Geopolymer Camp 2018

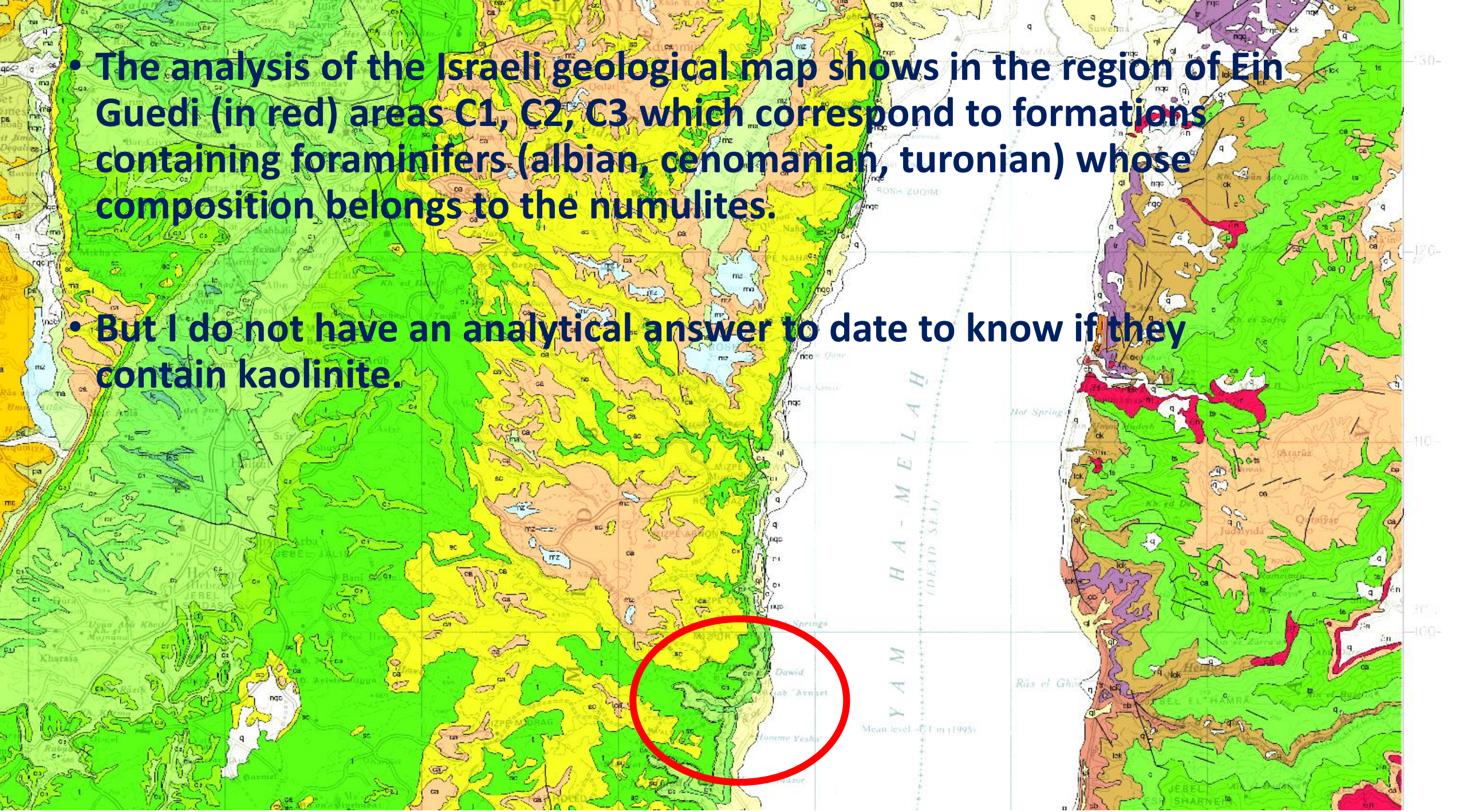
In search of lost geopolymers

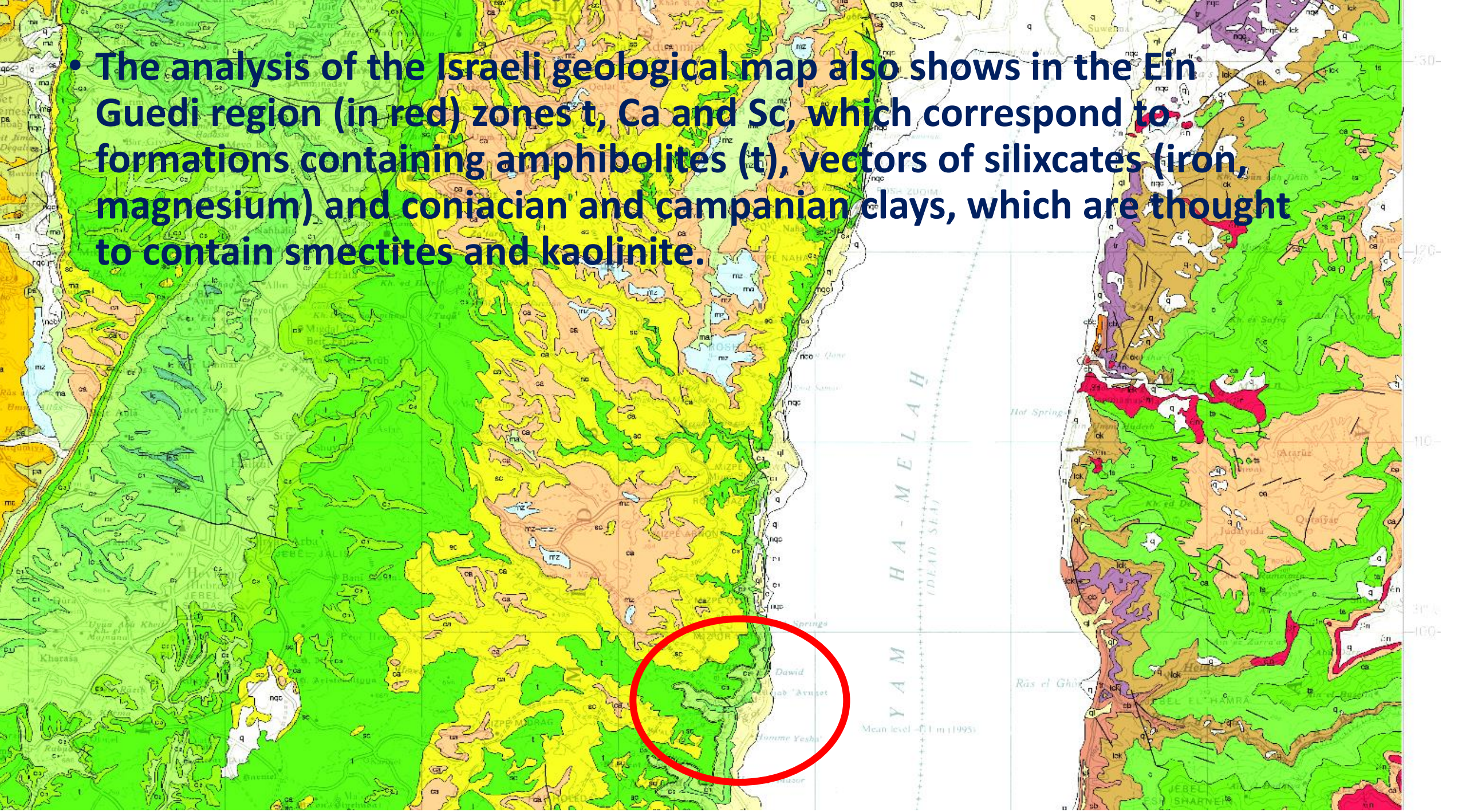
- It seems undeniable today, in the light of the research initiated by Professor Joseph DAVIDOVITS, that the genesis of the science of geopolymers finds its origin in the technical knowledge and initiations found in Egyptian Hebrew and hieroglyphic narratives.

- The object of my research was to find in the region the places where we could find natural geopolymers that could serve as a model for their reproduction by mimicry of Nature.

- To concentrate the research, it was necessary to find sites which could contain at the same time silicates, phosphates and limestone which could contain kaolinite or carnalite.

- The most suitable place to concentrate minerals from such diverse origins is on the shores of the Dead Sea.


• The analysis of the Israeli geological map shows in the region of Ein Guedi (in red) areas C1, C2, C3 which correspond to formations containing foraminifers (albian, cenomanian, turonian) whose composition belongs to the numulites.
• But I do not have an analytical answer to date to know if they contain kaolinite.



- The analysis of the Israeli geological map also shows in the Ein Guedi region (in red) zones t, Ca and Sc, which correspond to formations containing amphibolites (t), vectors of silixcates (iron, magnesium) and coniacian and campanian clays, which are thought to contain smectites and kaolinite.

