



13 Architects Children Should Know

1296 Construction started on the Basilica of Santa Maria del Fiore, Florence

1379 The pope moves from exile in Avignon, France back to the Vatican in Rome

1418–1428 San Lorenzo, Florence

1360

1365

1370

1375

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1400

1405

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1415



Dome of the Basilica of Santa Maria del Fiore,
1420–1436, Florence

The fascinating thing about Brunelleschi's dome is that there are actually two of them: the one inside that supports all the weight and the outer one that protects the inner one. This amazing construction took 16 years to build.



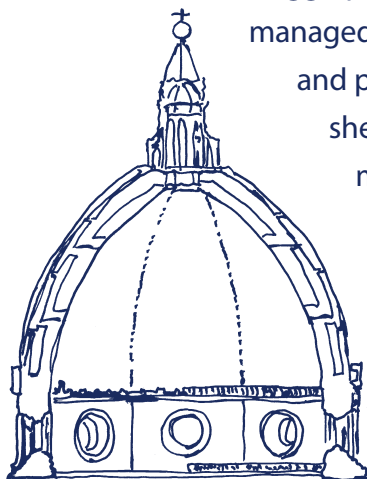
Filippo Brunelleschi

Brunelleschi was a goldsmith by trade, but he was much more interested in buildings—especially the buildings of antiquity*. Who would have thought that a broken egg would mark the beginning of his success story as an architect?

When building work started on the Basilica of Santa Maria del Fiore in Florence in 1296, everyone knew it would be among the biggest cathedrals in Christendom. Yet when the church was nearly finished, the builders realized they didn't have a clue how to construct its huge dome. The only dome of this size was on the Pantheon in Rome, and it was over 1,000 years old. Brunelleschi had studied this building in detail, and he knew how to build something like it in Florence.

But the city leaders did not trust Filippo at first, so they organized a competition in 1418. Whoever came up with the best idea for how to build such an enormous dome would get the commission. Brunelleschi knew the solution, but he was only willing to reveal it to the person who could rest an egg upright on top of a marble slab. Nobody in Florence

managed to do this trick. Finally, Brunelleschi took the egg and pressed it down so hard against the slab that the shell flattened firmly and the egg stood still. The other master builders got very worked up, claiming they could have done the same thing. They probably could have, of course, but they simply didn't come up with the idea. As such, it was Filippo who went on to build the dome of the cathedral.



Born

1377 in Florence

Died

1446 in Florence, buried in the Cathedral of Florence

Education

Goldsmith

Professions

Sculptor, Architect, Inventor

Architectural Style

Renaissance*

Good to know

Brunelleschi helped make another discovery that is still being used in art schools and by architects to this day: central perspective*. This is a way of drawing people, streets, and houses so that they look three-dimensional—even though we can only see them on flat paper.

1418–1428 San Lorenzo, Florence



1420–1436
Cathedral
Dome, Florence

1421–1455
Hospital of the
Innocents, Florence



c. 1441–1460
Pazzi-Chapel,
Florence



1360

1370

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1470



La Rotonda,
1566–1591, Vicenza

The Villa sits gracefully on its small hill. It has four temple facades, one for each side. The first time you see this building, you might not discover where the entrance exists.

c. 1510 Copernicus determines that the Earth revolves around the Sun

1517 Martin Luther confronts the Catholic church with his Ninety-Five Theses

1566–1591 La Rotonda, Vicenza

1577–1592 Il Redentore, Venice

1480

1490

1500

1510

1520

1530

1540

1550

1560

1570

1580

1590

Andrea Palladio

Andrea di Piero della Gondola (Andrea Palladio) was the son of a stonemason—a highly trained construction worker. Palladio worked as a stonemason himself and as a sculptor before becoming an architect.

Palladio may have been a stonemason his entire life had not one of his sponsors discovered his extraordinary talent. Conte Trissino taught Palladio everything about antiquity*. The Conte even traveled with him to Rome so he could study the ancient buildings. He also introduced him to important people who soon wanted the young architect to design their houses. Palladio developed a special way of designing buildings: he used elements of architecture from antiquity*. A very important aspect of this style was his so-called temple fronts or facades, which consisted of columns and triangular tops called pediments. The name “temple front” originates from ancient Greek and Roman temples (or religious buildings) that had similar columns and pediments to signify their special importance.

Palladio did not build temples, however, because people in his day did not worship ancient Greek and Roman gods. Instead, Andrea built mostly villas, which were large country houses for rich people. The families who commissioned these buildings loved Palladio’s temple facades, because they gave their villas a much more elegant appearance. So what was once used in antiquity as a way of worshipping gods was now used by Palladio for making “normal” houses. This idea made Palladio’s style all the rage in northern Italy. His most famous villa is



Born

1508 in Padua as
Andrea di Piero della
Gondola

Died

1580 in Vicenza

Education

Stonemason,
Sculptor

Professions

Stonemason,
Sculptor, Architect

Architectural Style

Renaissance*

We do not know a great deal about Palladio's personal life. He is remembered mostly through his buildings, which still influence architects today. As it happens, Palladio never actually built a villa for himself. If you could design your very own villa, how would it look?



