

Hello. I am Marina Pantazidou from the Civil Engineering School of the National Technical University of Athens. Welcome to Soil Mechanics.

Say that someone asks: Does Soil Mechanics have something worth teaching to everyone? I would answer: Yes, it does! What happens when soil compresses.

I develop my answer in three parts, three short lessons, and a summary. I prepared the lesson for high-school students, for our students and for all of you who like to understand.

In Part I we see soil compressing because we constructed a building. “The building has settled”, we say. We also see what is different when the soil is sand or clay.

In Part II we see a related problem: what happens when we pump water from our well, that is, from the soil. Soil compresses again. These two problems, loading the soil with a building, on one hand – pumping water, on the other hand, may seem unrelated. But, because they have the same result, they help us understand the mechanism of compression.

Finally, in Part III, we see how Soil Mechanics can give a quantitative prediction of soil settlement. How large is it going to be, you think? A few centimeters? Many centimeters? A few meters? It is good to make a note now of your guess. What seems more probable. Our students learn how to make this calculation in the second year of their studies – it is also a good problem for the final exam. See you in class!