ICON, INDEX, AND SYMBOL

An *icon* is a type of sign that physically resembles the concept or thing for which it stands. An *index* is a sign in which the relationship between the sign and what it stands for is habitual or causal. Smoke, for example, is an index for fire. A *symbol* is a sign in which the relationship between the sign and its meaning must be learned and is governed by a code or cultural convention.

Historically, religions have used icons to represent spiritual figures such as gods, saints, and angels. Because many religions believe that the full glory of a spiritual entity is not easily depicted in concrete form, religious icons carry with them a general understanding that they are lesser versions of their subjects.

Icons had a role to play in modern times as well. Otto Neurath believed a picture language could overcome the difficulties of cross-cultural communication. He created international travel icons to serve an increasingly mobile population. His work continued under other designers, including Neurath's former pupil Rudolf Modley in the 1930s and Otl Aicher in the design of wayfinding strategies for the 1972 Olympic Games (Figure 5.15). Across time, travel icons became increasingly general, losing cultural and racial detail but maintaining their original intent to help people understand content without the support of text. Cook and Shanosky's 1974 design of icons for the United States Department of Transportation is used throughout the country and makes few cultural references to anything but gender (Figure 5.16). Today, the International Organization for Standardization (ISO) publishes a guide for industry, government, and the public that attempts to create an internationally agreed upon, standard set of symbols for everything from travel to safety and security.

Figure 5.16

US Department of Transportation travel symbols, 1974 Roger Cook and Don Shanosky

Cook and Shanosky's system owes much to the 1930s legacy of Otto Neurath, whose ISOTYPE system used icons to facilitate international understanding in unfamiliar settings. The symbols are copyright free and can be downloaded by designers from the AIGA website.

