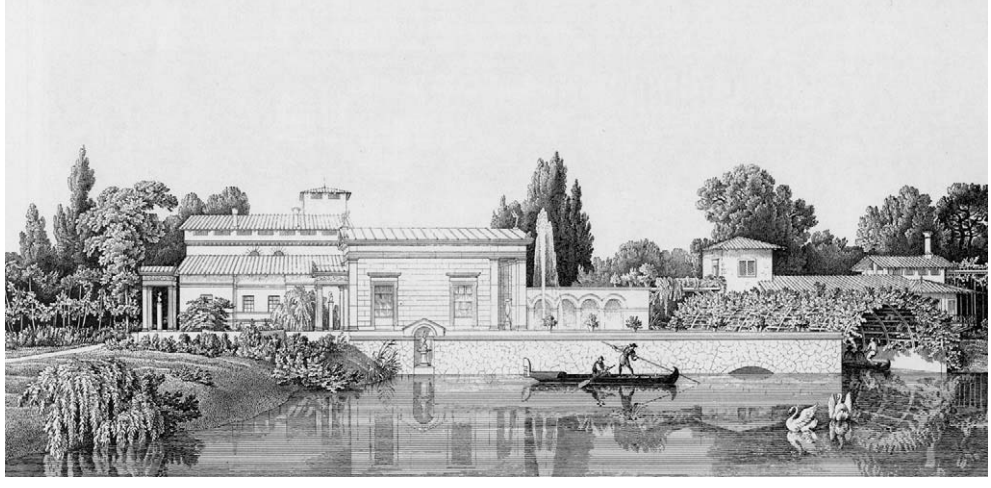
Friedrich Schinkel of 1834 – which appeared as an etching in the *Sammlung architectonischer Entwürfe* published first in serial form between 1819 and 1840 – is to become aware of quite different intentions, not just a different style. First of all it is an engraving and has been worked by another hand. Most importantly, however, the perspective drawn after the building has been designed is a picture of a building in its setting, not an exploratory drawing in the design process. Hence the emphasis on planting, water, the boatman in the gondola, the swans and their reflection. The important relation between architecture and landscape as in Bath or the Regent's Park terraces in London is of course characteristic of the neo-classical period and clearly influential in this engraving; Palladio did not draw his villas in their rural setting.

In terms of continuity and innovation, drawings are arguably neutral; we are equally able to draw the traditional as well as the advanced. We need sophisticated software programs in order to be able to depict certain complex forms such as those of the Guggenheim in Bilbao. Moreover the parts making up that building could not have been made without the use of computer aided design (CAD). The same would be true for



Below
Karl Friedrich Schinkel, Perspective of the Gardener's House in Charlottenhof near Potsdam; engraving from the *Sammlung architectonischer Entwürfe*, published in serial form between 1819 and 1840

a structure such as the Millennium Dome in London. It would seem therefore that certain forms of innovatory architectural and engineering design can only be created because of the availability of programs which allow the buildings and their structures to be drawn, calculated, manufactured and assembled.

The fact that drawing is only an analogue of the building also allows for architectural ideas that might not be realisable either because of cost or the lack of certain technologies to be presented. The history of speculative and fantastic architecture is long and honourable. Drawing in that sense makes innovation easier and thus more likely. Many of the highly exuberant buildings we associate with expressionist architecture, for example, were hardly buildable at the time of their inception. They, however, record in their spontaneity the almost stormy vitality which was their starting point; they were clearly also highly polemical and thus a criticism of existing practice. They represent a visionary tentative solution.

At the other end of the spectrum it is probably true to say that buildings with minimal innovation, such as the vernacular architecture of many societies, are able to dispense with drawings altogether. There is no criticism of the existing forms and methods of construction, no reason not to continue what had been done earlier. There is thus no need for a tentative solution as an analogue; it is possible to erect a barn, a house, a shrine by simply building them from the ground up, using the experience embedded in a tradition.

When drawings become a necessity, and are the essential tools of the design and construction process, they are probably not socially neutral. Drawings give, or at least appear to give, power to a particular profession. As Edward Robbins, a social anthropologist, concluded his analysis of the role of drawings:

> 'In the end, for better or worse, without the empowerment drawing provides architects to take conceptual