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# From stones to rocks

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With the Aquila earthquake in 2009, earthquake prediction is more and more necessary nowadays, and people are waiting for even more accurate data. Earthquake accuracy has increased in recent times mainly thanks to the understanding of how oceanic expansion works and significant development of numerical seismic prediction models.
Despite the improvements, the location and the magnitude can't be as accurate as citizen and authorities would like.
The basis of anticipating earthquakes requires the understanding of:
- The composition of the earth,
- The structure of the earth,
- The relations and movements between the different parts of the surface of the earth.
In order to answer these questions, the Alps are an interesting field for students.
This study combines natural curiosity about understanding the predictable part of natural hazard in geology and scientific skills on site: observing and drawing landscape, choosing and reading a representative core drilling, replacing the facts chronologically and considering the age, the length of time and the strength needed.
This experience requires students to have an approach of time and space radically different than the one they can consider in a classroom. It also limits their imagination, in a positive way, because they realize that prediction is based on real data and some of former theories have become present paradigms thanks to geologists.
On each location the analyzed data include landscape, core drilling and the relation established between them by students. The data is used by the students to understand the meaning, so that the history of the formation of the rocks tells by the rocks can be explained.
Until this year, the CBGA's perspective regarding the study of the Alps ground allowed students to build the story of the creation and disappearance of the ocean, which was a concept required by French educational authorities. But not long ago, the authorities changed their scientific expectations. To meet the requirements of educational authorities, the reflection of the president and vice president of the association and some other high school teachers will help with the evolution and progression of Wegener's theory.
I will present to you how the examination of clues found in different areas of the Alps will be taken by the students to reconstitute the evolution of research begun by Wegener in the early 1900s for the understanding of the oceanic expansion. Moreover this experience reinforces the scientific mindset of the class, as well as, what they see originally as an ordinary rock will become a precious rock of scientific significance.