



The Broad Museum

Architects: Diller Scofidio + Renfro

Location: 221 South Grand Avenue, Los Angeles,
CA 90012, United States

1. The Broad Museum is located in LA, California. The climate of LA is Mediterranean. Summer rain is very limited creating dry conditions. In August, the average high temperatures are 29 degrees Celsius (84 °Fahrenheit) and lows of 18 degrees Celsius (65.6 °F). Winters are mild, with average high temperatures of 20° C (68 °F) and lows of 9°C (48 °F.) During the winter low level of rain fall are expected.

3. As the exterior skin creates amazing conditions on the inside, some of the exterior conditions were hard to control. While waiting to enter the museum, the almost white color of the precast concrete reflects light which creates reduces the comfort of the people entering. Maybe some of the panels exposed to the adjacent streets could create more shading for pedestrians and eliminate the radiation.

2. The overall design consist of a pre-fabricated precast concrete envelope and an interior core. To address solar radiation, conduction and ventilation, the “veil” like skin of the building was designed to control those factors. The whole skin of the building acts as radiation filtration device to protect the interior from the intense radiation in that climate. The orientation of the skylights allow for shading but also for daylight harvesting. Some windows are also operable to allow for demand controlled ventilation. The entrance, where the exterior skin lifts up, allows for exterior shading of the area keeping it cool during summers/self-shading. Each skylight is also fitted with black-out shades when needed. The overall design also includes a green space for biofiltration which is supposed to offset the heat island effect.