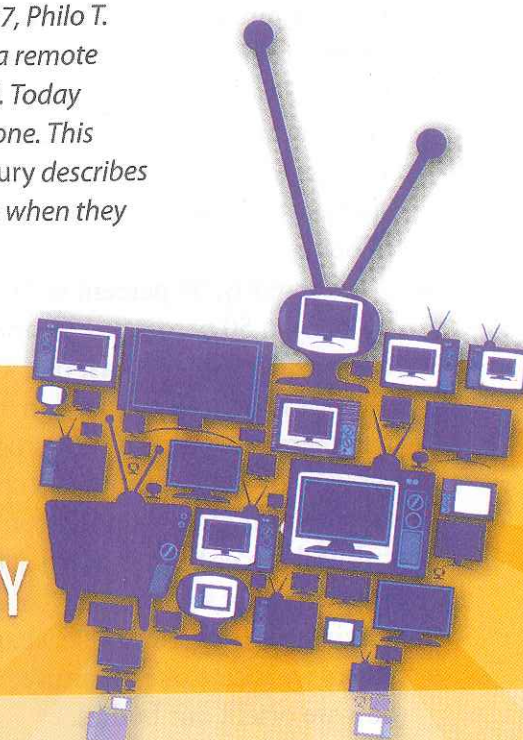


Background *It's hard to imagine, but less than 100 years ago, television as we know it didn't exist. Then in 1927, Philo T. Farnsworth successfully transmitted an image onto a remote screen. By the early 1950s, TV purchases skyrocketed. Today almost every home in the United States has at least one. This excerpt from *Life at Home in the Twenty-First Century* describes what a team of archaeologists uncovered about TVs when they examined the daily lives of 32 California families.*



from
LIFE at HOME in the TWENTY-FIRST CENTURY
 Informational Text by Jeanne E. Arnold

SETTING A PURPOSE Perhaps no other technology is more widely shared as the television. As you read, keep track of how the popularity of this consumer good has changed over time. How will archaeologists of the future track its significance? Write down any questions you have while reading.

Television and Daily Life

In North America, and in as few as three generations, mass media broadcast by analog and digital signal has all but replaced oral history and become the primary conveyor of culturally shared ideas. Broadcast communication, particularly television-streamed content, figures so prominently in economic decisions, political outcomes, and moral reasoning that even at the height of the last U.S. recession, TV advertising expenditures exceeded \$50 billion.

Television is now so intricately woven into the fabric of the American family experience that few children born during the last two decades will be able to imagine a social world that

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has not been partly shaped by the imagery, discourse, and ideas originating from television programming. In fact, many twenty-first century children are born in the physical presence of a TV: most labor, delivery, and recovery rooms in the U.S. now feature large, wall-mounted flat-panel sets. That TVs are witness to such intimate and emotionally bonding experiences speaks volumes about televisions and the American way of being.

²⁰ Currently, 99 percent of U.S. households own a TV, and more than 50 percent own three or more. All of the families in our study have at least one TV, and most have two or more. One set is typically located in a large space used by all family members, such as the living room, family room, or den. The set used by the collective is a compelling example of an object that is not merely a tangible product of otherwise invisible cultural forces but rather an agentive¹ participant in the daily production of social lives. The introduction of a new TV to a living room, for example, shapes the decisions underlying where we locate our furniture, where we direct our gaze, and how we orient our bodies.

