

Careers in Three-Dimensional Art and Education

Vocabulary

architect
interior designer
package designer
museum curators

Designing three-dimensional spaces, or environments, is called environmental design. The first environmental designers were prehistoric cave dwellers who eventually moved out of their caves and into the countryside. They learned to build huts for protection and, thus, became the first architects. Today, there are many kinds of designers who plan environmental spaces. Their careers involve making homes, workspaces, and the surrounding landscape attractive and functional.

Architecture

An **architect** must *design buildings that are well constructed, aesthetically pleasing, and functional*. To function properly, a building must do what it was designed to do. Private houses and apartments must serve as comfortable homes for people. Office buildings, schools, and factories must also be comfortable, safe, efficient, and pleasant to look at. The aesthetic effect of a building is extremely important. The structure must fit into its environment and enhance or complement the community. Because modern construction technology is so complex, architects usually

specialize in particular types of buildings, such as skyscrapers, shopping malls, or homes (**Figure 14.15**).

Architects must be knowledgeable about building materials, ventilation, heating and cooling systems, plumbing, stairways, and elevators. They must know basic engineering concepts so that they do not plan structures that are impossible to build. In addition, architects must be creative, be able to make accurate mechanical drawings using a computer, have a strong background in mathematics and drafting, and be able to communicate with clients. Many architects are certified by the American Institute of Architects, or A.I.A. Entry-level jobs in architecture often include drafting and model-making.



▲ **FIGURE 14.15** Architects must be able to show their client models and full color renderings of a building before it is actually built.

MEET THE ARTIST

I. M. PEI



Chinese-American, (b. 1917)

If you have ever visited the Rock-and-Roll Hall of Fame in Cleveland, Ohio, or seen a picture of the pyramid entrance to the Louvre in Paris, you will be familiar with the work of the famous architect I.M Pei. Pei was born in Guangzhou (Canton), China, on April 26, 1917. When he was 18, he immigrated to the United States, where he studied architecture at the Massachusetts Institute of Technology and Harvard University. After World War II, he taught at Harvard for several years.

In 1956, he started his own firm, I. M. Pei & Partners. Soon, he and his company were in great demand, not just in the United States but all over the world. Pei has designed some of the largest constructions of the twentieth century.

Pei is known for approaching design problems with an innovative flair. Many of the buildings he is asked to design must meet multiple functions, such as the Rock-and-Roll Hall of Fame (**Figure 14.16**). This structure reflects the spirit of rock and roll while housing memorabilia, sound chambers, a concert hall, a film-and-video display center, an event room, and numerous other features.



▲ **FIGURE 14.16** This building must hold an extensive collection of artifacts while expressing the spirit of rock-and-roll. Do you think it serves its purpose?

I. M. Pei. *Rock-and-Roll Hall of Fame and Museum*, Cleveland, Ohio. 1995.

Urban Planning

Urban planners are professionals concerned with the care and improvement of city environments. Every major American city has an urban planner (sometimes called a city planner). This person helps control the growth and

development of a city. Some of the responsibilities of the urban planner are land use; urban renewal; and the development of harbors, city parks, and shopping malls. A good urban planner meets the needs of the community while keeping it attractive and appealing.



▲ **FIGURE 14.17** Landscape architects consider texture as an element of their designs.

Landscape Architecture

Landscape architects design playgrounds, parks, and outdoor areas around buildings and along highways. They work closely with architects and urban planners to use and improve the natural setting so that it is easy to maintain and beautiful to look at. They create designs using flowers, plants, trees, shrubs, rivers, ponds, lakes, walks, benches, and signs, as shown in **Figure 14.17**. Landscape architects work with architectural firms, government agencies, individual homeowners, and facilities such as golf courses.



▲ **FIGURE 14.18** Interior designers show their clients color swatches and other design samples.

Interior Design

An **interior designer** *plans the design and decoration of the interior spaces in homes and offices*. Successful designers use styles and materials that blend with the architecture and that please the client. They must understand decorating styles and materials. They must be able to look at an empty room and visualize the finished area. They must know the latest trends and developments in wall coverings, carpets, furniture, appliances, and lighting (**Figure 14.18**).

Because interior designers spend as much time with clients as they do at the drawing board or computer, they must have patience and good communication skills. Some designers work for individual homeowners while others plan and coordinate the interiors of department stores, offices, and hotels.

