Wall Street, Climate Change, and What's Crazy: An Archeological Perspective on Change

By Scott Thompson

I.

"The reality is that most governments, strongly influenced by the fossil fuel industry, continue to allow and even subsidize development of fossil fuel deposits…[This is crazy because] Continued business as usual fossil fuel use will result in loss of all Arctic summer sea ice within the next several decades."

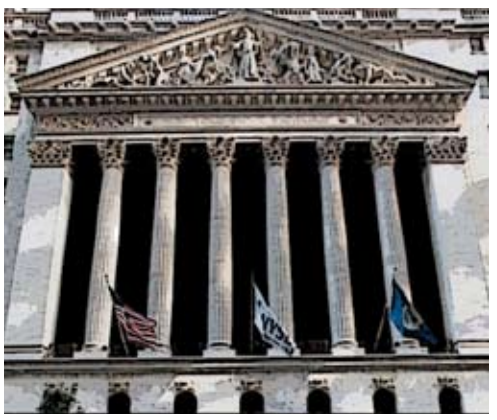
– James Hansen and thirteen other climate scientists, 2011

Yes, I added the phrase in brackets and no, it was not implied by the text as written. Pardon my bad manners, James.

I did that because allowing the summer Arctic sea ice to melt in conjunction with a sustained atmospheric CO2 level greater than 350 parts per million (ppm) is like playing Russian Roulette with five bullets in the chamber.

There are two reasons why such a comparison is apt. First, as long as the atmospheric concentration of CO2 is greater than 350 ppm, the atmosphere will continue to warm. And, because it's now at 390 ppm and climbing at 2 ppm each year, we're already locked into a sustained period of further warming, and *that* means that once the summer sea ice is gone, it's not coming back within any time period relevant to our species. Second, when the sea ice is gone, the dark ocean water that replaces it will absorb heat from the sun that the sea ice once reflected back into space—thus warming the ocean even more, every summer, in an escalating cycle.

Truth time now. I wonder if within institutional Wall Street there isn't a spreading concern that informed discussions of climate change might spook the markets into a downward trend.



CO2 figures so prominently as a greenhouse gas because, once it's emitted, significant portions hang in the atmosphere for a millennium or longer, continuing the warming. It's like sticking the world's ice sheets in an oven for a thousand years.

As everyone with an intact corpus callosum knows, what's generating ever more CO2 in our atmosphere is burning oil, coal, and natural gas, however derived, in addition to deforestation. Therefore, any government that subsidizes companies for producing these fossil fuels, especially oil and coal, especially when these companies are expanding their sources of extraction, is aiding and abetting a planet-wide process of self-destruction.

Enter a news story on page A3 of the May 12, 2011, edition of the *Wall Street Journal*, "Oil CEOs on the Hot Seat." While I don't normally read the *Journal*, I happened to see this one because the paper was free at the hotel where Gail and I were staying. The story was about an upcoming Senate Finance Committee hearing on tax breaks—government subsidies—for oil companies. Per the story, the oil industry claimed that 85.5 billion dollars in tax breaks over the next ten years would be on the table.

I thought, *"Son-of-a-bitch, am I reading this right? That our government is subsidizing oil companies to the tune of 8.55 billion dollars per annum* (maybe it's more if you include coal; I don't know!) *to produce the very greenhouse gas that has the crucial role in destroying the stability of the world's climate? That's crazy!"*

True enough, but that's not what was crazy about the story. What was crazy about the story, in my opinion, is that it made no mention of the fundamental relationship between these gargantuan government subsidies, the resulting price of fossil fuels, and the quantity of CO2 emissions. When the stability of your planet's climate is at stake, and when the story is about an issue central to the crisis, you need to add at least a brief comment tying the subject to climate change.

Yet I assume that the reporters who wrote the story thoroughly lack craziness. What I do suspect is that, like any good alcoholic's wife (or husband), they knew what not to say. For one thing, they probably understood that what their readers were interested in was tracking the fate of these tax breaks in order to gauge their effect on oil company profits. And, for another, I suspect that the paper's management has little or no interest in addressing climate change in a way that would be congruent with the best (as opposed to the most cautious) climate science.

Truth time now. I wonder if within institutional Wall Street there isn't a spreading concern that informed discussions of climate change might spook the markets into a downward trend. And I wonder if the silence I'm calling crazy—and, as far as the world's future is concerned, it is—isn't the manifestation of a tacit understanding to shut up about bad news, fueled by underlying panic.

In any case, the gist of the *Journal's* story was that Senate Democrats were about to grill various oil company CEOs on their corporate tax breaks. House Speaker John Boehner's remark was that erasing the subsidies would be "tax hikes [that] will raise gas prices, destroy jobs in this country and increase our dependence on foreign oil." Pointing out that this was a cynical comment is the kindest thing I can think of to say.

Now just because some Democrats were willing to grandstand about oil company tax breaks doesn't mean that those tax breaks will be eliminated or that Democrats are getting serious about climate change. To the contrary:"…the Obama administration approved a proposal by Shell to drill five new exploratory deep-water oil wells in the Gulf of Mexico, the second such approval for the gulf since the lifting of a federal moratorium on deepwater drilling last October."

Now that really shows you, because deep water drilling, and all the hazards that go with it, is one of a variety of ways the fossil fuel industry is expanding the scope of its exploration – the others being tar sands, oil shale, Arctic exploration, mountain-top removal coal mining, and hydro-fracking to enhance natural gas production. All perpetuate or at least risk ecological destruction on a scale heretofore unknown in order to suck out the last of the fossil fuels from the Earth; exactly what the eminent climate scientist James Hansen warned us we must NOT do if we want to live on a habitable planet.

