we cut a piece of native Californian habitat out of the ground, elevate it and put the building underneath? The answer was, of course, yes. But how was it to be achieved?

Working with the client body, first led by silenzo's John Patrick Keselich (ex-post in disguise) and subsequently by educationalist Greg Farringer, Piano and his team had access to all the expert consultants they could possibly need. A collaboration ensued.

Running a controlled experiment on a nearby site with the same microclimate as Golden Gate Park, 20 to 35 native species were grown in sterilized organic biots. Eventually, five species were identified and selected that could flourish in these conditions, bringing with them butterflies and birds. As a result, the roof surface hosts about 1.7 million plants, growing in 50,000 8-inch deep, biologiably-viable concrete buckets.

This elevated habitat is intended to be the first exhibit that visitors encounter; rising up through a distinctive red lift tower (circulation is colour-coded throughout) to a (disappointingly small) viewing deck. From here, however, despite the frustration of being hemmed in, the full wonder of the one-hectare roof is revealed in all its surreal glory. If visitors at dusk, as Piano says 'at the Magritte times, when the day goes away', visitors may be lucky enough to witness the fancy gelato maker coming to life, as its circular rooflight glows and fires like night oil, acting as the creature's eyes and mouth, a paradigm on the front page of Men's Health, the French child's newspaper (nearly wowed in Piano's hand before his son returns from school), under the headline: 'Everything in this Museum is Ecological'.

As Piano frequently asserts, however, this building is not just about the roof. Nor is it just about how to create an informative and exhilarating...