

Figure 8-3 Leverage.

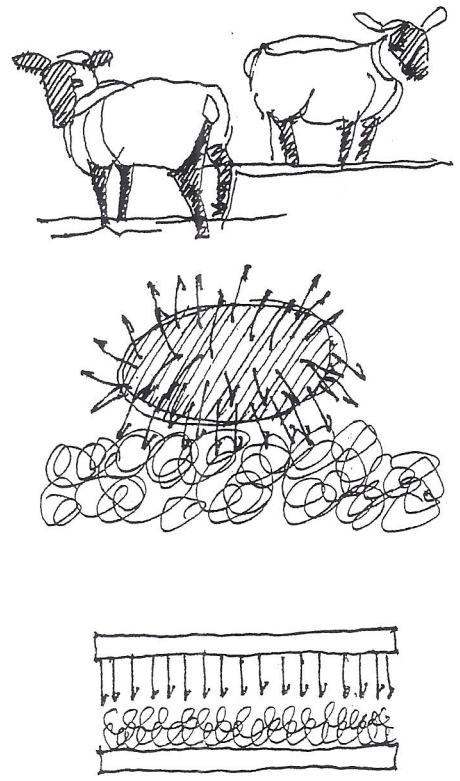


Figure 8-4 Fastening.

THE DISCOVERY PROCESS

For the architect or the designer, the process of discovery consists of two parts: *invention* and *concept formation*. Invention seeks the basic discovery, the original idea for the project; concept formation converts the discovery into a graphic and verbal statement that can give basic direction to the full development of the project.

Invention

David Pye wrote that invention "can only be done deliberately, if the inventor can discern similarities between the particular result which he is envisaging and some other actual result which he has seen and stored in his memory.... An inventor's power to invent depends on his ability to see analogies between results and, secondarily, on his ability to see them between devices."³ The analogies are easily recognized in our everyday inventions. If we lack a hammer to drive tent stakes into the ground, we gain an insight to the solution by seeing a tent pole section or a rock at arm's length analogous to a hammer. Burrs caught in sheep wool were the inspiration for Velcro fasteners, and the cooling effect of the evaporation of perspiration from our skin is the basis of the idea of using semiporous containers to keep water cool.

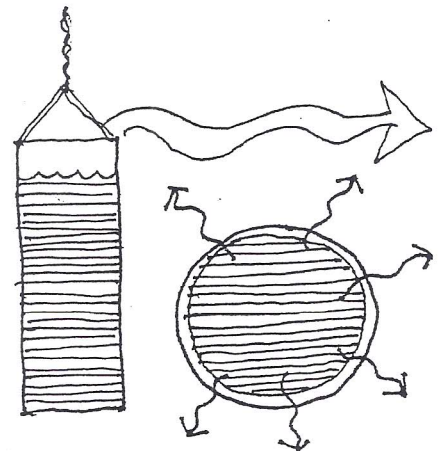
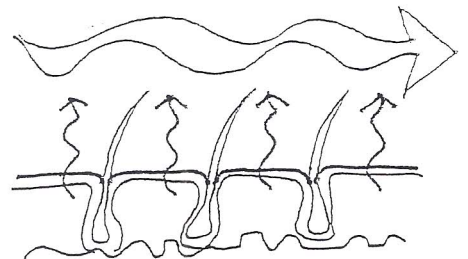


Figure 8-5 Evaporation.

