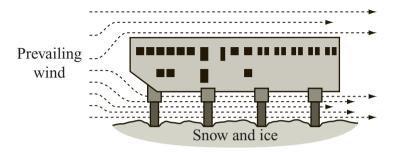


The illustration below shows the Amundsen-Scott South Pole Research Station.



The research station is located in an area where more than eight inches of snow accumulates each year without ever melting. Architects utilized Bernoulli's principle when designing the exterior of the building. The station has an adjustable elevation and is built facing the prevailing wind direction. The front of the building slopes downward and inward.

- a. Explain why the research station has an adjustable elevation.
- b. Describe in detail, using Bernoulli's principle, how the inwardly sloping design of the building has an impact on snow management.
- c. Describe one other possible design feature that would make a building suitable for this environment. Explain your answer.