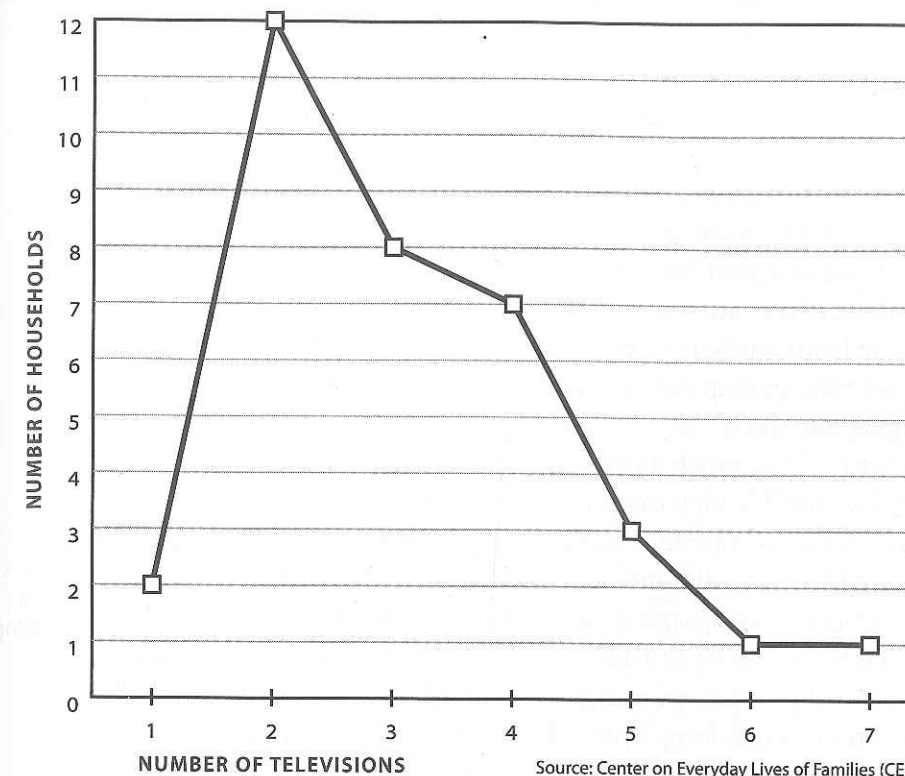
At some deeper cognitive level, our relationship to the TV—which includes a relationship to the object itself but also our personal experiences centering on TV media—even shapes the ways that we relate to our built spaces. Our photographs of living room assemblages² repeatedly reveal spaces organized around televisions rather than spaces with other primary affordances, such as face-to-face conversation. For all of its influence on the design and organization of space, the TV may as well be a hearth,³ which until quite recently in human history exerted the most influence on the spatial distribution of social interactions and activities inside homes. Indeed, families often locate the TV immediately adjacent to a wood-burning stove or fireplace, and new homes feature recessed fireplace-like nooks designed for television sets. The TV has ascended to the rank of essential major appliance (alongside the refrigerator, clothes washer, and dryer) around which builders and architects imagine the designs of residential spaces.

¹ **agentive:** having the power to cause an effect.

² **assemblages:** collections of people or things.

³ **hearth:** the brick or cement floor of a fireplace that extends into a room.

LOS ANGELES HOUSEHOLDS AND TV OWNERSHIP



Source: Center on Everyday Lives of Families (CELFF)

This graph is based on data about TV ownership among 32 California families. The data was gathered by researchers from the University of California, Los Angeles (UCLA), and Connecticut College.

⁵⁰ Families now also routinely equip various bedrooms with televisions. Fully 25 of the 32 CELFF⁴ families (78 percent) have a TV in the parents' bedroom, and 14 families (47 percent) place a TV in one or more of the bedrooms used by children. Researchers at the Kaiser Family Foundation surveyed 1,051 U.S. households with young children and found that 43 percent place a TV in at least one child's bedroom.

The same Kaiser-funded project reveals that 87 percent of children age four to six years are able to turn on the TV without assistance. Most two- and three-year-olds can do the

⁴ **CELFF:** the Center on the Everyday Lives of Families at the University of California at Los Angeles, which studies how families approach the challenges of everyday life.

60 same (82 percent), and the majority of children belonging to both age groups are capable of changing the channel. Suffice it to say that American children learn how to operate and engage with the TV at a very young age, a fact that has motivated more than 4,000 studies addressing the impacts of TV on children, education, and the social lives of families.

These impacts, however, are debated. Some researchers associate TV viewing with reduced social interaction, while others report the opposite and even see evidence for families' use of TV time as a platform for togetherness. Research based
70 on our unique observational data sets is new to the discussion and actually lends support to both generalizations, reflecting the complex relationship Americans have with television. For example, our study shows that families are not actively engaging with TV as much as we might otherwise predict. Attentive, focused TV viewing accounts for only 11 percent of all primary person-centered scan sampling observations, and the careful coding of 380 hours of videotape (derived from our observational videography) reveals that families engage with TV media on weekday afternoons and evenings for an
80 average daily total of just 46 minutes (although the TV may be turned on for much longer periods). Furthermore, families' viewing is usually a social experience: during about two-thirds of observations where a child or adult watches TV, at least one other family member is present.

