

Constructions Notes - Responses

From a former Steel Association Executive comparing concrete to steel re emissions:

Fresh steel (made in blast furnaces) required two tons of CO₂ per ton of liquid iron, due to the fact that the Carbon from the Coke pulls the Oxygen off the ore (ferrous oxide) to create the pure iron. BUT the steel used in construction is typically made in scrap-melting electric arc furnaces with a much lower CO₂ emission, almost certainly lower than concrete. Because steel made in America has made a huge shift to electric arc furnaces (as opposed to China, e.g.) we can rightfully claim that the steel industry has already met even Kyoto standards for emission reduction. Serious research is being conducted to find a way to make coke-free virgin steel. But for now the only way to reduce blast furnace emissions is to make less steel. In that sense, the Chinese are helping with OUR climate objectives while making the world's climate picture worse.”

From a faculty colleague:

Your update made me think of this: “All America lies at the end of the wilderness road, and our past is not a dead past, but still lives in us. Our forefathers had civilization inside themselves, the wild outside. We live in the civilization they created, but within us the wilderness still lingers. What they dreamed, we live, and what they lived, we dream.” T.K. Whipple

From an archeology grad student in Sheffield, England (the home of Bessemer Steel)

I have never thought about sand like that and considering it is integral to building successful furnaces and molds, I now find the fact that we only discuss ore and clay sources in landscape resource procurement studies interestingly lacking. Also all the stuff on Blue Planet and Carbon Cure, was really interesting. I haven't heard of that before. I do, however, have two critiques. The first more minor one, why didn't you mention that your Mother-in-Law and Father-in-Law were married in the Cairo Hotel. It would have added a nice personal element. Two, why didn't you mention the recent discourse on the Anthropocene in the conclusion? It would have fit very well since a paper came out this summer noting that more than 30 different kinds of earth scientists have concluded that we now live in the first geological

epoch created by human action. The sand thing is literally blowing my mind right now.

From the Project Developer:

This is wonderfully informative and interesting, especially to an engineer/developer like me!