

Bsk

Semi-arid Climate

Location Examples:

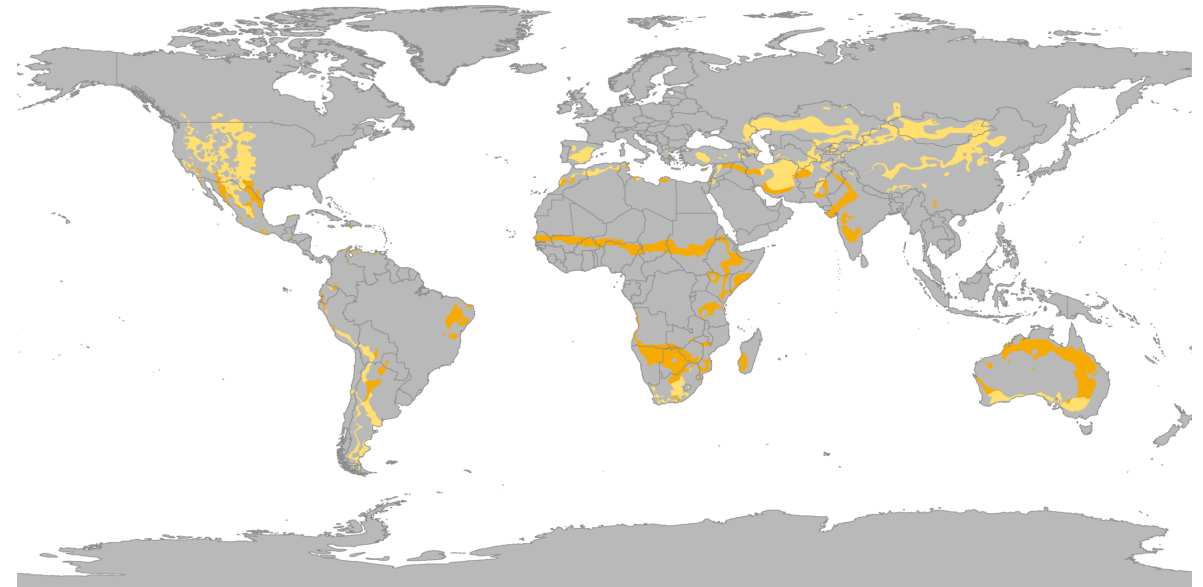
- Urubo, Bolivia
- Valencia, Spain
- Los Vilos, Chile
- Lavasan, Iran
- San Diego, United States

Cold semi-arid climates tend to be located in temperate zones or elevated portions in subtropical zones, typically bordering a humid continental climate or a Mediterranean climate. They are typically found in continental interiors some distance from large bodies of water. Cold semi-arid climates usually feature warm to hot dry summers and cold winters. The climate features major temperature swings between day and night, sometimes by as much as 20 °C (36 °F) or more in that time frame.

Materials used in this climate may range and include, but not limited to, plastic and concrete.

Sources:

https://en.wikipedia.org/wiki/Semi-arid_climate#Cold_semi-arid_climates

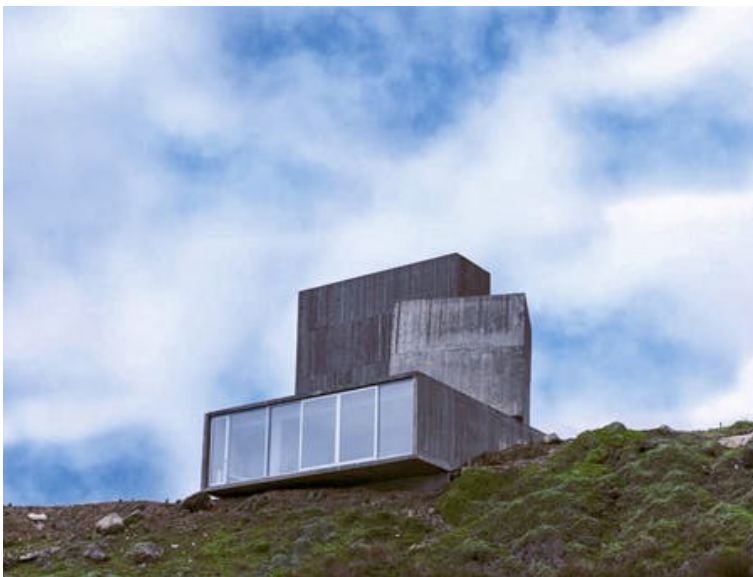


Los Vilos, Chile

Casa Ocho Quebradas

case study
By Yanan Qian

Location: Los Vilos, Chile



Architect: Elemental

Owner: N/A

Year of completion: 2014

Climate: BSk

Material of interest: Concrete

Application: Exterior & Interior

Properties of material: The vacation home is comprised of three large concrete volumes specifically stacked one against the other.
Strength, durability, thermal mass

Sources:

Architect Website: <http://www.elementalchile.cl/en/>
<https://archinect.com/news/article/150090685/alejandro-arevena-s-alluring-concrete-vacation-home>

Church in Urubo

case study
By Larissa Sattler

Location: Urubo, Bolivia



Architect: Jae Cha

Owner: N/A

Year of completion: 2000

Climate: Cold Semi-Arid Climate

Material of interest: Recycled Beer Crates, Recycled Facade

Application: Exterior

Properties of material: The simplicity of the materials created a highly flexible space that blended traditional wood with inexpensive, yet modern polycarbonate plastic panels. Additionally, the polycarbonate plastic panels create an interplay of light and shadows when the light strikes it.

Sources:

<http://www.floornature.com/jae-cha-church-in-urubo-bolivia-4012>

Concrete Restaurant

case study
By Larissa Sattler

Location: Lavasan, Tehran Province, Iran



Architect: Boozhgan Studio

Owner: Mohammad Zooei

Year of completion: 2017

Climate: Cold Semi-Arid Climate

Material of interest: Concrete and Concrete Tile

Application: Exterior and Interior

Properties of material: Concrete is not a traditional building material and there was a lack of technological experience, which made the overall construction process more difficult. However, the blend of concrete and concrete tiles provided a unique design blend that makes that restaurant exciting to explore.

Sources:

Architect Website: <http://www.boozhgan.com/>

Manufacturer's Website: <https://www.tabriztile.com/contact-us.html>

Additional Sources: <https://www.archdaily.com/882378/concrete-restaurant-boozhgan-studio>

Marina de Empresas

case study
By Zhuoying Chen

Location: Valencia, Spain



Architect: ERRE arquitectura

Owner: Escuela de Empresarios

Year of completion: 2015

Climate: BSk (Tropical and Subtropical Steppe Climate)

Material of interest: Fiber Reinforced Plastic

Application: Facade

Properties of material:

- Resilience to corrosion
- High-strength
- Light-weight, low labor cost
- Easy to duplicate, easy to have a uniform surface
- Cheap

Sources:

<https://www.archdaily.com/894586/marina-de-empre-sas-erre-arquitectura>

Location: San Diego, California



Architect: Louis Kahn

Owner: John Jacob Glessner

Year of completion: 2014

Climate: BSK

Material of interest: Concrete

Application: whole building

Properties of material: The new design adopts the cantilever structure featuring "vault-umbrella" with independent walls while the shear walls with free layout are embedded into the original basement so as to be concreted with the original framework structure.

Sources:

<https://www.archdaily.com/554661/long-museum-west-bund-atelier-deshaus>