La Rotonda near Vicenza. It is so named because of its circular interior and the dome (or "Rotonda") above.



Palladio did not just build villas. He also designed a famous theatre in Vicenza and two big churches in Venice. Both of the churches have beautiful temple facades that can be seen from Venice's St. Mark's Square. Some of Palladio's greatest designs were never even built—including designs for Venice's famous Rialto Bridge and Doge's Palace.

Palladio's ideas became so popular, he wrote a book about them: "The Four Books of Architecture". Here he explained how to build not only these villas but also churches and even bridges. Architects all over the world would read his book and use its ideas. If you take a close look, you will recognize Palladio's style in all kinds of buildings. Even the home of the United States President, the White House, is a "Palladian" building.

Good to know
Andrea was given the name Palladio by Giangiorgio Trissino, who had sponsored him. The name is meant to remind us of Pallas Athena, the Greek goddess of wisdom and art.



**Il Redentore
(Church of the Most
Holy Redeemer),
1577–1592, Venice**

This church in Venice was built as way of saying thanks to God for liberating the city from the plague*. Even today, people in Venice process from the city center in St. Mark's Square to the church, which lies over a canal. This procession takes place over a temporary "bridge" made of boats, and it has occurred every third Sunday in July since 1577.

1566–1591 La Rotonda, Vicenza



1577–1592 Il Redentore, Venice

1618–1648 Thirty Years' War

1616 William Shakespeare dies



1570

1575

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1600

1605

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1625

**Born**

1598 in Naples

Died

1680 in Rome

Training

Sculptor

ProfessionsSculptor, Architect,
Painter, Dramatist,
Caricaturist***Building Style**

Baroque*

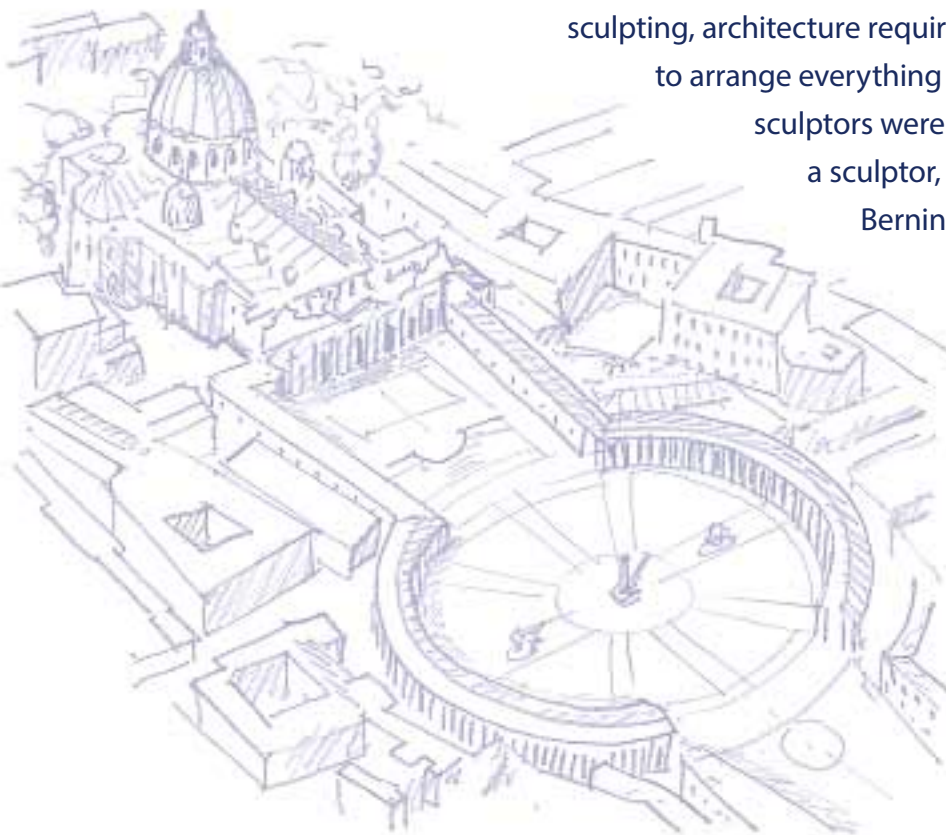
Gianlorenzo Bernini

Gianlorenzo Bernini could do everything. He was the most famous sculptor of his day, and he could also paint, write plays, and make funny drawings called caricatures*. Bernini's buildings, too, are among the greatest of the 1600s.

With all of these special talents, Bernini attracted many important clients in Rome from an early age. His sculptures look quite different from those of the Renaissance* period, which often appear stiff and formal. Bernini's figures seem to come alive, and you can often recognize a sense of fear and determination in them.

