then to a space-age vision of an environment defined mainly by service networks into which shelter was plugged as capsules, or around which it was inflated or slipped together. These concept visions were an exhilarating celebration of technology as liberation. An immediate and influential antecedent to High-Tech as built was perhaps Stirling & Gowan's Leicester Engineering building with its building-as- asshole-Constructionist aesthetic which rendered even such a previously non-conventional material as patent glass powerfully expressive. (It is also possible to detect in this building, though heavily disciplined by geometry, a vitalism quite close to that of the student schemes of the time). Stirling's display of ventilation equipment in the glazed roof of the Castlegate History faculty and his sleek grey skin for the Olivetti Training Centre at Haslemere, though not forerunners of High-Tech, must also have been influential. But even more important as stimuli to the development of High-Tech and its acceptance in Britain were the designs and poise of Cedric Price and the prolific and popular writings of Roy Pennington. Price represented the opposite pole of High-Tech, the antithesis to the vitriolic. His emphasis is on ideas, not forms, which seldom get beyond the gridded or sketchily diagrammatic.

FOREIGN INFLUENCES
Yet many of the most immediate and fruitful sources of High-Tech are not British. Among the most important of these are: the design and teachings of Buckminster Fuller—especially the concepts of 'anticipatory design' and 'doing more with less' as the route to universal well being on a planet of finite resources yet increasing population and expectations; Jean Prouvé's (see p62) development of pressed metal components and ingenious curtain walls (such as the minuscule shoe one for Niemeyer's Communist Party headquarters in Paris) and his cooperation with other architects on such proto-typically flexible buildings as the Maison du Peuple in Clapyaque (an inspiration for Piano & Rogers' Pompidou Centre). Eero Saarinen's General Motors building in Detroit, a potent symbol of technological control where the gauntlet glazing techniques of the car industry were first adapted to buildings; and Max Bill and Herbert Gehr's teaching at Ulm, their research into flexible building systems and concept of productform. Several key influences are Californian: Eero Saarinen's use of exposed frame roofs and air-conditioning plant and ducts have a direct influence on the so-called 'functionalist' teaching areas; Charles Eames' beautiful use of new materials and assembly processes in his furniture, and his house assembled from catalogued industrial components; and the open-plan steel and glass case-study houses illustrated in Arts & Architecture. Other, less important influences are perhaps the Japanese Metabolists and Yona Friedman's magisterial clime. But two of the greatest influences are much earlier, from the heroic age of modern architecture, Bigney & Charean's Maison de Verre, particularly the design of the bathrooms and storage elements obviously an influence on the coffee exhibition centre by Michael Peters & Partners—see p42—and Le Corbusier's comparison in Towards a New Architecture of architecture with the most advanced mechanisms of the period—ships, cars and planes. Today's equivalent, and equally influential to High-Tech, is the super-high-technology gallery of the space programme.

Another important antecedent to High-Tech was the increasing role of structural engineers, or structural forms, in shaping some well-known modern buildings that those by F. L. Wright, Eduardo Torroja, Pella Cardala and in Britain, as already mentioned, by Owen Williams. (The beautifully sculptural precast concrete systems by Mangiaccl & Morassutti might be an inspiration, while the lightweight structures by architect Eero Saarinen certainly were, and continue to be, influential.) The role of the structural engineer has proved so important to British High-Tech that one cannot have full career framing without the creative input of imaginative engineers such as Prank Newby, Tony Hunt and the engineers from Ove Arup & Partners and Buro Happold (see p40). The ICI Panelling Centre (p29), for instance, seems to be Foster's and one of Ove Arup's engineers' response to Roger's and Peter Rice's (also of Ove Arup) less muscular, but perhaps more opulently elegant, Fevertree factory (April 1969). Similarly Rogers' Patecentre, Princes (p48), is clearly Peter Rice's bold simplification of Tony Hunt's beautifully elaborate structure for Rogers' Rough factory (A.D. December 1968).

The first High-Tech buildings in Britain reflect mainly foreign influences. The seminal Reliance Control factory of 1968 by Team 4 (Norman and Wendy Foster, Richard and Su Rogers) looks very Craig Ellwood, while Foster's subsequent projects again show clearest inspiration from Ellwood, this time from the LCS factory.

The first peculiarly British High-Tech building was Parcell & Gimson's bathroom tower plugged in to a Paddington terrace in 1969 (and plugged-out again a year or so ago) which was clearly inspired by de Kooning. In those early days High-Tech was still essentially anti-art, concerned with process and indeterminacy and promoting folly far less. Most typical of the times, and very influential too, were Cedric Price's projects for the 'Posters think belt' and 'Fun Palace' for Jean Littledale (the latter concept eventually partially realised as the Interaction community centre 1977).

BRITISH THOUGHTWEBS
How things have changed... British High-Tech is now quite different. No longer anti-art but High art, the buildings strive to be no such pragmatic and playful process as refined and elegant thoroughbreds. The turning points were Foster's Associates' Willis Faber Dumas and Piano & Rogers' Pompidou Centre—dawn acts as direct inspiration if nothing else. It is not only in horseshoes that the British prize good breeding, but in machines as well. Citroën may be brilliantly ingeniously工程但不美丽 in their own way but Aston Martina or Jaguars have the powerful sleek simplicity of the thoroughbred. Similarly Piano's buildings are the conceptual epitome of High-Tech but have a Galilean anti- objectivity, a lack of material refinement that highlights conceptual ideas at the expense of tactile and visual simplicity. By contrast the buildings of Foster or Rogers, whatever their conceptual vigour, manage with their sleek finishes and beautifully sculpted structures and joints to invent mechanical forms with a seductive new sensuality and sense of vitality that both recalls its origin in student High-Tech and excites the thoroughbred. This inherent vitality explains why High-Tech is absolutely convincing only with free-standing buildings and why for all the supposed