

# Dwb

## Humid Continental Climate

### Location Examples:

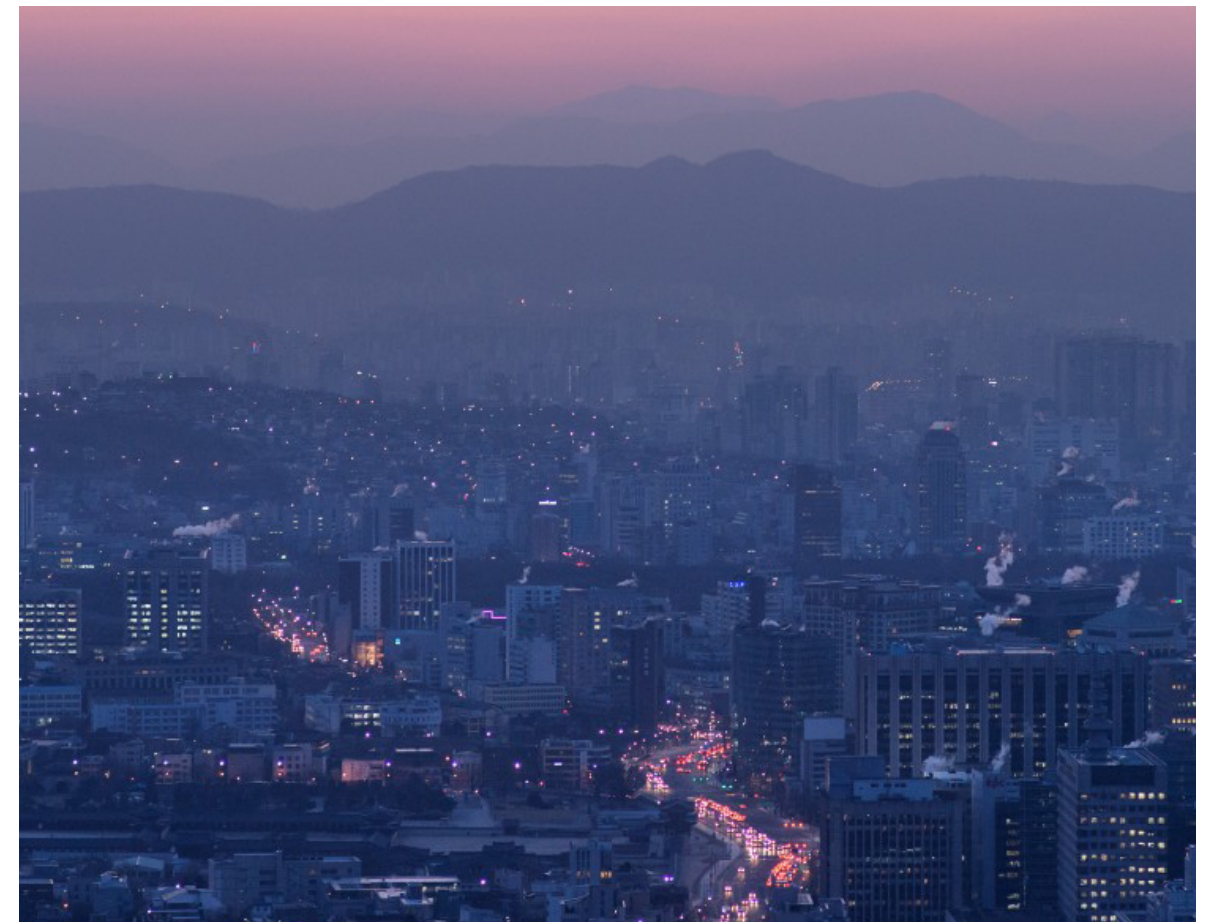
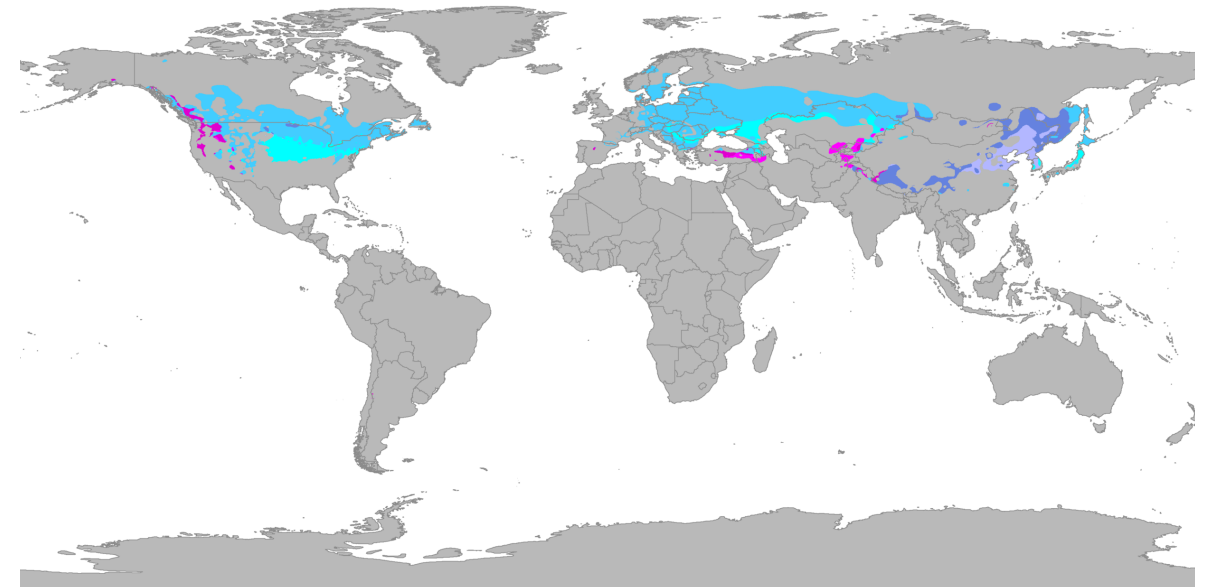
- Yongin, South Korea
- Gyeonggi-do, South Korea
  - Seoul, South Korea
- Pyeongchang, South Korea