However, children are slightly more likely than their parents to watch TV alone. Kids view solo in about 17 percent of the cases where we record TV viewing as the primary activity, mothers and fathers watch alone in only 6 percent and 13 percent of the cases, respectively. We also found that
90 children much more frequently watch TV in a bedroom (34 percent of primary TV observations, alone or with others) than either of their parents (9 percent for mothers and 10 percent for fathers). Indeed, the socially isolating potential of TV appears higher among families that have more than one TV set in the home. Children in families that have TVs in one or more bedroom spaces are more likely to watch TV alone than children in families that do not have a TV in a child's or parents' bedroom.

observation
(ˈɒbzəˈvʌʃən) *n.*
An *observation* is the act of watching something.

“Some researchers associate TV viewing with reduced social interaction.”

The Material Legacy of TV

The **proliferation** of video media technology since the debut
100 of network television in 1946 has had a profound influence on American lifestyles. Indeed, few Americans can imagine everyday life without access to TV. Television is so entrenched in popular culture that we are surprised when we meet people who do not have at least one set. In 1947, U.S. households owned 44,000 TVs, just one set per 3,275 people. During the early 2000s, people purchased about 31 million TVs annually in the U.S., or one new TV for every nine Americans each year.

proliferation
(prə-ˈlɪf-ər-ˈrɑːʃən) *n.*
A *proliferation* is the fast growth of something.

Of course, sales figures do not reflect the number of
110 sets already found in what archaeologists regard as systemic context (here, the home): the behavioral system in which artifacts⁵ participate in everyday life. The full inventory of TVs emerges only when the count includes the sets purchased in years past and still in the house. Only some older TVs are replaced. As is true for most artifacts, the life history of each individual television is entangled in the changing ways that families use them, the availability of similar artifacts in the home, and the desire for newer forms of visual media technologies.

120 Eventually the life history of a TV, or at least the portion of the life history that overlaps with family use, comes to an end. At that point, the artifact exits the systemic context and enters an archaeological context, a state in which interaction is primarily with the natural environment, such as the city dump. The Environmental Protection Agency estimates that

⁵ **artifacts:** objects made by humans.

during the mid-2000s, Americans discarded an average of 1.5 billion pounds of TVs each year, in the range of 25 to 27 million sets annually, of which only 4 to 4.5 million were collected for domestic recycling.

An Archaeology of TVs

130 The rate at which TV technology evolves and the sheer volume of television sets people discard both suggest that this artifact will be particularly useful for teasing out discrete generations of household refuse from the materially complex and jumbled strata⁶ that constitute our **municipal** landfills. Archaeologists rely on seriation—the sequencing of functionally similar artifacts based on stylistic differences—as a method for ascertaining relative chronology⁷ at archaeological sites. Although seriation cannot be used to pinpoint a specific date, it places older and younger materials in order based on the simple assumption that object styles change over time. Frequency seriation thus determines the relative age of each layer.

140 We expect 1980s-era landfill strata to contain high proportions of black-and-white TVs and color CRT TV sets, but very low proportions of rear-projection TVs and no flat panels. Garbage layers forming today will contain few black-and-white sets, numerous color CRT sets, and (assuming a continued low rate of recycling) an increasing number of flat panels, assuming that household disposal of any particular TV may postdate its purchase by a decade or more.