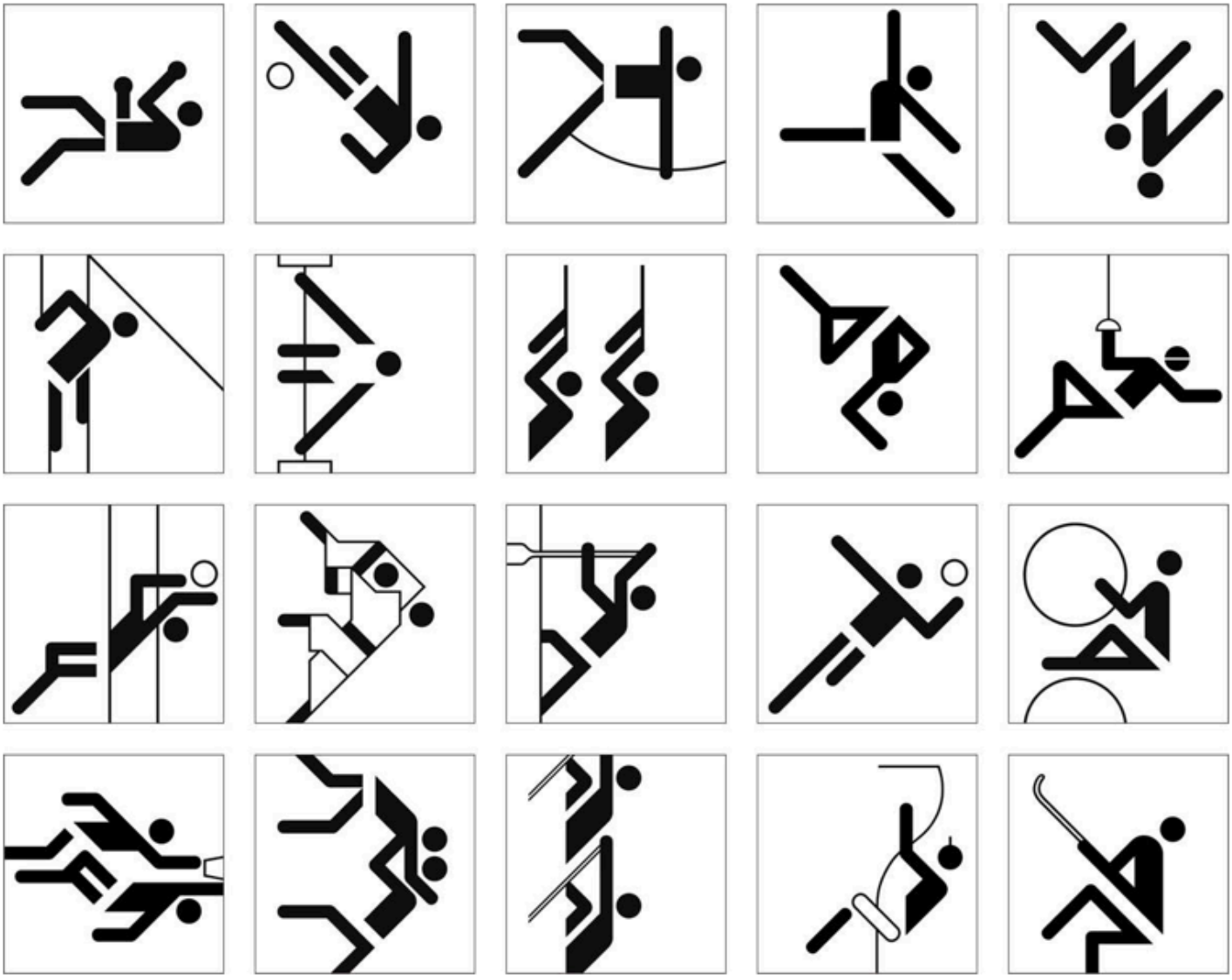


Figure 5.15
Olympic symbols, 1972 Otl Aicher (1922–1991)
Aicher, a founder of the Ulm School of Design, had a long-standing interest in sign systems. The iconic pictographs for the 1972 Munich Olympic Games set the standard for the genre. Design work for the games that followed included a similar system.

When Apple Computer introduced its graphical user interface in 1984, the term *icon* took on new meaning. Within the metaphor of the virtual *desktop*, icons were any small representations of computer functions (files, folders, disks, trash, etc.). Beginning computer users did not have to understand code in order to interact with the computer system, and over time, the visual vocabulary of these small images expanded beyond physical imitations of the things for which they stand (spinning wheels, for example). Smaller screen real estate in mobile devices and the global use of applications encourage the proliferation of these economical little signs.

An *index* is a bit more elusive a concept. We understand what it stands for by a repeated connection between the sign and its meaning or by some understanding of cause and effect. For example, when we hear a siren we know from experience that there is an emergency. When the leaves fall from the trees, we know the seasons are changing. When the light on our coffee maker is on, we know that the heating coil is warm. In this way, the communication is indirect; we use one thing to point to something else.

Electronic products use indexical signs to communicate the state of the system; a spinning wheel or an hourglass is iconic, but it also serves as an index that the computer is doing its work. The use of 0 and 1 for *off* and *on* in an array of electronic products is an index; it points to the binary code through which computers operate.