Humid continental climate, major climate type of the Köppen classification that exhibits large seasonal temperature contrasts with hot summers and cold winters. It is found between 30° and 60° N in central and eastern North America and Asia in the major zone of conflict between polar and tropical air masses. Along with the continental subarctic climate, the humid continental climate is a primarily Northern Hemispheric phenomena, since landmasses are absent at the significant latitudes in the Southern Hemisphere.

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

### Sources:

<https://www.britannica.com/science/humid-continental-climate>



Seoul, South Korea



# Hanil Visitors Center & Guest House

case study  
By Yanan Qian

Location: South Korea



**Architect:** BCHO Architects

**Owner:** N/A

**Year of completion:** 2009

**Climate:** Dwb

**Material of interest:** recycling concrete

**Application:** Exterior

**Properties of material:** Concrete has been broken and recast in various materials creating both translucent and opaque tiles.

**Sources:**

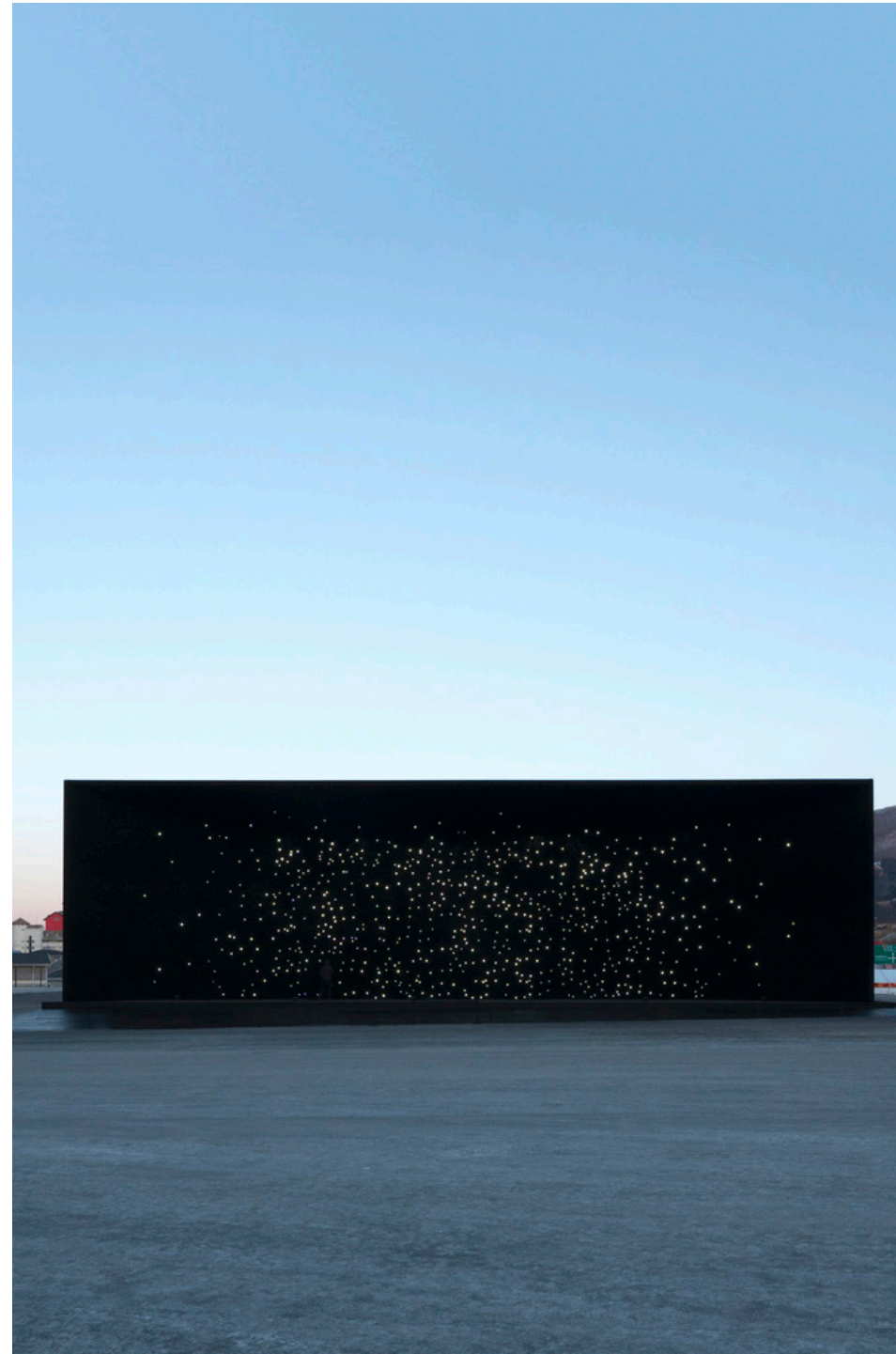
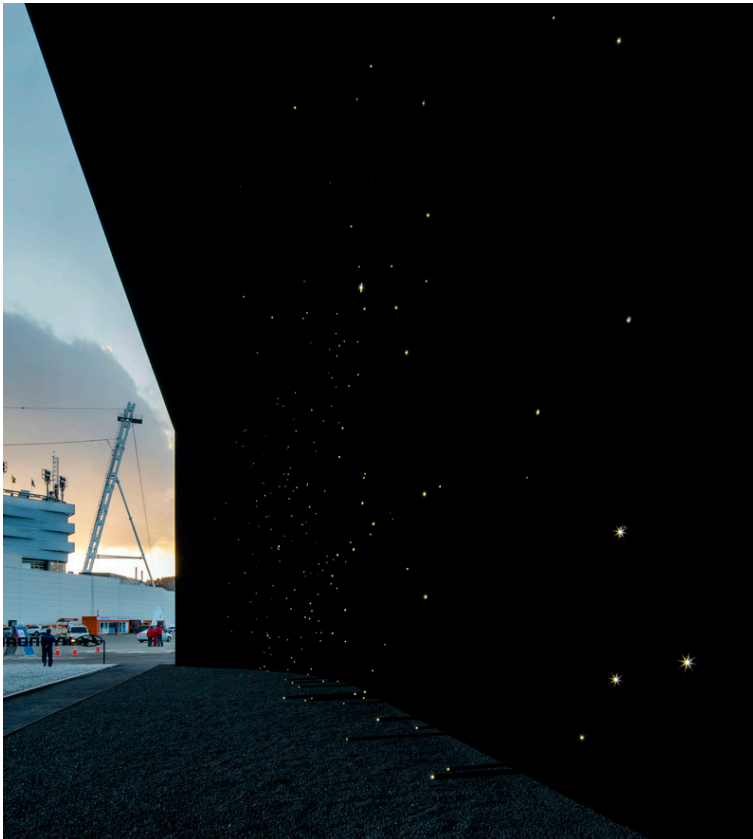
Architect Website: <http://www.bchoarchitects.com/>  
<https://www.archdaily.com/72484/hanil-visitors-center-guest-house-bcho-architects>



# Hyundai Pavilion

case study  
By Rui Guo

Location: Pyeongchang ,South Korea



**Architect:** Asif Khan

**Owner:** Hyundai Motor Co.

**Year of completion:** 2018

**Climate:** Humid continental climate - Dwb

**Material of interest:** Darkest material in the world

**Application:** Exterior, Interior, facade

**Properties of material:** The world's first super black building. The 33 ft tall facade are coated with artificial material named as Vantablack VBx2. The black facade dwells thousands of tiny lights to create an illusion of outerspace.

