

Each theme answer is a building whose perimeter makes a polygon.
GONBADEQABUS - 10 sides
USSTEELTOWER - 9 sides
DOME OF THE ROCK - 8 sides
CHICAGO SPIRE - 7 sides
KILLICKSMILL -6 sides
Counting down the number of sides in the perimeter polygons in grid order leaves the next possible answer as a PENTAGON, which is itself a building, and a well-known landmark.

65-Across: Prefix that could very fittingly go in front of 20-Across. The reason this entry was so fitting is because placing it before GONBADEQABUS makes DECAGONBADEQABUS, and that building (which hopefully you Googled and found was a tower tomb in Iran) has a perimeter of 10 sides.