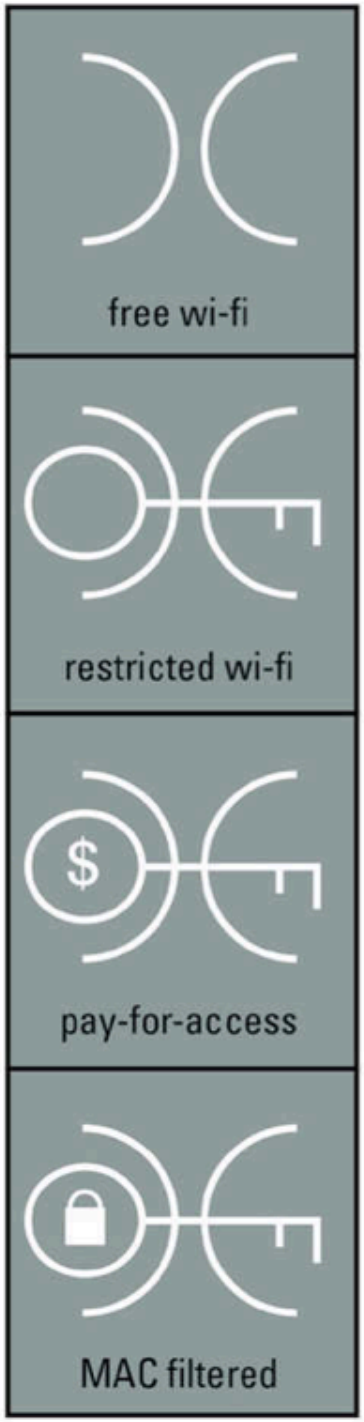
Indexical signs expand the inventory of available form in the designer's repertoire. For example, in today's culture, smoking has become synonymous with disease and early death. Anti-smoking campaigns make frequent use of this cause/effect relationship, not needing to show the cigarette to incite audience concern. A famous anti-smoking commercial in the United States showed body bags piling up at the ground level of a high-rise housing tobacco company Philip Morris, much in the way smokers cluster at the entrance to offices during a cigarette break. Cigarettes never appeared in the commercial, yet the bodies were an index for the dangers of tobacco and the company's disregard for public health.

Symbols have no apparent or natural relationship to the things they stand for. The association is learned and only significant in highly specific contexts; such meaning comes about through repeated experience that links the symbol to its meaning. The alphabet, for example, is symbolic. At one time in history letterforms may have had some iconic significance—for example, it has been suggested that the letter "A" has its origin as an ox head in Egyptian hieroglyphics. Today, however, the letters of the alphabet carry no meaning other than their role in replicating spoken sounds when combined in words. We learn that certain letter combinations in words mean certain things, but there is no physical resemblance between the words and these meanings.

During the heyday of freight train transport in the United States—between the Civil War and the Great Depression—homeless travelers, known at the time as *hobos*, marked their journeys with a series of evolving symbols that told others about safety, where to get food, and the best trains to hop. This same spirit inspires computer hackers to scrawl cryptic chalk marks on the sidewalk to identify open wireless hot spots and network nodes. Called *warchalking*, the practice uses symbols that mean something only to people aware of the code (Figure 5.17). In these examples, meaning depends entirely on cultural experience. There is little about the

symbols that resembles the physical world.

