Housing and Cities

Back during our discussion of the generational aspect of the climate crisis, I drew attention to the fact that houses have been slowly supersizing during my lifetime. As I noted,

"In 1950, shortly before I was born, the average size of an American house was just under 1000 square feet. Today, the average size is over 2500 square feet – more than two and a half times larger, even though American families are now considerably smaller. And of course, as with so many things American, bigger is often perceived as better."

"Hence, if you can afford it, the ideal home is often much larger. One in five new houses in the US. is now, in fact, over 3000 square feet in size. One in ten is a McMansion, at over 4000 square feet. In contrast, a traditional Japanese home, which housed families of four or more, was one tenth that size at 400 square feet."

The ever-reliable Union of Concerned Scientists notes that 17% of the average American's carbon footprint comes from heating and cooling their homes. In addition, 15% comes from other home energy use, such as lighting and appliances. Suffice it to say that, at approximately a third when combined (32% to be exact), a large chunk of the average American's climate footprint comes from our homes.

Indeed, in terms of our personal climate footprints, only transportation (i.e. chiefly our cars and flying, at 28%) and our relentless acquisition of stuff (26%) rival our houses and their energy use as climate offenders. Though, let's be clear, they both fall short of houses.

Incidentally, as transportation, housing, and stuff (in that order) are responsible for 86% of our personal carbon footprints, it clearly points to where we need to personally direct our attention if we hope to mitigate the climate crisis. The remaining 14% comes from our food. Hence, while what we eat is certainly important (I would argue very much so), transportation, housing, and stuff are on average each more than twice as important.

Part of the problem with our houses, which is not reflected in that 32% figure from the Union of Concerned Scientists, is the embedded carbon in our homes. In other words, a ton of CO2 or equivalent gases is released when a house is built. Actually, about 80 metric tones are released to build a typical house.

This is the same problem that we encountered with the manufacture of a car.

However, with a house the situation is better, as they generally last far longer than the 11 years of an average car. Even if a house lasted "just" 80 years, which would be a relatively short lifespan for a home, and had just two occupants, that would work out to one half metric tones of CO2 per year. Of course, that would still be one quarter of each occupant's total annual carbon footprint, but it's still far better than the embed carbon in a car, which is four times as much when spread over its usable lifespan.

But keep in mind that we still have to contend with the fact that providing energy for that house (for heating, cooling, appliances like refrigerators, washers, dryers) takes 32% of the average American's carbon allotment. The problem here is that, as Americans expend over 16 metric tones of CO2 or equivalents on average, 32% of this works out to 5.2 metric tones per person. This jumps even more if we add in the embedded carbon.

Hence, the average American is expending over two and a half times their total annual carbon allotment on their homes – and, of course, this leaves nothing for food, clothing, transportation, and all the stuff that Americans love to acquire to fill our homes!

So, what's to be done? How exactly do we go about reducing this?

As with many issues related to the climate crisis, it is useful approach this as largely a cultural problem. Hence, while I definitely support actions like increasing home insulation and putting photovoltaic solar panels on your roof – and, in fact, my partner and I did both with our little old Santa Barbra house – this is not enough.

So, what, then, is to be done?

It is simple enough: Move to a micro-apartment or certain co-housing communities, as this can greatly reduce your climate footprint.

As I noted on in a previous lecture, "the good news for both transportation and housing is that there is a simple way to approach both: move to a city. City living can mean dramatically less car use (in Manhattan, only one in five people commute to work by car) and generally smaller, more efficient housing. Many cities have made major commitments to mass transportation and bicycle use…as well as micro-apartments."

Consequently, I want to focus on cities.

A majority, 55%, of human beings on the planet now live in cities. By 2050, that number is expected jump to over two thirds or more.

In order to take up cities and city life, I want to again consider Henry David Thoreau and his life on the shores of Walden Pond. This may seem to be an odd move, as Thoreau is probably best remembered for the two years of his life that he spent living on the rustic shores of Walden Pond – which was, as far as he was considered, as far from city life as possible while still staying close to his hometown.

However, as I suggested in the lecture on Walden, his important legacy for the 21st century is (at least as far as I am concerned) that he took a long hard look at his life with an eye to reducing everything unnecessary. In this sense, it is less important where he did this than the fact that he took up this personal, reductionist project.

Here is something to ponder: what would Thoreau's Walden experiment have been like had it not been conducted in its semi-wilderness setting, but an urban one instead? His profound

aesthetic appreciation of the scene would, of course, be different, but, in wholly practical terms, what would such a lifestyle be like?

In other words, what would a life of urban (rather than wilderness) simplicity be like? Given our topic today, I am primarily thinking of housing here.

In a variety of different places, in a range of different ways, people are not only asking this question, but taking up new lifestyles in reply. What's more, these are not isolated and quirky, but in many instances are mainstream efforts that are offered as models for us all with respect to housing.

In 2012, spearheaded by then Mayor Michael Bloomberg, New York City launched its adAPT NYC pilot housing program to encourage micro-apartments by fostering a competition for real-estate developers. In 2013, the winning design was announced, which consisted of a modular building with 55 units with floor plans between 250 and 370 square feet each.

Although this might seem a little large when compared to Thoreau's cabin, keep in mind that these units have bathrooms and full kitchens, which Thoreau lacked. Even so, as the larger apartments can be home to a couple, at 185 square feet per person these units are surprisingly close to Thoreau's ideal size for domestic simplicity, which was 150 square feet.

New York is not alone as a test bed for this movement, as Boston, San Francisco, and an exciting range of other cities are adapting zoning for apartments as small as 220 square feet each.