**Sources:**

[https://www.architectmagazine.com/project-gallery/hyundai-pavilion\\_o](https://www.architectmagazine.com/project-gallery/hyundai-pavilion_o)

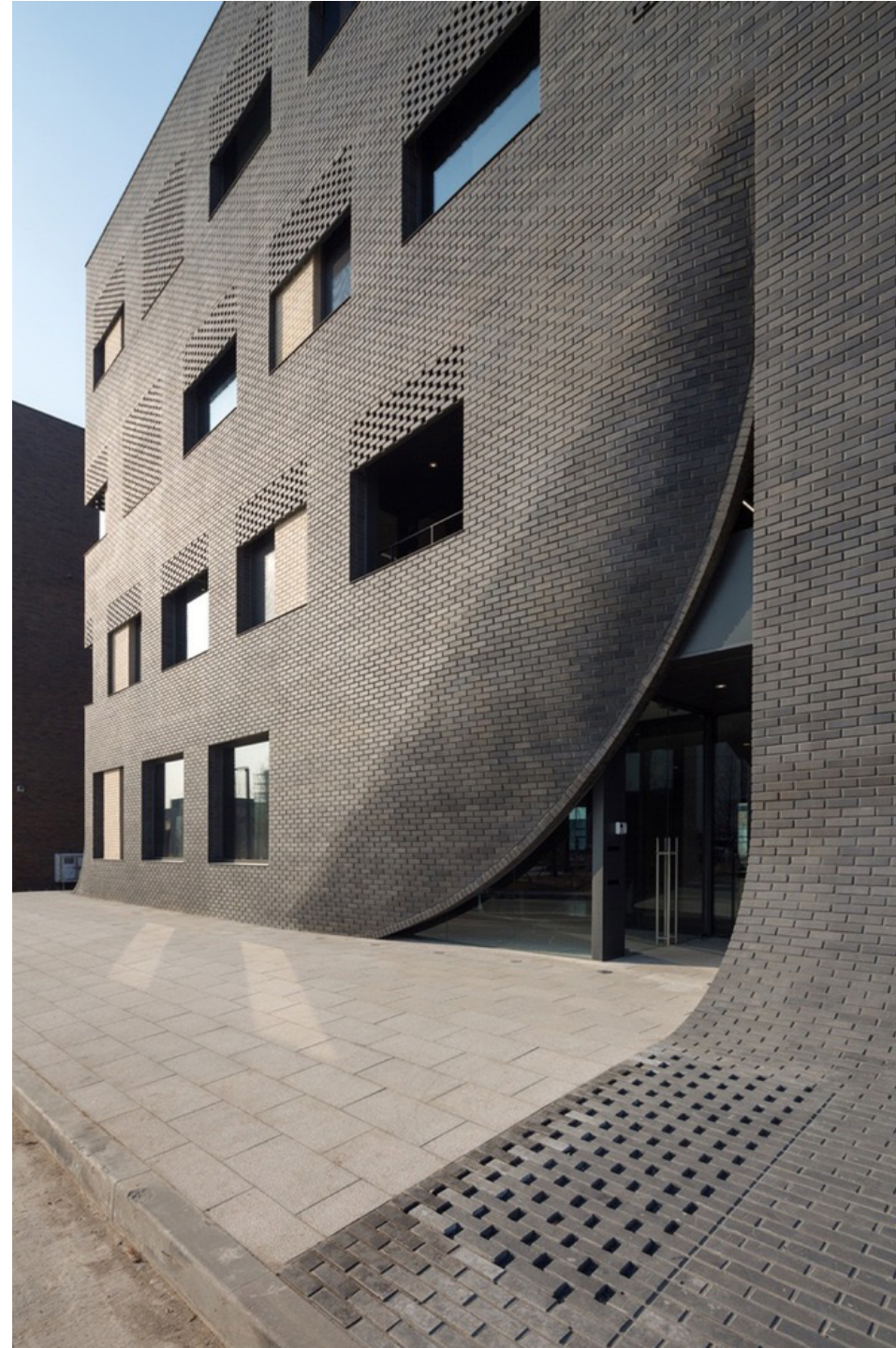
<https://www.archdaily.com/888607/asif-khan-unveils-darkest-building-on-earth-for-winter-olympics-pavilion>



# MU:M Office Building

case study  
By Yanan Qian

Location: Gyeonggi-do, South Korea



**Architect:** Wise Architecture

**Owner:** N/A

**Year of completion:** 2015

**Climate:** Dwb

**Material of interest:** bricks

**Application:** Exterior & Interior

**Properties of material:** Entirely covered with black brick, the building has a twisted rectangular shape, and its entrance defined by the incised surface of the distorted structure makes it difficult to distinguish between the front and the back. In contrast to the torn entrance, 2m×2m large windows are installed as openings in order to enhance the sense of openness on the lower floors. To block out the excessive light flowing into the upper floors, the architect designed lintels to be closed gradually rather than installing smaller windows on those floors. And by using the twisted form and repetitive wall pattern, the architect gave a sense of rhythm to the black building which can look plain.