Logos make frequent use of symbolic form. These small marks bear considerable responsibility for communicating the qualities of a company or organization. In many cases, it is too difficult to describe the complex activities of the organization in pictorial form and many companies do more than one thing. So abstract symbols without iconic references stand in for intangible attributes. In some cases, the name of the company is equally abstract and serves as symbolic identification of the business. Standard Oil became ESSO in 1911 and then Exxon in 1972. Texaco started in Texas and used the star from the Texas flag as its symbol. Today, few consumers connect the star logo to the state.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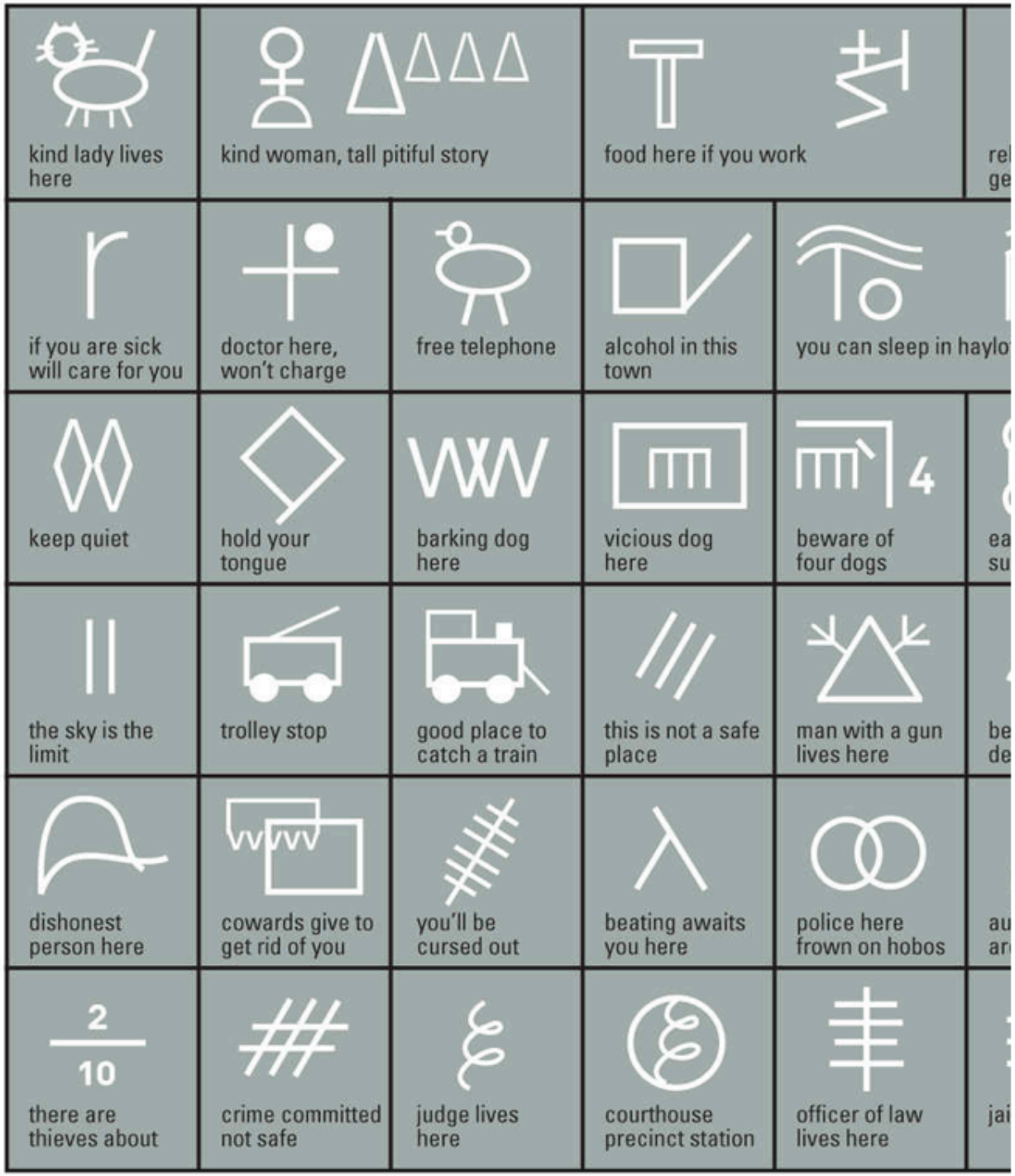
kind lady lives here
kind woman, tall pitiful story
food here if you work
if you are sick will care for you
doctor here, won't charge
free telephone
alcohol in this town
you can sleep in haylo
keep quiet
hold your tongue
barking dog here
vicious dog here
beware of four dogs
4
the sky is the limit
trolley stop
good place to catch a train
this is not a safe place
man with a gun lives here
dishonest person here
cowards give to get rid of you
you'll be cursed out
beating awaits you here
police here frown on hobos
2
10
there are thieves about
crime committed not safe
judge lives here
courthouse precinct station
officer of law lives here

Figure 5.17
Hobo and warchalking symbols

Homeless travelers have used symbols to mark the environment since the 1800s. The abstract signs tell those who follow where to find things and safe places to rest. While some are iconic in origin and indexical in purpose, many are simply the result of cultural agreement regarding their meaning. These symbols inspired the contemporary practice of warchalking in which people identify areas with open Wi-Fi access through chalk marks on the ground.

In practical use, signs can perform in more than one way. An icon can be used indexically, for example. The icons for men and women are used to point to gender-specific restrooms. The icon of a book can index the function of a shop as a bookstore. Likewise, an icon can be used symbolically. The mascots and logos of sports teams do not signify that tigers or pirates are on the playing field, only that players perform as fiercely as tigers or with the daring of pirates; icons, in this case, are used as metaphors for something else.