ask the creators of the wilder, more interesting-looking new television commercials, promotional announcements, news videos and even feature films where they found their inspiration, and their answer, more often than not, will contain the same three letters. Director Oliver Stone, when citing the antecedents of the jangled, fast-cut style he used in the movie Natural Born Killers, mentioned "commercials and MTV." Don Schneider is senior creative director of the BBDO advertising agency, which has produced some groundbreaking Pepsi commercials, including that attack on the artichoke chef and the old TV. He made a more sweeping confession: "Ninety percent of this has to do with MTV." ABC News took more than ideas from MTV; it hired one of the youth network's talented young producers, David Berrent.

MTV's influence begins, of course, with the music videos themselves—which "might be the only new popular art form in American life," Norman Mailer has suggested. But many of the network's innovations appeared as more substantive supplements to those dizzying collages of guitar strummers and visual metaphors for love. ABC wooed Berrent after executives saw his documentary Decade, a historical look, MTV-style, at the 1980s.

Decade includes a thirty-three-second segment on former President Ronald Reagan's planned "Star Wars" defense system. I make no claims for it journalistically, but in technique and style it is intriguing. An excerpt from a Reagan speech on national security is shown, along with an attack on Star Wars by the late rock musician Frank Zappa. These are sound-bites—the same (except for the use of Zappa as an expert) as might be seen in a traditional news story. But in between, Berrent placed a kind of rock video: While the phrase "guns in the sky" is sung over and over, and Zappa begins to talk, computer simulations of lasers attacking rockets are shown on screen. Those scenes, in turn, are interrupted by flashing, static images: a dollar sign, the symbol warning of possible nuclear contamination, the skull-and-crossbones symbol for danger.

Neither the word danger nor its synonyms is vocalized. Berrent clearly is relying on these flashing images not just to illustrate what is being said but to communicate their own meanings. In the introduction to that ABC documentary on churches, Roberta Goldberg, who learned from Berrent, does the same with the shot of three candles being extinguished. These images, the point is, are intended to take the place of words.

Many of the images that decorate our world have similar aspirations. Among the most interesting are the icons that increasingly crowd the edges of computer screens. Small drawings—of a file folder, for instance—first began to replace lines of text on computer displays at a research center run by the Xerox Corporation in the 1970s. The driving force behind this work was Alan Kay, a Ph.D. in computer science, whose dreams for the future of the computer, inspired in part by Marshall McLuhan, included a major role for images. Each icon used on the screen, Kay suspected, was worth not just a word but a whole sentence.

A group of Apple Computer executives and engineers made an expedition to the Xerox center in 1979. They returned with many ideas and then added some of their own. In 1983 Apple released a slow, expensive, unsuccessful, "graphics-oriented" computer named Lisa and then, the next year, a faster, relatively inexpensive, hugely successful computer, using a similar operating system, named Macintosh. The indomitable Microsoft Corporation noticed the idea (Apple suggested, in court, a different verb), and with the success of the Windows operating system in 1990, sets of icons began to appear on most computer screens.

Similar images currently express meanings on traffic signs, rest room doors, Olympic venues and biceps. Armies continue to march under images; the devout of many faiths continue to pray to them. The Pioneer 10 spacecraft, now embarked on a long journey toward the star Aldebaran, is equipped with a plaque designed to satisfy the curiosity of any aliens encountered along the way—a plaque covered not with words but with images (sketches of a naked man and woman, our solar system, the position of our sun, the hydrogen atom).

Some meanings clearly are better communicated pictorially than verbally, as David Berrent, Alan Kay and most of the world's painters and sculptors have recognized. We live, however, in a culture that, despite the proliferation of images, not only has little faith in their ability but has at times been actively antagonistic toward them.

The Old Testament, characteristically, does not mince words: "Thou
The Magic of Images

shalt not make unto thee any graven image, or any likeness of any thing that is in heaven above, or that is in the earth beneath—a commandment second only to the demand that no other gods be worshipped before the source of these commandments. An antagonism toward images first appeared here at the beginning of Western culture. It appeared, too, after the development of the alphabet in Greece: Among Plato's targets in the Republic is the painter, whom he dismissed as "a magician and imitator." A similar scorn surfaced among Muslims: Muhammed is said to have proclaimed that "the angels will not enter a temple where there are images."7

This fury was unleashed, always, by partisans of the word—written or (for Plato) spoken. Behind it was a multifaceted fear: fear, to begin with, for the word. Images—easy to understand, fun to look at—inherently threatened to turn the populace away from the deeper, more cerebral rewards of sacred writings or philosophic discourse.

