

The Oil Drum: Campfire

Discussions about Energy and Our Future

The church, the peak, and my old watch

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The old pocket watch that I used as a prop for my talk on peak oil to a group of elderly people in a countryside church. It was made in 1946 - the date and the name of the owner are still engraved on the back.

When I arrive, the friend who has invited me tells me that he is sorry, but the room where they usually have these meetings is not available today. So, they have arranged my talk in the church. Will that be all right? I say that it will be all right, of course. It will be the first time I give a talk in a church but, why not? So, my friend takes me inside, where they have arranged the benches in a semi-circle. I will be speaking standing in front of the altar; as if I were giving a sermon. But, again, why not?

As I stand there, people start arriving. Not that I expected a crowd, but it is a sizeable number for a small countryside parish: about 20 people. I didn't expect to see anyone young, either; after all it is a Saturday afternoon and the young people have other things to do than to listen to my talk. Myself and my friend are the only ones in their 50s, it seems. Most of the others seem to be well in their 70s or even in their 80s. Old couples, several old ladies alone. My friend had alerted me: they are people of the parish who have formed this group where they try to learn about energy and sustainability. They are also cultivating a vegetable garden on the parish's land.

Before we start, the priest comes to greet us. He thanks me for having accepted the invitation and he says that we should say a little prayer before starting. I think that the last time I prayed in church must have been when I was - perhaps - twelve years old. But I can't think of a reason why I should not join. We all hold hands together, in a circle, and we say a *Pater Noster* .

And here I am, in front of these good people. There is no way to show them slides and - even if there were - it would not be the way of speaking to them. Clearly, they are not interested in long lists of oil reserves or in details on future production. But I had suspected what I was going to face and so I am prepared. I take up the old pocket watch that I had taken with me. I show it to them. "It is an old watch," I say. "It belonged to Swiss man. I know that because there is his name engraved inside. You see? " I open the watch, showing to them the engraving inside. "There is a name and a date. This watch was made in 1946."

I continue, "I never met the owner of this watch, but I know who he was. He was a Swiss industrialist who had a hat factory in Florence. He must have liked Italy, because he got old here and he died here; in the 1970s. But it was also because Italy was less expensive than Switzerland and the salary of workers was lower. Some things never change over time; companies go where workers cost less. So, my grandfather used to work for this man, and my aunt took care of him when he was very old and sick. This watch was, I think, a gift of this man to my aunt; and so I have it now. You see, it is a rare model. It has an internal alarm; it was not common at all to have this feature in a pocket watch. But the owner was a businessman and he probably travelled a lot and stayed in hotels. So, he needed a watch that was also an alarm clock. It is a nice object; I like it a lot and I use it sometimes, not very often because I am afraid of breaking it. But it still works very well."

I look around me. The old people seem to be fascinated. They are old enough to remember that kind of watch and the times when a watch was an expensive object. They are from a generation when you would get your first watch as a gift for the solemn occasion of your first communion.

I keep going. "These watches were not cheap at their time but you didn't need to be rich to have one. A friend of mine has one of these pocket watches that belonged to her grandfather. Not so fancy as this one, of course, but a good watch anyway. And her grandfather was a peasant of the *Appennini* mountains. He was not rich but he could afford a pocket watch. Today we think that a cheap watch is something that is made in China, costs very little and you throw it away after a few years, when you are tired of it. But are we sure that it is the way a cheap watch should be? What is that makes something cheap or expensive? Of course, it is the work that you need for making it and the materials that you need to make it. This watch that I have here doesn't contain expensive materials: it is only steel, glass and a little enamel, that's it. Its cost would be mainly for making it - paying the watchmakers, that is. So, it was expensive, especially if it was a bit fancy, like this one. But then it would last for a long time and so it made sense to make a little investment in something that you would keep for many years. Even a peasant could do it and this is the reason people had their name engraved on the rear of their watch. It was made to last."

They are listening. I know that they are thrifty and the idea of a watch that lasts a long time makes sense to them. I continue: "Now, think of a modern watch: it takes very little work to make it; it doesn't have all the delicate gears that are inside one of these old watches. But the problem is that a modern watch uses a lot of rare materials that have to come from far away. The battery, for instance, uses a metal called lithium that comes from Bolivia and it is rare. And there is a microprocessor inside, probably has gallium in it. Gallium is another rare metal - very, very

rare. There are no gallium mines; gallium is just an impurity of aluminium. And, for the display, you need indium - another rare metal. You probably never heard of these names, but we are using elements of which there is a very small supply on this planet. So far, they haven't been so expensive, but there is not an infinite amount of them. Then, of course, the case of the watch, the strap and other components are made in plastics which is made from crude oil. And to make a watch like this one takes energy. Energy comes mainly from oil and every time we throw away a watch, to make another one we need to use more energy and to dig out more rare materials. And this is a problem because there is not an infinite amount of stuff that we can dig out of the ground."