In many respects, the adAPT NYC and similar projects are squarely in Thoreau's rugged individualist tradition, which is a thoroughly American phenomenon. What I mean by this is that Thoreau lived alone – which is exactly how most Americans live: either alone or with their immediate family (i.e. with their parents or children). Consequently, each of our houses has a kitchen, a bathroom, a living room, etc. But must it be this way?

Co-housing, which is less common in the US. than in Europe (where, at least in a modern sense, it began around 50 years ago), challenges this individualist tradition. In a co-housing community, individuals and families can live in smaller housing units because they share services and amenities with others in the community. For example, members of the communities often share meals four or more times per week, which are cooked in a community kitchen.

(Incidentally, the documentary Happy has a very interesting section on co-housing in Denmark. Someone was kind enough to upload this section to YouTube.)

It is worth pausing to consider this global move toward cities as a form of environmental activism, as it can be seen as representative of a new kind of environmental thinking, which is profoundly different from what Thoreau advocated.

However, this new approach does resemble Thoreau's in one important respect, as an emerging group of environmentalists is increasingly prompted to direct and personal action, rather than

being content with merely speculating on our planet's future from the sidelines. Like Thoreau, they are engaged in a gritty experiment with real-life environmental consequences.

They are not, however, as with the back-to-nature movement of their parents and grandparents, following Thoreau's lead and retreating to the last scraps of American wilderness or expending a disproportionate amount of energy on its defense. To the contrary, many are going in the opposite direction by moving to different sorts of land, which many abandoned decades ago, such as cities.

For well over a decade now, a new wave of environmental activists has literally been greening cities. New York City's High Line and Paris's Promenade Plantée, both greenways fashioned from abandoned railways, have become icons of this movement, as have rooftop gardens, backyard chicken coops, and vertical farms.

These activists are not leaving the city for nature; they are bringing nature to the city, as the blended rural-urban lifestyle growing there is impacting a broad range of everyday practices. This movement is not limited to cities, but increasingly includes suburbs as well, where lawns are being replaced by vegetable gardens and municipal ordinances are being rewritten to allow livestock, like goats and sheep, to graze among swimming pools and tennis courts.

Although the growth of urban and suburban farming may seem trivial, even quirky and amusing, in some sense this movement overturns over 5000 years of thinking. Beginning with the very first works of Western literature, country and city (and, by extension, nature and culture) have been repeatedly imagined as not only mutually exclusive, but in opposition. In recent centuries, the country has nearly always been preferred, the city eschewed.

This attitude is alive and well in Thoreau, who, distressed by the growth of urban and industrial modernity, fled to what he imagined to be its opposite: the closest thing to nature he could find.

Now, however, a new wave of environmental activists is increasingly shifting its attention from nature untouched by culture, such as the wilderness of national parks and tropical rainforests (which preoccupied many environmental activists throughout the 20th century, sometimes to the exclusion of nearly everything else), to a vision of culture infused with nature – the merging of those ancient opposites: country and city.

Cities, among the most developed of all the places that human beings inhabit, are becoming test beds for the idea that culture can be far more natural than we ever imagined.

Thanks to works by Edward Glaeser, David Owen, and others, the idea of a "green metropolis" (Owen's phrase) no longer sounds like a contradiction. The formidable challenge is to green cities even further, which, as Glaeser and Owen argue, are already in many respects far more environmentally benign than suburbs and even most rural areas. Although at first glance counterintuitive, they compellingly argue that life in Manhattan is far greener than in Wyoming in a variety of ways.

The notion that cities can be green and natural may seem counterintuitive, debatable, or just plain wrong. It certainly may have seemed so to earlier activists, like Earth First! founder Dave Foreman, who two decades ago baldly declared that civilization inescapably creates a rift between human beings and nature.

His solution, which was among the most radical offered by his generation of activists, was to call for the protection of wilderness by nearly any means necessary – even if it required acts of eco-sabotage – from human development.

By contrast, this new group of activists is focused on areas already developed and inhabited by human beings, which cover far more of the earth's surface than the remaining remnants of wilderness.

If we hope to save the planet, which is now largely covered by cities, suburbs, farms, factories, and all sorts of other human works and projects, we need to turn our attention and energies to these places.

This shift in focus reveals just how much environmental activism is changing. Eco-sabotage (and more benign tactics deployed by moderate back-to-nature environmentalists) aimed at thwarting and checking human encroachment into wilderness is being supplanted by the eco-nurturing of areas that are already developed.

Does this mean that we all need to live in cities? No, of course not.

However, we really need to rethink the image of cites. My generation, following Thoreau's lead, often saw cities as environmental nightmares and instead fled them for the suburbs.

This created a problem, a big one.

As I noted in my most recent book on Writing a New Environmental Era, if a large swath of the population took Thoreau's lead and moved away from cities and out to rural locales it would, with absolutely no doubt, be an environmental disaster of unprecedented proportions.

Why am I so sure? Because…it actually happened and was. It began in the US. in Thoreau's era, motivated by likeminded individuals acting on the same back-to-nature impulse that gave birth to his Walden experiment. In a sense, it became the largest (and to my mind most regrettable) cultural movement of the 20th century.

Hundreds of millions of people across the globe fled cities for the dream of simpler, rural lives. They ended up far short of the goal in suburbia. At first, in Thoreau's era, they left in trains. A century later, the process sped up dramatically, as automobiles became the preferred way to get out of the city and then around in the suburbs. It soon became an environmental disaster on a global scale.

In contrast, today human beings by the billions are moving back to urban areas…It may well be the greatest cultural movement of the 21st century.

I am curious to hear what you think about all this: about living in micro-apartments, co-housing communities, and cities (and their regreening). Although it may sound a little strange soon first hearing, each of these decisions can be a form climate activism.