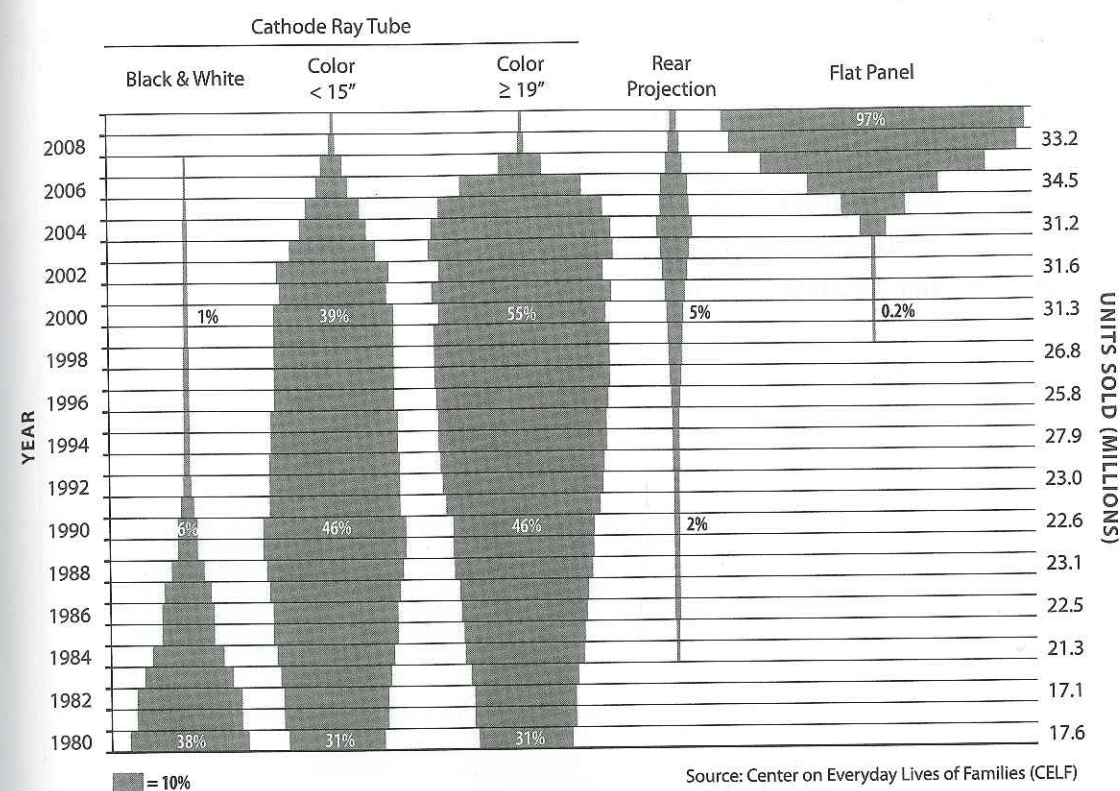
150 Archaeologists often use battleship curves to depict frequency seriation patterns. These graphs are particularly useful for showing changes in the proportion of different technological styles of artifacts over time. Interpretation of the curves is straightforward: the width of a horizontal bar for each year represents a percentage of a total count (see right axis opposite). In 1990, for example, 22.6 million TVs were purchased in the U.S. Only 6 percent were black-and-white sets, whereas 46 percent were color CRT models less than 19 inches in size and another 46 percent were large color CRT models. Just 2 percent were the new rear-projection models, and flat panels had not yet debuted.

⁶ **strata**: layers.

⁷ **chronology** (krə-nŏl'ə-jē): the order of events in time.

municipal
(myŭn-nīs'ə-pəl) *adj.*
If something is *municipal*, it relates to a city or town.

DISPOSAL RATE OF TELEVISIONS



This battleship curve is a graphic aid used by archaeologists to record an artifact's patterns of use across a period of time. Here, the battleship curve indicates periods of popularity and fading use of different styles of TVs.

170 The shape of each battleship curve is particularly telling, providing an at-a-glance account of changes in the popularity of an artifact style or type over the course of its history. After the artifact's introduction, curves typically become gradually wider as the artifact style becomes more popular. As newer styles enter the material system, the first curve **tapers** and eventually terminates altogether. The maximum widths and rates of tapering (in both directions) summarize the popularity, rapidity of change in preference or supply, and persistence through time.

taper
(tā'pər) *v.* When things *taper*, they gradually get thinner.

In the complex story of U.S. television consumption, several well-defined patterns emerge. Black-and-white TV sets persisted until the early 2000s, long after color CRT sets began dominating household assemblages, and rear-projection units enjoyed a long lifespan but never gained popularity. When

significantly better TV technology emerged in the form of flat-panel models, color CRT models declined precipitously, producing the narrow profiles at the tops of the CRT battleships. The adoption rate of flat-panel sets has been steep and unprecedented in the domain of television technology, expanding as CRT use plummeted.

COLLABORATIVE DISCUSSION When future archaeologists study life in the past—the early twenty-first century—what clues will TV sets provide? Talk about your ideas with other group members.

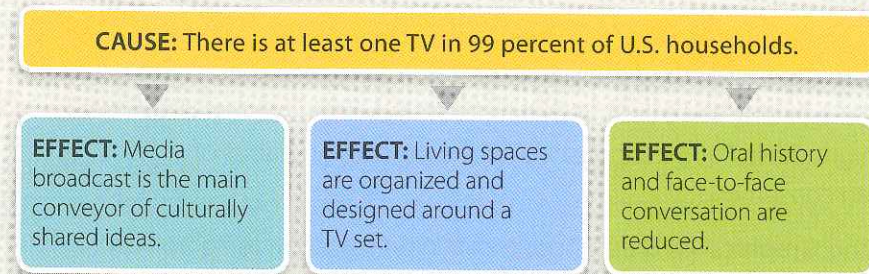
precipitous
(prĭ-sĭp'ĭ-təs) *adj.*
When something is *precipitous*, it is very steep, like a cliff.