From then on, it is easy. They are fascinated by the story of crude oil and they listen with great attention when I tell them how it is found, extracted, transported, refined and transformed into many things; from fuel to plastics. I don't tell them much about peak oil; I just mention it in passing. But it is not difficult for them to understand that oil resources are not infinite and not even abundant any more. They were born in a world where nothing was really abundant; a world in which everything had to be used sparingly. I try not to scare them, of course. I tell them that they should try to make up their own minds; "Don't just trust me but try to see all what is happening in light of what I said. Don't you think that these difficult times we are seeing could be due to the fact that mineral resources are slowly running out?" They nod. It makes sense to them.

I look at the time on the old pocket watch: I have spoken for just a little more than half an hour. So far, I didn't see anyone sleeping or distracted, but old people tend to tire rapidly, so it is better to close. I finish my talk with some more considerations on mineral resources and there come the usual applause.

There comes the time for questions. They are a little shy, but a lady raises her hand. She is probably the youngest in the audience - in her early 60s, I'd say. She says "Professor, we enjoyed very much your talk and I can understand the problems you told us about. But, in practice, what should we do about it?"

I expected this question. I make a point not to tell people what they should do in my talks - not normally, at least. It think it is not so polite; I mean, who am I to tell other people what to do? But if they ask me, well, then I can give my opinion. So, I say, "You see, I speak sometimes to young people. For them, what I told you is very important and also very worrisome. They have to plan ahead for a world in which many things will not be so abundant as they had grown accustomed to. They will see enormous changes during their lifetime and they'll have to adapt to them, starting from scratch. In our case, well, we are not so young any more and we might tend to ignore these things. The world will change; sure, we see it changing already, but what we have done is done, and we can't restart from scratch. So, what can we do?"

I sort out again my old watch, "You see, this old watch is still working, more than 70 years after it was made. Whenever I look at it, I feel a kind of kinship to the man who left it to me. I am grateful to him because he left me something that still works, that I can use and that I like. And I think he may be happy, too, if he looks at us from above, that his old watch is still appreciated by someone in this world". I pause for a moment to look upwards, as if I were seeing the ghost of the old Swiss man. The people in the audience do the same. There is only the roof of the church, up there, but - who knows? - maybe the owner of the watch is really watching us from above.

I continue. "Now, for myself I think I would like to do something similar - to leave to those who

will come after me something that they may use, that will be useful to them. I would like to leave something that lasts a long time and that doesn't need precious resources that can't be replaced. Something 'sustainable' as people say. Of course, I am not saying that we should go back to this old way of making watches - although, who knows? - But, surely, there are things that we can make which are sustainable and that will last a long time. Think of a wind turbine; you have surely seen them. They are big mechanical things, mostly made out of steel; like this watch. If they are well kept and maintained, turbines they can last many decades, like this watch, and why not a century or more? And they can produce good energy for all that time. That is true not just for wind turbine. Solar plants can last a long time and you can insulate your home in such a way that it doesn't need much energy to heat or cool. If you do that, I am sure that the people who'll live in it after you will be happy about what you did. There are many big things that you can do if you are rich and many small things that you can do even if you are not rich. I am sure that you can think of something you can do, and if we leave this kind of things to our descendants they may forgive us for having misused so badly of the mineral resources of this planet." They all nod. They are thinking about what they can do. I can't say whether they'll be really able do something, but they might.

I finish my talk pointing at one of the windows of the church. I say, "and a vegetable garden is sustainable as well, as the one I have seen when I came here." They smile. One of the old men says, "Yes, we are cultivating it. The young ones don't care too much about it." I say, "They'll learn and they'll be happy that you left it to them." They all smile. Then we all leave for a snack in a room nearby; with food that comes from their garden.

Questions

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1. What can we leave to our descendants, that is sustainable?
2. Are there ways that we can build things to last longer?
3. Older folks and younger folks sometimes travel in different circles. Are there ways we can learn more from those with years of experience in gardening and other needed skills?



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