## Building stones as an introduction to geoscience

## \*Mutsuko Inui<sup>1</sup>

1. School of Science and Engineering, Kokushikan University

Demand for outreach activity seems increasing nowadays. We actually have a lot of opportunity to talk to high school students or common people. Very little number of students in Japan learn about earth science in high schools, especially not if they desire to study science or engineering in the university, because of the entrance exams. Physics and chemistry are the more important subject they study during the high schools. Earth science is a kind of applied science and it is considered that there is no time for the science and engineering students to learn application. To maintain the field, it is essential to let as many students as possible know about the earth science. We must invite young students to earth science, to ensure that our investigation to earth becomes sustained and develops to benefit our future.

Stones are handy for outreach activity indoors. It is not always possible to take people outdoors for just a short outreach lecture. Stones are used almost in the raw, so it is easy to imagine how they occur on the surface of our earth even in hand samples. Stones are also popular "natural" material and the samples are touchable. Stones are durable and have no need to care, so they are easy to maintain and very handy to manage.

The advantage of using building stones is that they have many different aspects that different people can be interested in: architectural material, jewelry, fossil, volcano, stone carving.

Even if the stones are handy to touch and explain indoors, seeing them indoors is far less spectacular than seeing them in the field. It is good if you have experience of field trips in geology. Another drawback of building stones as outreach material is that the stones are just raw material to process for stone industry people. Stone industry people are sensitive to how stones can be attractive, or how it can be sold expensively, or how the material is damaged. Things are often economical and political, that it is sometimes difficult to talk about pure science.

Keywords: tombstone, marble, case study