Exhibit and Display Design

Exhibit designers plan presentations of collections, temporary exhibits, and traveling shows of all types. They work for trade shows, department stores, showrooms, art galleries, and museums. They decide how objects should be arranged and lit.

Display designers, also called visual merchandisers, arrange merchandise to attract customers and persuade them to buy products or services. A display designer is an important member of a

Activity

Using Design for Display

Creating Designs for Practical Applications.

Create a bulletin board display promoting an upcoming event at school. Work with the coordinators of the event to determine the important information about the event and an appropriate color scheme.

sales team. Display designers coordinate storewide color schemes, design banners, and even create shopping bags.

Industrial Design

Industrial design is the planning of the products of industry (**Figure 14.19**). All objects—such as tools, home appliances, furniture, toys, and automobiles—must be carefully designed. These artists work closely with engineers who develop the products. Sometimes, industrial designers are asked to work on things as simple as tamper-proof caps for medicines. At other times, they are asked to work on projects as complicated as space vehicles. Industrial designers plan products based on three requirements. First, it must do



▲ **FIGURE 14.19** Industrial designers create new versions of household appliances.

the job for which it was designed. Second, it must look like it can do the job. Third, it must be visually pleasing.

Product Designer

Product designers usually specialize in one industry or product such as machinery, furniture, medical equipment, toys, or cars. Designers work in teams. For instance, planning a new automobile requires many different types of designers.

Special designers plan the outer form or body of the car. Then textile designers and plastic specialists create new interiors to go with the body. They must be certain that human needs are met, such as comfort and ease of movement. Designers must make sure that controls are within reach of the driver, without the dashboard becoming crowded or confusing. Computers help ensure that all the parts fit together correctly. This way, potential problems are identified before the vehicle goes into production.

The concept car for the redesigned Volkswagen Beetle (**Figure 14.20**) was developed by J Mays, who studied automotive design at Art Center College of Design in California. This design received the Harvard Design School annual Excellence in Design Award. Artists and engineers worked together to determine that the curves in the design help make this small car safer. Safety features include energy absorbing crush zones, pretensioning front safety belts, front and rear headrests, daytime running lights, dual airbags, and front seat-mounted side airbags. Each of these features was designed by a team who considered both the aesthetics and function of the feature and how they fit into the car as a whole. The Beetle was also designed to be an affordable passenger and commuting car. The next time you get into a car, look at the number of features that need to be accessible to the driver.



▲ **FIGURE 14.20** The curved body structure of this car is aerodynamic and provides additional headroom for all passengers.

Using computer programs, designers can translate their line drawings into three-dimensional pictures, or *renderings*. Computers are also used now to produce physical models from drawings. This enables product designers to meet the requirements of industrial design more quickly and efficiently.

Package Designer

A **package designer** produces the containers that attract consumers. They make boxes, tubes, bottles, shopping bags, and other kinds of containers. They use shape, color, and graphics to make packages unique and appealing. Package designers must consider package function. For example, when pill bottles first came on the market, the caps were so easy to remove that children were able to open them. Designers had to invent a cap that was childproof but could be opened by an adult. It requires imagination and ingenuity to combine the visual, functional, and safety criteria needed to design for consumers.



Fashion Designer

Fashion designers plan and create clothing, hats, handbags, shoes, and jewelry (**Figure 14.21**). They must know the appropriate materials to use for the articles being designed. They must also consider comfort and the way the human body moves when creating fashion designs. High-fashion designers create very expensive, one-of-a-kind originals. Fashion designers also work for manufacturers who make affordable, mass-produced clothes. Pattern makers, cutters, tailors, technical designers, and factory workers complete the team. Graduates from college-level fashion design programs enter the industry as assistant designers or fashion illustrators.

Art Director

In film, television, and theater, an art director works with set, costume, and lighting directors, as well as makeup artists and hairstylists, to bring the visual elements of the show together (**Figure 14.22**). Art directors should know art history as well as the special techniques of their craft. If a film or play is set in the past, the setting, furniture, costumes, and hairstyles must correctly reflect that time period.

◀ **FIGURE 14.21** Fashion designers work year round to create new looks. Anyone considering a career in this area must be comfortable working creatively under tight deadlines.



◀ **FIGURE 14.22** Art directors coordinate the many visual elements of a film or television show.

