The Importance of Sustainable Architecture in the Shift to a Sustainable Society
By Grace Cajski

When architects and engineers come together to design a building, they are not just forming a space of learning or work or living--what they are creating has impacts extending far beyond its designed use. The ebb and flow of a party is, in part, determined by the size and shape of the room in which it's hosted; the longevity of a brunch depends on the comfort of the patio; the meals people eat are invariably shaped by the kitchen. The way we live is shaped by the spaces we inhabit. So, too, are the habits we form. We drink more water when there is a water cooler at hand or we clean more often if the supply closet is conveniently located. In the same way, our spaces influence our environmental choices and habits. People are more likely to use cloth towels if they are neatly kept in a drawer in the kitchen or take a reusable bottle if it is kept in sight. Building design plays a significant role in the ways we interact with and impact the environment. Unfortunately, recent building architecture and construction don't take this role into consideration.

Traditional architecture doesn't take into account the location of the sun in regards to heating and cooling, the use of plants, or other passive ways to decrease a building's impact on the area surrounding it. Designs don't prioritize conservation and efficiency through such means as solar heating and low flow faucets. Additionally, buildings disrupt the natural environment. They prevent rainwater from penetrating the ground. They require building materials, such as concrete, that contribute to climate change. To offset the inevitable environmental disruptions that accompany construction of any sort, architects and engineers should take all possible measures to make their projects greener.

Given the impact that buildings have on the environment and the climate, through their design and construction as well as the habits that they incur in us, it is crucial that we embrace green, sustainable architecture.

There already exist reputable organizations and codes that provide insight and guidance into designing a green building. One of the most prominent organizations is the United States Green Building Council (USGBC). This group established the Leadership in Energy and Design (LEED) rating system in 1993 and has been a leader in the green building design field ever since.¹ The USGBC encourages green building design as a method of not only social accountability but also as a way of increasing efficiency and cutting costs.² LEED-certified buildings are not government-mandated, though, and this is an opt-in program.

The LEED standards provide framework and accountability. Similarly, the Environmental Protection Agency provides guidance and information on smart growth and green building on its website.³ The problem with such standards, importantly, is that they are hodge-podge and often subject to change. Not all organizations create the same standards, or any at all, and the LEED certification sometimes is not enticing enough for people to invest the extra effort and initial costs.

¹ https://www.usgbc.org/about/brand
² https://www.usgbc.org/leed/why-leed
³ https://www.epa.gov/smartgrowth/location-and-green-building
What is needed is government regulation and guidance on green building that is on the local scale. San Francisco is a perfect example of a local government that has adopted a green building code. Initially established in 2008, the San Francisco Green Building Code has been continually updated throughout the years to account for new technologies and knowledge. Most recently, it was updated in 2018 to require newly constructed buildings to have electrical infrastructure capable of supplying electricity to charge electric vehicles at all parking spaces. By reducing energy and water use, diverting waste from landfills, and encouraging alternative modes of transportation, the building code aspires to ensure that all buildings are healthy, sustainable places to live, work, and learn. Other cities have adopted green codes similar to those of San Francisco. If other municipalities followed their lead, accounting for differences in community, geography, and culture, we could efficiently and effectively live more sustainably.

Grace Cajski is a contributing member of the Grassroots Network Climate Emergency Mobilization team. If you have a suggestion for a future blog topic or are interested in joining the team, please reach out to us at climateemergency[at]sfbaysc[dot]org.

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4 https://sfenvironment.org/green-building-ordinance-sf-building-code