

Chapter 6

The Journey to the Center of the Earth

ABSTRACT

The “Journey to the Center of the Earth” project is a mental investigation about the interior of the Earth intended to encourage the reader to conduct an experiment in thinking and communicating with the use of visual language. Inspiration for this project comes from the theme of the interior of the Earth and some literary connotations. The challenge is to go on an imaginary trip in a transparent, pressure, and temperature resistant elevator descending to the center of the Earth, visualize its core, and make visual and verbal notes from the trip. Pictorial and verbal presentations are integrated with the physical geology-related concepts, events, processes, language arts, and connotations pertaining to cellular biology. The project is also about our awareness of the dynamics, forcefulness, and fragility of the matter under the ground we are living on.

INTRODUCTION

According to the leading objective of this book, the “Journey to the Center of the Earth” project is a mental investigation intended to encourage the reader to conduct an experiment in thinking and communicating with the use of visual language. The following text will involve creating a model intended to visualize the Earth structure. Queries about the physical geology of the Earth, its structural features and dynamical processes are aimed at providing a background to a nature-inspired work. A graphical model enables easy

recognition of the whole structure that is broken into simpler forms and then presentation of it in a pictorial way.

A work “No Man, No Shadow” (Figure 1) is a personal interpretation of geological formations communicated in visual language. This is an account of conquering distance, with an experience described by T. S. Eliot in “Little Gidding,” Either you had no purpose, or the purpose is beyond the end you figured and is altered in fulfillment. At the same time, what is seen in the surroundings brings back an association to one’s mind: rhythmic patterns in nature remind us of a perfection of the computer algorithms.

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Figure 1. Anna Ursyn, “No Man, No Shadow” (© 1989, A. Ursyn. Used with permission)



BACKGROUND INFORMATION

This distinctive imaginary adventure can only be done after completing some queries to recall our knowledge derived from science, art, and graphics. To be ready for working on this project, it would be helpful to bring back into one's mind some facts and properties related to the physical geology – a study of Earth structures and materials, as well as processes and forces that change these structures; one can find this information online or in textbooks (for example, Plummer et al., 2012; Tarbuck et al., 2011).

Mining for information may include themes related to rocks, minerals, and sediments, the composition and physical properties of the Earth's layers, its history and the natural processes that shape our planet by changing the makeup of the Earth over long periods of time. This knowledge tells about the nature of the Earth and gives us the understanding of the physical changes. It

may be useful as a stimulus to evoke your visual response in the form of your art graphics. When we analyze different types of Earth materials (such as rocks, soil, and minerals), we may recognize that rock layers and fossils hidden there provide the evidence of past life and tell how Earth has changed over long periods of time. Natural forces and processes, such as heat and pressure, are important factors that determine how the Earth's makeup has changed over short and then over long periods of time.

The Earth Layers

Figure 2 presents the structure, order, and density of the Earth layers with their depth and temperature changes on the 6,335 km (3,930 mi) long way down to the center. It shows what would we encounter if our imaginary elevator could go across real layers of the Earth.

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