Analyze Structure: Cause and Effect

COMMON CORE RI 2, RI 5

The **structure** of a text is the way it is put together. Authors of informational texts organize their central ideas in paragraphs, and may organize the paragraphs in sections with **headings**. Within the sections, you can identify **patterns of organization**, a particular arrangement of ideas and information. For example, a **cause-and-effect** pattern of organization shows one or more events (causes) leading to one or more other events (effects).

This chart shows a single cause leading to multiple effects, based on details in the first four paragraphs of the section “Television and Daily Life” in the informational text you’ve just read.



Restate one of these cause-and-effect connections, using the phrase *as a result*.

Cite Evidence

COMMON CORE RI 1, RI 2

Graphic aids are diagrams, graphs, maps, and other visual tools that are printed, handwritten, or drawn. In informational texts, graphic aids organize, simplify, and summarize information. Here are a few types of graphic aids:

- Line graphs show numerical quantities across time and can indicate trends. The **vertical axis** of a graph indicates frequency. The **horizontal axis** shows the categories being considered.
- Bar graphs use horizontal and vertical bars to show or compare categories of information.
- Picture graphs convey information through symbols instead of lines and bars.

As you read, you can use evidence from both the text and the graphic aids to **draw a conclusion**—make a judgment based on evidence and reasoning.

Reread lines 157–162. Examine the graph on page 227. What conclusion can you draw from the text and the graph about flat-panel TV sets?

Analyzing the Text

COMMON CORE RI 1, RI 2, RI 5, W 2, W 7, W 8

Cite Text Evidence Support your responses with evidence from the text.

- Cite Evidence** Reread the first paragraph. What causes more than \$50 billion of TV advertising expenditures?
- Infer** What information about American families were the archaeologists gathering?
- Compare** Reread lines 39–46. According to the author, in what ways is a TV like a hearth?
- Summarize** Reread lines 66–99. What are the most important findings in this study of the impacts of TV?
- Infer** According to the details in “The Material Legacy of TV” section, during the mid-2000s, 25–27 million American-owned sets were discarded, but only 4–4.5 million were collected in domestic recycling. What might these figures suggest about the purchasing habits of American consumers?
- Analyzing Graphics** Of the 32 households represented in the graph on page 223, what number of households own only two TVs? What makes that figure worth noting?
- Predict** Look at the graph of battleship curves. How do you think the graph might change in the years ahead?
- Draw Conclusions** What do archaeologists look for as they study artifacts, and what does TV have to do with artifacts?

PERFORMANCE TASK



Writing Activity: Essay You’ve just read that a number of different types of televisions have been available through the years. Find out about a new development in TV technology and write about it in a brief informational essay.

- Use digital or print sources about consumer electronics to research your topic.
- Take notes as you try to answer questions like: Who invented this

technology and when? How does it work? How could it change how people watch TVs? Why would consumers want to purchase it?

- Use your notes to create an outline of your ideas.
- Share your completed essay with a partner or group that has written about other new features of TVs. Discuss the different features and consumers’ attitudes toward them.

Critical Vocabulary

COMMON CORE L 6

observation
taper

proliferation
precipitous

municipal

Practice and Apply Complete each sentence to show that you understand the meaning of the bold word.

- The scientist counted each **observation** of ...
- We’ve recently had a **proliferation** of ...
- An example of a **municipal** service is ...
- To draw lines that **taper**, you ...
- A change that occurs in a **precipitous** way is ...

Vocabulary Strategy: Domain-Specific Words

The subject areas of *Life at Home in the Twenty-First Century* are sociology and archaeology. Sociology is the study of human societies. Archaeology is the study of the things left behind by past societies. When you read about any area of study, you will encounter **technical language**, terms and phrases used by specialists in a certain field or domain. Note the term *social interactions* in this quotation:

For all of its influence on the design and organization of space, the TV may as well be a hearth, which until quite recently in human history exerted the most influence on the spatial distribution of social interactions and activities inside homes.

One way to figure out the meaning is by looking at its two parts: *social* has something to do with living with other people; *interactions* are the ways people communicate with each other. But often with technical language, you need to use a print or digital dictionary to confirm the meaning. For more highly specialized terms, you might have to use resources specific to the field, such as a manual of nautical terms for language about sailing.

Practice and Apply Compare your ideas with other group members as you find and define these terms: *observational data sets* (line 70); *observations* (line 76); *systemic context* (lines 110–111).