Bwk

Cold desert climates

Location Examples:

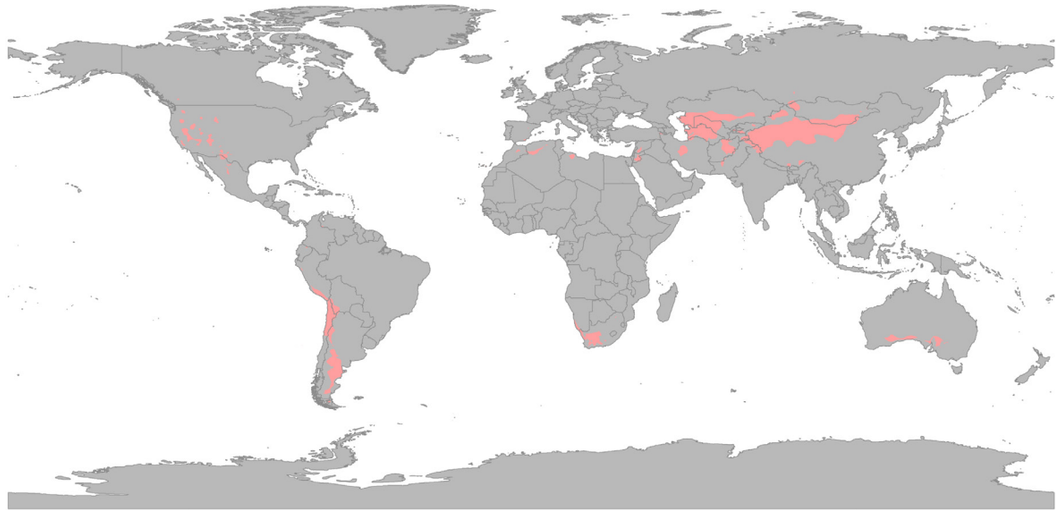
- Kyzyl Kum
- Taklamakan
- Bardenas Reales
- Katpana Desert

study
By Yuhui Xiong

Cold desert climates (BWk) usually feature hot (or warm in a few instances), dry summers, though summers are not typically as hot as hot desert climates. Unlike hot desert climates, cold desert climates tend to feature cold, dry winters. Snow tends to be rare in regions with this climate. The Gobi Desert in Mongolia is a classic example for cold deserts. Though hot in the summer, it shares the very cold winters of the rest of Central Asia. Cold desert climates are typically found at higher altitudes than hot desert climates and are usually drier than hot desert climates.

Cold desert climates are typically located in temperate zones, usually in the rain shadow of high mountains, which restrict precipitation from the westerly winds.

https://en.wikipedia.org/wiki/Desert_climate#Cold_desert_climates



Hornitos Hotel

case study
By Sheng Yan

Location: Hornitos, Chile

Architect: Gonzalo Mardones V Arquitectos

Owner: Hotel y Cabañas Hornitos

Year of completion: 2012

Climate: Cold Desert Climate (Koppen Climate Classification: BWk)

Material of interest: Cast-in-Place Concrete

Application: Structure, Exterior, Interior

Properties of material: Concrete with locally mined aggregates not only provide the building a color that is similar to that of the locale, but also provide veranda spaces to cool hotel rooms during the day, and heat for the cold desert nights by concrete's inherent high thermal retaining properties.

Sources:

Architect Website: http://www.gonzalomardonesv.cl/
Web Magazine: https://www.archdaily.com/375284/hornitos-hotel-gonzalo-mardones-viviani?ad_medium=gallery

Photographer:

Nico Saieh

DongZhuang Museum

case study
By Yuhui Xiong

Location: Xinjiang, China

Architect: Xinjiang Wind Architectural Design & Research Institute

Owner: N/A

Year of completion: 2016

Climate: Cold desert climate (Bwk)

Material of interest: Stone

Application: Exterior

Properties of material: The R value is high.

Sources:
https://www.archdaily.com/876711/dongzhuang-building-museum-of-western-regions-xinjiang-wind-architectural-design-and-research-institute