A set or stage designer is an artist who is responsible for planning the backdrops and many of the props for a production. He or she oversees a team of artists who prepare the stage or set for the production. The set designer works with the prop master, who supplies everything the actors use during the production. The costume designer helps tell the story, creating clothing that is appropriate to the time and setting of the production (**Figure 14.23**). For productions that travel, the work of the art director and set designer may include how to design sets that can be taken apart, moved, and rebuilt. They may consult with engineers and architects and work with property designers and location planners. Art directors and set designers often begin their careers as production assistants.



▲ **FIGURE 14.23** Can you tell the historical period for which these costumes were designed?

Art Education

Some art-related careers combine an interest in art with an interest in education. Teachers, art therapists, and museum curators and designers all use their training in different ways. Artistically inclined people who want to help others may find careers in education rewarding and fulfilling.

Art Teacher

Art teachers share their artistic knowledge and skills with students. They work in elementary, middle, or high schools as well as colleges. Art teachers help students learn to make aesthetic judgments and to develop their artistic skills and talents. Some teachers specialize in art history and help students learn about art. Many art teachers spend time outside the classroom in their own studios. Teaching art in public schools requires a college degree, advanced training, and often a teaching certificate.

Art Therapist

Art therapists use art to help people with emotional and physical problems. They help physically challenged children and adults learn to explore the senses of vision and touch through artistic play and creation. An art therapist might help someone with limited use of their hands learn to mold and model clay, using special adaptive equipment. He or she might help a child with sensory problems learn what different textures feel like and how to tolerate them.

Art therapists also help patients with mental and emotional problems change their behavior in a positive way. They show them how to express themselves in a constructive way through art (**Figure 14.24**).

Art therapists may have physical therapy or psychological training and usually work with professionals in these fields. They work in medical and psychiatric hospitals, community centers, physical rehabilitation programs, drug and alcohol treatment centers, schools, and prisons.

Museum Curator and Designer

Museums house collections of paintings, sculpture, crafts, costumes, books, jewelry, and artifacts. **Museum curators**, who are usually trained in art history, *oversee the operations of museums*. They organize the collections and are responsible for recommending artwork that fits in with the theme or focus of the museum (**Figure 14.25**). Museum designers assemble and display these museum collections. Some museums publish books that contain photographs of the objects in their collections, which requires the help of the curator and designers.



▲ **FIGURE 14.24** Art therapists help children explore their emotions through creative expression.



▲ **FIGURE 14.25** Museum curators guide students through museum exhibitions.

Fine Artists

Some artists choose to work independently as painters, sculptors, printmakers, weavers, or jewelers (**Figure 14.26**). Such artists create art on their own terms or are paid (commissioned) to create a certain piece of art. Some artists find public or private grants to fund their work. Many fine artists need a second job to help pay their living expenses. Some fine artists work in commercial art fields to supplement their income. Many teach in schools and colleges. Some, like Jacob Lawrence (Figure 4.19 on page 80), continue teaching even after they have become financially successful because they feel that the ongoing interaction with art students enhances their creative thinking.

Thinking About an Art or Design Career

Are you suited for a career in the art world? It may be too soon for you to make a final decision about your future. However, art can be pursued and enjoyed throughout your life as either a career or as an avocational interest. *Avocational* means not related to a job or career. Studying or creating art as a hobby can provide many rewards. Learning about art in school or at museums enriches your life. Making art projects, such as paintings or pottery, can be fun and relaxing.

If you decide you want a career in art, you should begin working toward that goal while in high school. Practice your skills. Study the great artists. Experiment with art-related computer programs. Talk with your art teacher or guidance counselor for advice. Some colleges offer summer programs for high school students. Research the different options you can pursue after high school. Look for schools that offer a specific area you are interested in, such as fine art, industrial design, or fashion design.



◀ **FIGURE 14.26**
The work of artists is usually classified as either fine art or applied art. Fine art, such as painting, is created to be viewed and appreciated. Applied art, such as ceramics or other craft objects, is created to be used.

Activity

Art in Your Life

Comparing Career and Avocational Opportunities in Art. From the visual art fields listed in this book, choose one that interests you. Art can be pursued as an avocation, or hobby, and as a career. Research the art field to compare and contrast ways to pursue it as an interest and as a career. Which one is best for you?



Check Your Understanding

1. Compare and contrast the art careers of architecture and landscape architecture.
2. What three requirements must a product of industrial design meet?
3. What type of artist or designer plans presentations of collections?
4. What do art therapists do?