In 1956 Malcom McLean, an American trucking entrepreneur, invented shipping containers (also known as cargo containers and sea container) and used them to transport trailer vans on a refitted tank ship from New Jersey to Texas. Little did he know at the time that, many years later, his idea would ever be mentioned in architectural terms.

Actually, it didn’t take long for the shipping container architecture idea to come along. Reyner Banham was the first to consider it as a possibility. In the late 1960s, he said in essay about ports that cargo containers are like a type of ‘plug and play’ architecture.

However, the first shipping container house was not built until two decades later. In 1986, the first shipping container design was completed, and a house was built in the Netherlands (see below). Then, in 1987, Phillip Clark came up with his own shipping container design and built a house in the US.

As our selection below illustrates, today shipping container houses (or more broadly shipping container buildings) are quite common. Shipping container architecture is sometimes also known as ‘cargotecture’ and the containers are sometimes called ‘arkitainers’.
Why is shipping container architecture popular

Shipping containers, used as building materials, offer a range of benefits. They are inherently strong, come ready-made, and can handle all types of harsh environments. They can be easily transported by train, truck, or sea (indeed, this is exactly what they are designed for), and can be easily stacked to create shipping container buildings of various sizes.

On top of that, building a shipping container house is quite simple. Conversion is not difficult, and they are relatively inexpensive and can be modified to suit a range of applications. Add to that a certain grungy appeal, and it is understandable that many see them as a winner. Software helps come up with a renovated design.

The negatives of shipping container architecture

However, Shipping containers do have their drawbacks. Claims of their sustainability – which are largely associated with the fact that they were once used for transport and are given a new life as shipping container buildings – should be balanced with the fact that they are made of steel and therefore have very poor insulation qualities. They require much better insulation than alternatives.

Also, their sheer weight means that, while they can be transported large distances effectively by rail, road, and sea, once they arrive at their intended destination, cranes are generally needed to move them.

Another problem is that humidity condenses on steel, which invites rust. Also, whenever a shipping container finds a new life as a home, the occupier would want to hope that his/her new home was never used to transport unhealthy chemicals and that spillages never occurred on its many trips around the globe.

Then, finally, there is the fact that the dimensions of the containers limit shipping container design possibilities. In reality, they are not as flexible as some claim. Therefore, house plans can be difficult to come up with. Most resulting apartments are small, like studios.

Still, they retain their appeal. While many architects have worked with shipping containers, it is difficult to name any one of any significance who could be held as a champion of shipping container architecture. While some may claim that it is a fad, others still are happy to point out the strengths of shipping container architecture. The following list of pictures proves their point.

1. Little Box on the Prairie

Architect: TY Kelly
Location: Livingston, Montana
Build Date: 2013

Referring to the name of the famous series of novels from the 1930s and the 1970s TV series it inspired (‘Little House on the Prairie’), Little Box on the Prairie is a 700 square-foot house made from shipping containers. Located on a 10-acre property, the structure also includes redwood flooring and plywood wall panels, which were salvaged off-site, recycled, and reused.
2. Casa Reciclada (Recycled House)

Shipping container homes architect: Sachi Fujimori

Location: Peru

Build Date: 2014

Casa Reciclada is made of three shipping containers (two measuring 20 feet, and one measuring 40 feet), as well as several other re-used materials. Peru is actually one place where the use of containers is well known. In that nation, they are often used to build mining camps, clinics, and so forth.
3. Container House

Shipping container homes architect: CG Architectes

Location: Pont Péan, France

Build Date: 2014

Featuring two shipping containers which were renovated and placed diagonally, one on top of the other, this modern structure in Brittany is clad in a low-maintenance material and offers a sleek finish. The inside of the home, with its simple furnishings and bright look doesn’t disappoint either. The combination of grey and green colours for the containers is also a real winner.
4. Joshua Tree Residence

Shipping container homes architect: Whitaker Studio

Location: Joshua Tree, California

Build Date: Not yet built

Designed for a Hollywood film producer and located in the California desert, this exciting container house hasn't actually been built yet. However, considering it was planned in 2017 (and has already been sold for US$3.5m) we decided to include it in our list anyway. We eagerly await its completion!
5. Campus

Architect: Han Slawik for Architech

Location: The Netherlands

Build Date: 1986

Built back in 1986 for an architecture competition organised around a theme of ‘temporary living’, this is the world’s first house made of steel ISO freight containers. As such, the structure was quite experimental in terms of design and construction, and ground-breaking when completed.
6. CURA

Architects: Carlo Ratti and Italo Rota

Location: Milan, Italy

Build Date: 2020

Connected Units for Respiratory Ailments (CURA), which also means ‘cure’ in Latin, was designed in March 2020 in response to the COVID-19 crisis. At that time, the pandemic was in its early stages and rapidly growing. Consisting of several intensive care unit (ICU) pods, its construction was all about increasing Italy's intensive care capacity.
7. Hamptons Container Beach Box

Architects: Andrew Anderson

Location: Hamptons, New York

Build Date: 2012

The first shipping container house at the bottom in this prestigious location, Hamptons Container Beach Box is made with six recycled containers. It boasts a beautiful interior, some impressive environmental credentials, including energy-saving water heater, 16 SEER HVAC and friendly spray polyurethane foam insulation.
8. Quadrum Ski & Yoga Resort

Architects: Sandro Ramishvili and Irakli Eristavi

Location: Gudauri, Georgia

Build Date: 2012

Located 2200 metres above sea level in the Caucasus Mountains, this high-end resort by Sandro Ramishvili and Irakli Eristavi is designed to mimic the sloping shape of the surrounding mountains. The stacked containers with their pyramid shape deliver stunning panoramic views to all guests. Each cargo container has timber panelling that acts as insulation.
9. Brisbane House

Architect: Todd Miller

Location: Brisbane, Australia

Build Date: 2014

Located in Graceville, just 8km from the Brisbane CBD, this spectacular home is made of 31 cargo containers. The biggest such house in Australia, it is designed by builder, Todd Miller.