- There is therefore on this basin the sufficient and necessary ingredients to obtain a genesis of geopolymer: silicates + kaolinite + alkaline reagents, the latter may come from salts dissolved in the Dead Sea at the time of the formation of the sites whose images we will see in the following slides.

- These images were taken in May 2017. The site is located in Ein Guedi, on the way to the springs and waterfalls that flow to the Dead Sea.

first sight of conglomerates of pebbles and rocks engulfed in a geopolymer mixture

Detail of the rock visible from the path: we can see the pebbles rolled from the plateau taken in the geopolymer cement.

Another example of concrete formed of rolled pebbles (mountain pebbles) driven by the floods, and agglomerated by the "glue" geopolymer,

Based Landslide (alluvial fan), I conducted samplings for analysis

In this image, we clearly see the negative footprint (top) the difference in material between the stones and the cement that sintered them.

- In conclusion,

- Subject to the analyzes of the samples, it seems that the surroundings of the Dead Sea was the site of the first observations of this geological phenomenon, and the space of research (probably by mimicry) to reproduce it.
- The Egyptian sacred texts, according to the long and fruitful experience of Professor DAVIDOVITS, transmitted this know-how, as secrets were transmitted in the past: in secret and coded form.

- Yet from Abraham to Solomon this knowledge has been kept and passed on. It is also a beautiful and long story ...

- Mission carried out in March 2017 in Israel (Dead Sea and Negev)
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