

Biome Beehive

All through the last century the beehive inspired leading architects. Today, as designing from nature becomes an increasingly attractive architectural principle, could beehive buildings be set to return?

Of the various social insects, bees are often seen as the most attractive to humans. Whilst ants can be viewed as war-mongers disciplined to an anonymous and militaristic degree with hierarchies of masters and slaves, bees seem different. They are pleasantly industrious. Their twin harvests, honey and wax, are seen as life-enhancing. Their strange radar, their dance of life for flowers, and their kooky colour vision adds something altogether spooky to their realm. Ants cast the mind towards the dictatorial group psychology of fascism and communism. This is not the case with bees, and although in recent times a certain ambiguity has crept in, bees and their beehives have down the ages, been eulogised as symbolising the 'perfect society' for the human sphere to base itself on. From Aristotle in classical Greece, from the Bible to the Koran, from the Ancien Régime to revolutionary France and its working class communes, the multi-faceted nature of apiculture, has appealed; and bee's colonies and their ways of organisation have been seen as a guiding metaphor for an ideal, utopian community.

It isn't surprising, therefore, that the 'natural architecture' and 'spirit of the beehive' has been an alluring startpoint for a range of architectural experiments in modern times, going back at least to the last decades of the nineteenth century. Simultaneously, during that period hand-constructed beehives underwent an industrially-influenced transformation. The essentially medieval circular basket and coned thatched hives, were replaced by the rationalised industrial hive; a container with a series of layered shelves in which the bees could make their honeycombs. This innovation was the mindchild, in the first instance, of Lorenzo Langstroth, although a series of further adaptations were required before it settled into the antecedents of contemporary design. This change towards the rational, announced by its box-shaped utility, has not escaped many who have observed it, as anticipating in miniature much of the skyscraper principle.

In the postwar years, with the spectre of fascism and the rise of society seen as a 'mass' phenomenon, the metaphor of bees and social insect became less attractive and the number and variety of structures emerging from this organicist imagery declined. Today however, the organic metaphor and 'design by nature' in architecture are experiencing a remarkable turnaround in fortunes. Not only this, but the man who throughout these postwar decades – new renaissance engineer Buckminster Fuller whose buildings resembled versions of beehives – sees his daily influence continuing to grow. Indeed Fuller is great-uncle to a major, newly completed British-based building which will surely be seen as part of the Beehive Metaphor tradition. This is the already widely celebrated multiple clustering of hexagonal domes which comprise the biodiversity centre at Boldeva quarry, Cornwall, known as The Eden Project.

Popular and media interest in the Eden Project's buildings seem likely to spark a renewed interest in buildings which appeal to designs in nature. It will also deepen the burgeoning curiosity about designing from nature, including, I suspect, interest in the recent and complicated history entwining apiculture to architecture. The only study I have come across on this is *The Beehive Metaphor*, an attractive run through earlier twentieth-century architectural interactions with bees, beehives, and apiary culture. Its author, the Spanish architecture writer, Juan Antonio Ramirez, doubts there are many who have been as exposed to bee-culture as himself, since Juan's father lost his fortune due to his father's obsession with bees. Accurate or not, its period of focus ends mid-century, beginning with Gaudí and ending with Le Corbusier. It is therefore incomplete as a history up to the present day. However, the period it does cover, from fin-de-siecle 19th century southern Europe, to the immediate post second world war period, makes for absorbing reading. The book demonstrates the sway bees and their building construction methods have had on many of the previous century's alpha architects, adding Mies van der Rohe, and Frank Lloyd Wright as well as a short cast of sublimary names, (eg, the Hungarian Odon Lechner, the German Peter Behrens and Austrian esotericist Rudolf Steiner), to Gaudí and Le Corbusier. The way in which Ramirez goes about illuminating the connections between these architects and apian culture, is by elaborate and inferential argument. After visiting Le Corbusier's library he notes how Le Corbusier would

