Measure for Measure_ Explore

Building sites
Students choose their steps as unit of measurement. You ask one of your students to set a walking rhythm and begin to walk along the sides of the building counting (after the student set rhythm, everyone continues on its own). Your students have to convert this measure into meters considering also that each person has his own stride. Just measure the distance of the feet and they will have the measurement in meters.

Building height
Your students have to measure the height of the building and they can do it with a laser meter if you have it or in the absence of it with a sextant or quadrant that can be built with user-friendly material[1]. The quadrant will allow you to find the angle between the line joining your eye with the tip of the object you are measuring and a straight line parallel to the ground.
It is interesting to check if the students realize that the measurement of the side perpendicular to the ground is not the height of the object measured because the quadrant is at the height of our eye.
This activity should be done in pairs. Let your students choose a building element (cupola, bell tower, and so on) and therefore a position from building to measure with the quadrant, report on a paper measure, measure his/her distance from Cathedral (if you don't have a self-retracting metal tape measure) with the same way to use to measure building site and convert the result in meters.
This activity could be done so that every team choose different elements of building. In this case they have to measure only the side of the building related to the element and not all side. In some cases it will not be simple because the structure is not a parallelepiped (Palermo Cathedral isn't) but it will be interesting to see the various attempts they will make. More accurate they will be in identifying the parallelepipeds that form the structure, more accurate the volume calculation will be.

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[1] See file "Quadrant". In it you find materials, how to construct and how to use it.