

## Solar Building Speech (David Faiman, 21.5.14)

President Rivka Carmi, President of the French Associates, Gerard Worms, Dean Pedro Berliner, respected colleagues and very dear guests.

I am overawed to be standing before you all on an occasion such as this. When first I joined Ben-Gurion University, thirty-eight years ago, it was a literal reaching-out into the wilderness to try and create something useful out of the years of theoretical physics I had worked on hitherto. This opportunity was given to me by Professor Amos Richmond, the founding father of the Blaustein Institutes.

Amos told me that if we can use science to solve the problem of how to enable people to live comfortably and productively in the desert, then we shall not only have created a place for our own people - should the Soviets ever release them - but we shall at the same time have solved the world's problem of evermore crowded cities. Inspiring words indeed! Words which not only captured my heart, but also the hearts of my generation of young scientists, each coming from what Amos considered to be a relevant discipline. And if Amos's words had not been enough, there was the awe-inspiring view over the biblical Wilderness of Zin, and Ben-Gurion's grave to remind us of the longer-term vision for our people: One that extends into the future from a very distant past.

There is a saying that "All beginnings are hard". But for us, the founding generation, after having savored the "Fleshpots" of fully-developed universities in various parts of the world, the challenge of working in pre-fabricated shacks and having to improvise all manner of pieces of equipment for our experiments lent a kind of thrill to our efforts that is hard to put into words. Even the pot-holed, one-track road between Beersheva and Sede Boqer, and the one-bus-a-day, each way, could not remove the conviction that this at last was meaningful science.

Those difficult conditions began to change when dear Michael Sonnenfeldt decided to erect the first "real" building on this campus, and persuaded his dear friend Corinne Evens to build us a magnificent auditorium. From that moment on, the Sede Boqer campus started to "look like" a serious scientific establishment - something our pride always led us to believe that we were – but, as you know, "Appearances are important" too, for they encourage others to put up magnificent buildings.

Michael donated his solar research building at a time when most of our solar research was of a mainly theoretical nature, coupled with outdoor field experiments. We did not foresee a time when we would also need proper indoor laboratory facilities. For this reason, those of us whose work was heavily dependent on outdoor measurements remained in our shacks, and continued using our improvised equipment. There we would have remained to this day had it not been for Professor Rivka Carmi.

Rivka visited us some five years ago and was utterly appalled that Ben-Gurion scientists should be working under such conditions. Perhaps it helped that she was a physician and could readily understand the meaning of a "clean room" – something my colleague Professor Katz was trying to improvise in a hand-me-down glove box we had inherited from the Chemistry Department. Rivka apparently vowed, then and there, not to rest until she had provided us with not only a proper clean room, but also a proper building in which to put it!

She called upon her good friend, Gerard Worms in Paris, who decided that no less a venue than *le Palais de Versailles* would suit such a fund-raising mission! And who do you think was the first to respond to Gerard's call? None other than our dear friend Corinne Evens again! And that was the start of how this beautiful building came into being.

Paradoxically, this major boost to solar energy research has come at a time when much of the world seems to be losing interest in renewable energy sources. In Israel, we now have off-shore gas and the USA has discovered how to "frack" – as they call it - vast amounts of gas and oil from local sources that were hitherto unavailable.

However, if this newfound fossil fuel will seemingly improve the security situation of these two countries, its use will continue to pump carbon dioxide into the atmosphere and promote the increasing contribution of that gas to global warming. If I may be permitted to mention two numbers: The content of atmospheric carbon dioxide increased by 16 billion tonnes in 2012, whereas that year's fossil fuel consumption emitted 35 billion tonnes of the gas: Twice as much! Plant growth and the oceans are Mother Nature's traditional sinks for surplus carbon dioxide, but when we are emitting such huge quantities, these sinks are simply not large enough. So the atmosphere is the only other place for it to go – and bang goes the weather (among other things!)

And so dear friends, if scientists at other universities are hurriedly running after new, more lucrative areas of research funding, we at Ben-Gurion will just have to increase our efforts to develop a solar alternative to the madness of fossil fuel. This will be possible thanks to the scientific talents of a whole new generation of brilliant scientists and this wonderful building that Rivka's vision and your efforts have created.

Therefore, please accept the thanks for your efforts, dear Gerard, dear Corinne, and all who have joined you. I convey these thanks in the names of countless generations of children yet unborn. And to *all* of you: Do continue your support efforts for solar energy. The journey is still a long one, but as this not-so-young professor and all of his young colleagues can assure you, it is an exciting one!