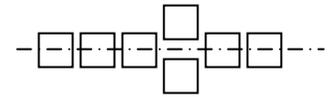


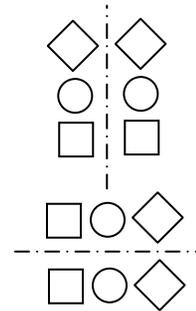
## Ordering Principles

Over the course of history architectural historians and architects have discovered ordering principles that are inherent in designs and can be used to break down the components of a building to study the relationships between these parts. Occasionally architects think about their designs in terms of these principles, but they are primarily used as tools to understand what the design achieves. A few of the most useful ordering principles are defined below.

**Axis:** An axis is a central line that helps to organize a design. Often there is an axis at the center of a building or over a doorway. When architects use an axis or focal point in their design it acts like a straight arrow on a sign, pointing you in the right direction.



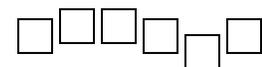
**Symmetry:** Symmetry refers to the geometry of a building and occurs if the building is the same on either side of an axis. There are many types of symmetry but the three that are most commonly used in architecture are **lateral** (the two sides are mirror images of each other), and can be **vertical** (up and down axis) or **horizontal** (across axis).



**Hierarchy:** A hierarchy is a system which organizes items based on how important they are, with the most important things being the most obvious. In architecture, a hierarchy is most often established through the use of shape, size, color, or location. A design element will stand out if it is noticeably different from the rest of the design.



**Rhythm/Repetition:** Rhythm is established through the use of repeated forms. In architecture, repetition refers to a pattern in which the same shape, size, or color is used over and over again throughout the design. If that shape then changes but is still

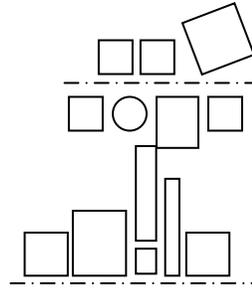


recognizable it demonstrates rhythm.

**Transformation:** A form that repeats can also be said to show transformation if it looks a little different each time. Sometimes shapes transform by getting bigger or smaller but they might also rotate, stretch, or morph into a different shape.



**Datum:** A datum is a form which ties together or anchors all other elements of the design. It can be a line, like a road with houses arranged along its length, a flat plane, or even a 3D space. Many buildings all share a plane which acts as a clear datum—it's the ground on which they are built!



## Ordering Principles

Keep in mind that some ordering principles are similar and can be hard to distinguish, because these terms are all interrelated and frequently overlap. The easiest way to find ordering principles is to look at a building, a floor plan, or a map and see what catches your eye; then ask yourself: What part of the building is most noticeable? What did the architect do to make it stand out?



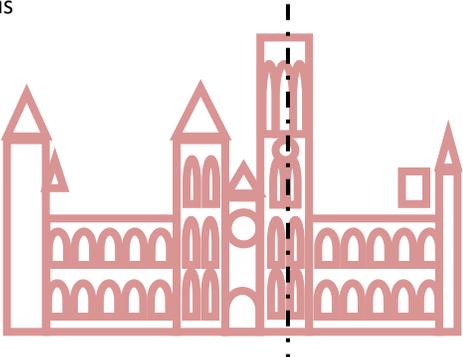
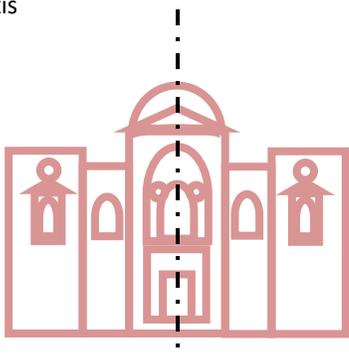
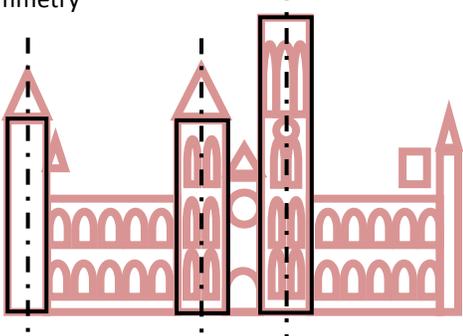
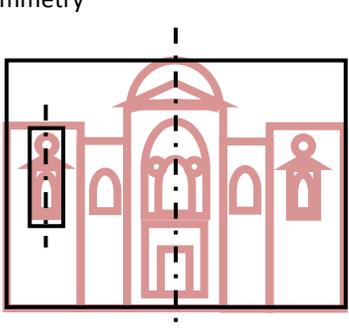
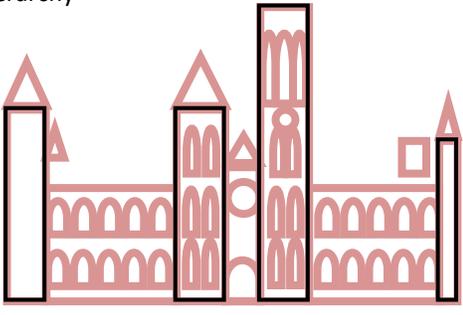
For example, the National Mall in Washington DC is an **axis** that runs from the Capitol Building to the Lincoln Memorial and divides the city into four distinct quadrants. It is also a **datum** along which many of the Smithsonian's museums are arranged. The Mall itself is a track of lawns and paths arranged within a **symmetrical** rectangle. The Lincoln memorial, the Washington Monument, and the Capitol stand out because of their size, distinctive shapes, and the clear line that connects them. These factors demonstrate the

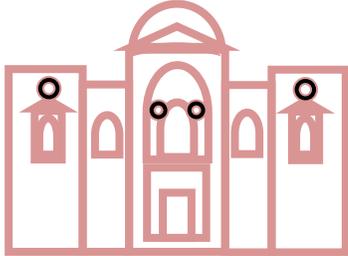
way that city planners established a **hierarchy** on the Mall.

<b>Renwick's Use of Ordering Principles</b>	
Have students highlight Renwick's use of ordering principles.	
<p>Axis</p> 	<p>Axis</p> 
<p>Symmetry</p> 	<p>Symmetry</p> 
<p>Hierarchy</p> 	<p>Hierarchy</p> 

<p>Repetition/Rhythm</p> 	<p>Repetition/Rhythm</p> 
<p>Transformation</p> 	<p>Transformation</p> 
<p>Datum</p> 	<p>Datum</p> 

### Renwick's Use of Ordering Principles (Teacher's Reference)

<p>Axis</p> 	<p>Axis</p> 
<p>Symmetry</p> 	<p>Symmetry</p> 
<p>Hierarchy</p> 	<p>Hierarchy</p> 

<p>Repetition/Rhythm</p> 	<p>Repetition/Rhythm</p> 
<p>Transformation</p> 	<p>Transformation</p> 
<p>Datum</p> 	<p>Datum</p> 

### **Additional Student Exercise**

Have your students draw an outline of your school building or a nearby building with interesting architecture, showing major architectural elements such as windows, columns, and doors. Have them then identify the major shapes, symmetry and asymmetry, hierarchy and transformation, and note where the architect used these ordering principles. What is the datum that holds the design together?