II.

"…class divisions became a deep fracture line weakening the fabric of Chacoan society. The divisions were not unlike those between Wall Street and Main Street in the United States during the banking crisis and economic recession of 2008 to 2010."

– Archeologist David E. Stuart, 2010

But, for about 150 years prior to its collapse in 1130 CE, Chaco Canyon was indeed the power center of an economic system spanning the San Juan Basin

Chaco Canyon in northwestern New Mexico is a strange, stark place. Stippled with greasewood, threaded by an unremarkable seasonal wash, and framed by low, broken-stone mesas, the canyon doesn't seem the likely core of the most robust society in America prior to the Anglo-American juggernaut. But, for about 150 years prior to its collapse in 1130 CE, Chaco Canyon was indeed the power center of an economic system spanning the San Juan Basin, which fills up northwestern New Mexico and overflows into southwestern Colorado, southeastern Utah, and northeastern Arizona.

When Gail and I first visited the canyon in 2003, I couldn't stop photographing Pueblo Bonito. First built in the 800s by the Anasazi (properly called "the Ancient Ones" by their Pueblo Indian descendants), by 1115 it had expanded to include 33 kivas and nearly 700 rooms, roughly half of the latter devoted to storage. To explain the scale of this achievement, no larger apartment structure was built in North America until the 1880s. (See David E. Stuart, Anasazi America, p. 80). Its ruins, as preserved and shored up in spots by the U.S. Park Service, still radiate grandeur and power. I found myself gazing in reverential silence at the magnificent 11th and 12th century masonry, the deep, wide kivas, and the strange canyon walls. We've been to Pueblo Bonito twice now, and I've done some people-watching on site. Almost everyone I've seen there, whether Native American or not, regardless of their age and background, reacted in the way Gail

and I did.

It's a place that gets to you.

We know a good deal about the Chaco Anasazi culture now, thanks to the fine work of many Southwestern archeologists. The Chaco Canyon elites solidified their status and authority by solving a crisis throughout the San Juan Basin in the late 900s. Or, closer to the truth, they provided a partial solution and the climate did the rest. The problem they addressed grew out of the relationship between population growth and the resultant scarcity of resources, worsening over a long period of time.

From about 300-900 CE, the number of settlements in the region grew tenfold. Up until about 700, the small villages hugged mesas or mountains, so that when the intermittent rains faltered and crops failed, people could resort to hunting and foraging. They had a workable back-up system. But, after the population grew past a critical point, people began to settle on any land with rich soil and access to water, and so the back-up system fell away. On top of that, between 900-1100 the number of settlements increased tenfold again. The back-up system was not only gone; it was annihilated.

I can't help thinking there's a similarity between the kind of solutions the Chaco elites churned out in response to their massive crisis and the way our own elites have thus far responded to climate change.

When the rains failed in the late 900s, after the villages ran through all the corn they had stored, there was widespread malnutrition and violence broke out. The Chaco Anasazi took the lead by building roads and establishing a network of great-houses across the San Juan Basin, each of which contained multitudinous storage rooms—thereby setting up a trade system that included thousands of farmsteads across the Basin. Under this system, if a village's crops failed on a given year, there was a back-up supply. Now there was a true growth economy, based on trade, regulated by the Chaco elites, which allowed the population to continue to exponentially grow. Not unlike our own growth economy.

The Chaco elites also seem to have administered a highly structured system of religious rituals, performed in kivas at the great-houses, including those in Chaco Canyon. The ritual system and economic system reinforced each other, in much the same way conservative churches today avidly support the ideology of free market capitalism.

While the trade system did help re-establish stability, the truth is that the Chaco elites lucked out, because circa 1000 CE the rains stabilized for another ninety years. Not surprisingly, their system reached its peak of power and influence during this time.

Beginning in the late 1000s, however, the bills for exponential growth came due. Good fields that had been farmed for corn for generations began to lose their fertility. Meanwhile, people increasingly turned to farming marginal lands as the population continued to grow. Life became a fearful struggle for many. Then a drought hit in 1090. The elites responded by building more roads and great-houses, as they had done a century before. It must have seemed like the right solution to them, and it was surely backed up by their ideology and rituals. But, in the face of the more complex circumstances they now faced, it was a stereotyped, irrelevant solution. When a subsequent drought hit in 1130, their system fell apart and a generation of war and chaos ensued. (See the chapter "Power, Complexity, and Failure," in David E. Stuart's book, Pueblo Peoples on the Pajarito Plateau).

I can't help thinking there's a similarity between the kind of solutions the Chaco elites churned out in response to their massive crisis and the way our own elites have thus far responded to climate change. First, both the Chacoan and American honchos chose to ignore the actual dimensions of the problem they each faced, despite plenty of evidence on the ground. Second, their respective problems threatened their economic well being as well as their status within their respective systems. Third, both the Chacoan and American elites were only willing to implement off-base solutions that their respective ideologies told them were acceptable.

I guess we shouldn't be surprised. For the Chacoan elites, a workable solution would have meant dissolving their society altogether and telling their people to migrate elsewhere, namely the uplands surrounding the San Juan Basin, where they had a better chance of finding rain. And, for our own elites, a workable solution means accepting that rapid reductions in CO_2 emissions will change the way the economic system functions, especially its relationship to natural resources, and that their own place in the system, especially for those on Wall Street, will change as well.

What's different is that our own elites may still have some time to forestall a disaster.

But I'm not betting on their acumen.

Note - I quoted from James Hansen et al's thoughtful article, "The Case for Young People and Nature: A Path to a Healthy, Natural, Prosperous Future," pp. 2, 17, as found on Hansen's website,

http://www.columbia.edu/~jeh1/