

The Design Check-list

Yes, this is the Sustainable Design Check-list. It's only that we think all design should be sustainable. So that's why it's just a Design Check-list.

So here you go - things to consider while designing a space:



1. What is the need ?

The biggest waste is an unused space! So ask this: what is really needed so that this space can best serve its intended use and the people in it? It's wise to dig deeper and see what's the underlying need behind the apparent need, and whether what you had in mind is really the best solution for that. If unsure, don't hesitate to consult a professional with this one! And, if something isn't really needed, don't buy it. Sometimes loaning, sharing and renting are valid options too. Also, if you have the possibility, many times it is better to start using the space first, and let yourself come to the conclusion of what is actually needed for the space to work.

2. Save energy !

Buildings and energy consumption are some of the major contributors to climate change. A lot can be done to improve the situation! Do this by opting for renewable energy sources that are non-carbon-based, preferably ones that aren't based on burning anything, and by optimizing the energy efficiency of your space. See that your doors and windows are well insulated, and apply ways to control the room temperature, for example proper curtains and blinds to block the sun's heat. Check the energy efficiency of your appliances and use LED-lighting. There are also systems that help monitor and optimize the consumption of energy in your space.

3. What materials to use ?

There are many factors that play a role in materials' environmental impact. Professionally materials are evaluated with a Life Cycle Assessment (LCA), that includes raw material extraction, manufacturing, transportation, use and maintenance, and how the material is discarded or recycled after use. This might sound intensive, but it's a good guideline to consider even if you're not a professional.

Usually materials with fossil-based raw materials, such as oil, answer for the biggest emissions. Renewable, bio-based materials in turn store carbon, but if those products are burned upon disposal, that carbon is released. How the material is harvested is another thing. There are certificates you can look for that tell about the material's origin; for example FSC or PEFC -labels for wood products tell you the wood has been harvested sustainably. Choose materials that are quickly renewable, or products that are made from recycled material. This doesn't mean worse quality any more! For example many fabrics that consist of 100% recycled fiber perform even better than the virgin material.

Also remember to consider the material's maintenance. Go with materials that are easy to clean and don't require hard chemicals for cleaning or protection. Organic materials, such as wool or stone, might sound very eco-friendly, but remember that they often require extra care, and that they wear quite easily. It's also wise to check if the material can be recycled. More on that in tip number 7!

Still the best choice you can make is to pick a material that best suits the use! Think how the surface or product will be used, and what attributes are required to meet those challenges. Does it need to be very wear resistant or easy to clean? Don't overlook the value of aesthetics here either. A product, no matter how functional, will not last long in your space if it isn't pleasing and doesn't bring you joy.

4. Long life is the key !

The longer your space, product or material lasts, the smaller its relative emissions get! This is why it's imperative to make sure it meets the requirements for its use properly, so you'll be happy with it for a long time. Other ways to strive for longevity are for example: looking for secondhand products, using durable materials, using materials that age beautifully or develop a nice patina, saving something in stead of replacing all surfaces or parts of a product, choosing timelessness over trends and quality over quantity, and last but not least: careful and regular maintenance. Also products and spaces with a personal meaning to you tend to last for way longer than those without.

5. Modularity and repairability !

Nevertheless, people and life circumstances do change, and the spaces and products need to change with them. Anticipate these changes and get materials and products that are easily modifiable. This is also called flexible design.

When designing a layout, think beforehand, should some parts of the space be, for example, easily divided into two or maybe joined together in the future. It is important to remember consider the adequacy of air conditioning, electrical outlets and other building services to fit this future scenario as well.

It is also important to choose materials that are easy and/or possible to maintain, or that require minimal maintenance. A parquet floor can be sanded and treated with a fresh coating, whereas laminate isn't. On the other hand a vinyl floor doesn't wear like parquet and might even last longer, but it does have greater material emissions. Then again a tile floor also lasts very long and requires minimal maintenance.

The best option is if the material can be repaired or replaced only partially, without demolishing the whole surface, i.e. it is modular. Modularity is also a big plus when choosing furniture! Modular furniture can be altered to fit different spaces and living arrangements, and are usually easy to find spare parts to, which reduces the amount of waste in the long run.

7. What does it become ?

We no longer have the possibility to replace our surroundings according to every trend or season, even if we had the money to do that. All waste is harmful to the environment. Even if it's burned for energy, the carbon in it is released into the atmosphere to further warm it. So, if something isn't really needed, don't buy it. It is important to consider the end of every product's life already before buying or making it. Therefore the new trends worth following are recycling, upcycling and repurposing.

When choosing a product, see if the different materials in it can be separated from each other for recycling. Many manufacturers offer recycling services for their own products, which means they come and pick up the used material, and turn it into a new product in their factory. This action of repeatedly reusing the same material is called circular economy, that that is what we should all pursue! Some materials, like aluminium for instance, can in principle be recycled endlessly without losing its material attributes. Using the same material again significantly reduces the emissions of the next new product. Upcycling means using the material to make something new with greater value; when a new fabric is made from abandoned fishing nets, for instance. Repurposing is finding a new way or location to use an old product or parts of it.

6. It's a health issue !

If your space is good for you, it will more likely have a long life! There are several factors that contribute to the health aspect of spaces, such as air quality, heating and ventilation, lighting and acoustics.

When renovating, ensure the structure of the building is in good condition, especially when restoring an old building. Find out what building and ventilation methods have been used, and what techniques and materials can be used to supplement them. This is also a very good place to consult a professional. Indoor air quality can be improved with a well filtered ventilation system, and by using materials and products with low VOC (Volatile Organic Compounds) emissions. The EU also keeps a list of SVHC-chemicals (Substances of Very High Concern) that have serious effects on human health or the environment. There are labels you can look for to find healthy products, such as the MI-certificate or the Allergy Label. Plants also act as natural air filters and increase the amount of oxygen in the air, and contrary to common beliefs, carpets are better for the indoor air quality compared to hard floor materials, as they trap particles from the air until vacuumed.

When considering wellbeing, the lighting conditions and the acoustic properties of the space are also important aspects to notice, since those have a fundamental impact on mental health. Natural light and all natural elements, such as plants, reduce the amount of stress and increase vitality and productivity. There's actually a whole design field regarding this, called Biophilic Design. Proper lighting, consisting of general, task and ambience lighting, also ensures the functionality of the space. Pleasant acoustics with minimal echo and vibration help with concentration and create a homely, intimate atmosphere.