Compressive Strength

**Sources:**

Architect Website: <http://wisearchitecture.com/>  
<https://www.archdaily.com/800292/mu-m-office-building-wise-architecture>



# Silver Shack

case study  
By Yanan Qian

Location: Seoul, South Korea



**Architect:** Chae Pereira Architects

**Owner:** N/A

**Year of completion:** 2014

**Climate:** Dwb

**Material of interest:** plastic

**Application:** Exterior

**Properties of material:** The housing is clad with layer of translucent polycarbonate fixed on a regular steel frame which let see the aluminum-coated insulation or circulations spaces.

## Sources:

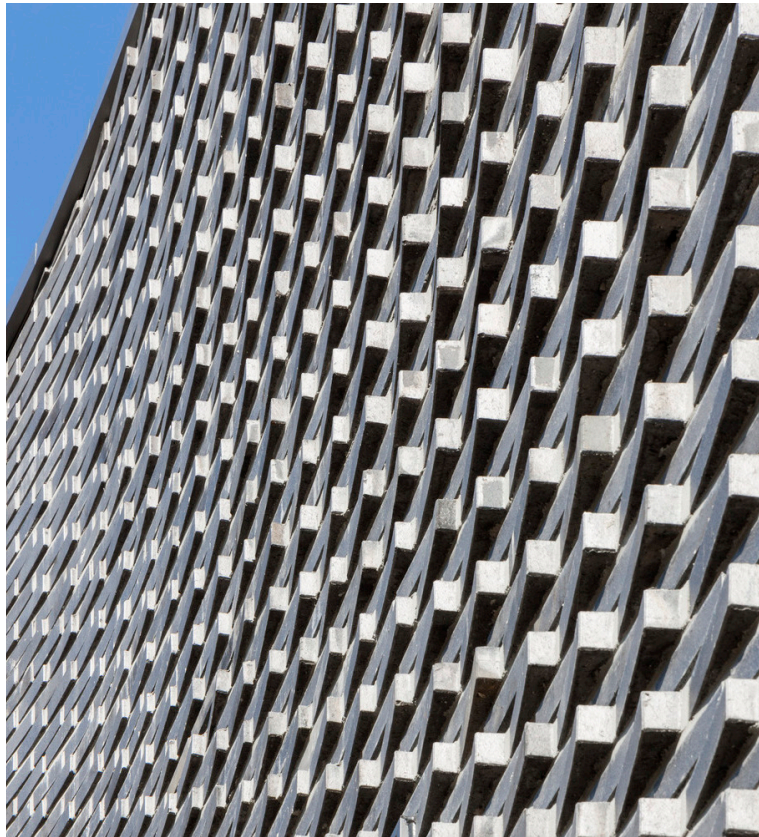
Architect Website: [www.chaepereira.com/](http://www.chaepereira.com/)  
<https://www.archdaily.com/81714/silver-shack-chaepereira-architects>  
<https://divisare.com/projects/257344-chaepereira-architects-silver-shack>



# The Curving House

case study  
By Yanan Qian

Location: Yongin, South Korea



**Architect:** JOHO Architecture

**Owner:** N/A

**Year of completion:** 2012

**Climate:** Dwb

**Material of interest:** bricks

**Application:** Exterior

**Properties of material:** The traditional bricks used for this project have silver water-repellent coating on the surface and show sentimentality different from the rough surfaces of their tops and bottoms. The bricks with two different surfaces were piled to form a certain pattern from angles  $1^\circ$  through  $25^\circ$ . In other words, the variation of angle is another way how the outer skin in the shape of a concave lens facing south defines its existence. The shadow of the brick wall cast as the Sun moves converts the flow of lines into the subtle change of the outer skin. The variation of the brick surface is intended to read the entire mass differently according to the perspective of incomer and the perspective of viewing the images from the mountains.

**Sources:**

Architect Website: <http://www.johoarchitecture.com/project/curving-house/>  
<https://www.archdaily.com/328609/the-curving-house-joho-architecture>