Communicating feelings is a characteristic of art from the Baroque* period, the time when Bernini lived. And while Gianlorenzo was never actually trained as an architect, he still got commissions as a master builder. Like sculpting, architecture requires you to focus on form and shape and to arrange everything so that it all fits together. This is why many sculptors were also architects in earlier times. Michelangelo a sculptor, worked on many buildings in Rome before Bernini was born.

The first great work Bernini produced as an architect was the Baldachin*. It stands over the grave of St. Peter in St. Peter's Basilica, which is now in Vatican City. But Bernini did not do this work alone. He had the help of another great architect named Francesco Borromini. With its turned columns and curved roof, the Baldachin appears graceful and almost





1624–1633 Baldachin* above
St. Peter's grave, Rome

1656–1667
St. Peter's Square,
Rome



1658–1671 Sant'Andrea
al Quirinale church,
Rome

1630 1635 1640 1645 1650 1655 1660 1665 1670 1675 1680 1685



**Baldachin* above
the Grave of St. Peter,
1624–1633, Rome**

It's hard to tell that the Baldachin is almost 98 feet (30 meters) high, because St. Peter's Basilica itself is so massive. The church is, after all, the biggest in Christendom.

Quiz
Which famous architect
helped Bernini build
the Baldachin?
(Answer on page 46)



**St. Peter's Square
(Vatican Square),
1656–1667, Rome**

At 950 feet (290 meters) long and 787 feet (240 meters) wide, Vatican Square is enormous. The colonnades consist of 284 pillars, each one measuring 50 feet (15 meters) in height. On top of the pillars are 144 figures of holy saints, each of them 10 feet (3 meters) tall. As a sculptor, Bernini created many of them himself.

moving. It is actually 98 feet (30 meters) high, which is about the height of an eight-story building.

Bernini created another important monument for St. Peter's: the huge plaza (or forecourt) that stands in front of the church. Even here you can tell that Bernini was a sculptor. The curved rows of columns on the square, which are called colonnades, seem like enormous arms extending from the church. In this way, Bernini was looking to show how the church welcomes all people and brings them into its community.

In 1665, Bernini was summoned to Paris by King Louis XIV of France, because he wanted him to build a new palace. His designs were not accepted by the King, but they had a great influence on many other architects. One of these artists was Christopher Wren (see page 14 /15), whom he got to know in Paris.



**Sant'Andrea al Quirinale,
(Church of St. Andrew
at the Quirinal),
1658–1671, Rome**

This tiny church has an oval ground plan*, which was totally new for the time. Even the staircase is circular and covered by a curved canopy.

**Sant'Andrea al Quirinale,
(Church of St. Andrew
at the Quirinal),
Ground plan**

The building's oval ground plan and curving shapes are typical of the Baroque* period.



1624–1633
Baldachin* above
St. Peter's grave,
Rome

1660–1685 Reign of King Charles II
1656–1667 St. Peter's Square, Rome

1661 Wren invents a rain gauge sensor for measuring rainfall
1665–1666 Great Plague* of London
1666 Great Fire of London

1625

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1645

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1665

1670

1675

1680



Christopher Wren

Although Christopher Wren was a Professor of Astronomy in Oxford University, he decided he would much prefer to work as an architect.

Born

1632 in East-Knoyle,
England

Died

1723 in Hampton
Court, buried in
St. Paul's Cathedral,
London

Study

Mathematics,
Astronomy

Professions

Professor of
Astronomy, Architect

Architectural Style

English Baroque*

Wren had already built a theatre in Oxford and a college in Cambridge when a fire broke out at a London bakery in September 1666. This fire spread throughout the city, leaving much of London in debris and ash. Over 13,000 houses and 87 churches were burnt to the ground, and many streets were destroyed.

Soon after the Great Fire, English King Charles II put a team together that would be responsible for reconstructing the city. One team member was Christopher Wren. Charles and Christopher knew each other well because they used to play together as children. And the king knew that Wren was not only good with mathematics and astronomy, but also with architecture.

Wren got right to work and designed plans for rebuilding the entire city. Up until his death in 1723, Wren built 52 churches that all varied in appearance. Today, 15 of these churches are still standing. Among them is the most beautiful and biggest of them all: St. Paul's Cathedral, one of London's most important landmarks.

Good to know

Christopher Wren's style looks a little like Renaissance* architecture. This is because he studied "The Four Books of Architecture" by Palladio, as well as drawings by many other famous architects, whom he wanted to imitate. And thankfully he achieved his goals. Wren's own cathedral—and above all its dome—would itself be imitated by later architects.

Quiz

Which measuring device still in use today did Christopher Wren invent?

(Answer on page 46)



1675–1709 St. Paul's
Cathedral, London



1712 Thomas Newcomen creates
the first practical steam engine

1685

1690

1695

1700

1705

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1715

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1725

1730

1735

1740



St. Paul's Cathedral,
1675–1709, London

With its mighty dome and two towers, St. Paul's was completed in 1709. It took only about 35 years to build the church, which was remarkably quick for such a giant building. Wren is one of the few architects to witness the completion of a cathedral in his lifetime. He was, however, almost 80 years old by that time.