapes involving various groups of organisms, but primarily animals.

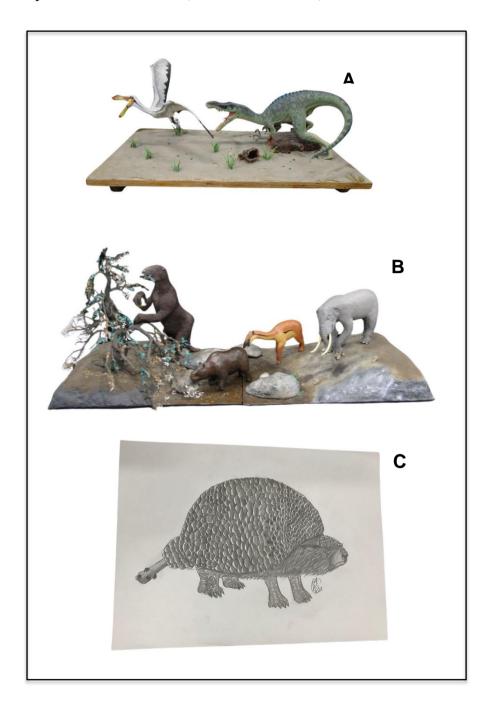
The drawings were made with graphite on paper, in black and white, but some were hand-painted and/or digitally enhanced, depicting anatomies and details of extinct organisms (paleontological illustration) such as dinosaurs and megamammals, as well as scenes of survival struggles (paleontography); one of the drawings was made on concrete bricks. The cordels were presented on clotheslines, containing only texts without illustration, addressing themes of the Paleozoic, Mesozoic, and Cenozoic eras. The two videos were created for the Evolution discipline and obtained the maximum grade, both addressing the Cenozoic Era. The sculptures were created by a single artist in biscuit on wood and automotive paint, depicting Ceará landscapes from the Mesozoic and Cenozoic eras. The diorama was constructed during a visual arts training supervised by artists Regina Raick and Roberto Galvão.

Twelve students, during their undergraduate studies, participated in the construction of the paleoartworks: Aled Gomes Lopes, Brendo Pessoa, Caroline Brito Oliveira, Francisco Danilo Paula Sales, Francisco Gabriel Rodrigues, João Victor Paula Moreira, Josilayne de Fátima Souza Mendes, Leonardo Rodrigues, Lucas Fernandes, Luiz Henrique Ximenes, Thallysso Matias Magalhães, and Wellington Araújo.

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This activity reached the sensitivity and artistic vocations in the scientific initiation of future licensed biologists and bachelors, clearly demonstrating the contribution of the arts to citizenship formation, education (formal and informal), and scientific dissemination



**Fig. 01** – Some artistic expressions from the Paleoart Exhibition: A. Reconstruction of the Cretaceous in the Araripe region (biscuit sculpture; Author: João Victor Paula Moreira); B. Pleistocene reconstruction in the Irauçuba region (miniature biscuit sculpture; Author: João Victor Paula Moreira); C. Reconstruction of a giant armadillo (graphite on paper; Author: Francisco Gabriel Rodrigues).



## FINAL CONSIDERATIONS

Scientific information disseminated widely to society is an important tool in the development of science itself. Paleontology is a science that allows the contemplation of deep time in the imagination of research into the past and vanished landscapes. The UVA Paleoart Exhibition made scientific information available to society in general, transmitted through various artistic expressions (drawing, painting, literature, video art and sculpture). This work contributed to the involvement of undergraduate students in Biological Sciences with the arts, strengthening the role of Labopaleo in human training and extension activities.

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