There was fear too of the magic that seems to lurk in images. They steal likenesses. They do what only gods should be able to do: They recreate the living and preserve the dead. It is hard not to see this as black magic. Images allow us actually to look in on (not just hear about) the familiar from another perspective, an external perspective, often a disorienting perspective—to see ourselves, for example. They are, in this way, inherently unnatural—further evidence of magic.

Then there is the persistent "reality" issue. Images look real but are fake. They pretend to be what they are not. They lie. The portrait is a mute, lifeless substitute for the person; the idol, a primitive and superficial knockoff of the god. But that idol is also attractive and easy to see. It can distract from the more profound but more amorphous glories of the god. A painter, Plato warned, can deceive "children and fools" with mere "imitation of appearance," instead of "truth" or "real things."8 Images can entice.

Worse, in imitating "real things," images tend to devalue them. This is what the French theorist Jean Baudrillard called the "murderous capacity of images." Once we begin to lose ourselves in this world of illusions, it can begin to seem as if "truth" and "reality" are just further illusions (deserving of quotation marks). Images, on this level, are, as Baudrillard put it, "murderers of the real, murderers of their own model."9 The person is now seen as if posing for a portrait. The god is perceived as if just another idol.

"Cursed be the man who makes a graven or molten image," the Old Testament proclaims. We have reconciled ourselves to painting and sculpture by now; nevertheless, echoes of that curse can still be heard in many of the jeremiads launched by television's critics—most of whom retain an almost biblical allegiance to the word. The fear behind that curse undoubtedly was also present in some of the admonitions I hear from my parents: "You've had that thing on all evening!" "You look like you're in some kind of trance!" I'm sure it is present too in some of my children have heard from me.

For television also has been judged too easy to watch: not sufficiently challenging, cerebral or deep. It displays a similarly suspect magic: It too captures appearances. Television too is accused of being "unreal," of duping children and fools. And television too has seemed to make the world it portrays—the social and political world—less "real." It has helped fill it with "pseudo-events," to use Daniel Boorstin's often-repeated term. "The shadow has become the substance," Boorstin, with deference to Plato, warned.10

Here is a prejudice even Thoth did not face. Video is not only suspiciously new and immature; it is tainted by its reliance upon facile, shallow, unreal, cursed images.11

Oddly, it was a group of thinkers not only steeped in biblical values but influenced by Platonic (or, more precisely, neo-Platonic) values who began to question this fear and scorn.12 "We do no harm," Pope Gregory I wrote in a letter in 599, "in wishing to show the invisible by means of the visible." In the thirteenth century, Thomas Aquinas outlined an argument in support of "the institution of images in the Church."13

The power of the visible has been disparaged and then rediscovered many times since: with the development of painting in the Renaissance (including the use of perspective),14 with the woodcut and the mechanical reproduction of illustrations, with the arrival of photography.15 Over the centuries, those prepared to defend images have produced various calculations of the comparative "worth" of pictures and words. They often seem silly. However, an investigation of the potential of video must begin by confronting the lingering prejudice against images and acknowledging that there are some things images do better than words.

Images, to begin with, are marvelously (though never perfectly) accessible. Aquinas explained that the "unlettered" might learn from pictures "as if from books."16 (Christians were not prepared to ignore the needs of the uneducated, of children or of fools.) We take advantage of the accessibility of images to aid those who may not understand a particular language—visitors to the Olympics, perhaps, or any space aliens who happen upon Pioneer 10.

Another strength of images is their concision—a significant advantage for drivers speeding by or on a crowded computer screen. A native American rock drawing found near a precipitous trail in New
Mexico, for example, shows a goat who is climbing but a man on a horse who has fallen. It is difficult to imagine a sign made for the "lettered" that could communicate this warning more efficiently. David Berrent and the others who have begun flashing images on our screens are attempting to exploit this efficiency in their efforts to say a lot in a short time.

Images also can wield great power—religious, tribal, romantic, pedagogic. One of David Berrent's productions for ABC was a public-service announcement on behalf of all things, of PLUS: Project Literacy U.S. In its thirty seconds, five or six fathers are shown reading to or reading with their children, with scenes from children's books and newspapers gently superimposed on top of them. The fathers explain why this activity is important, but the public-service announcement's power comes not from their words but from the images Berrent has placed before us—images of togetherness, of caring, of warmth.

Aquinas suggested that images can be used to "excite the emotions, which are more effectually aroused by things seen than by things heard." That is why we find images in houses of worship, in military emblems and in tattoos, as well as in public-service announcements. "If the poet can kindle love in man, more so...the painter, as he can place the true image of the beloved before the lover," observed Leonardo da Vinci.

There are also understandings, sometimes deep understandings, that can be put into images—accessibly, concisely, powerfully—but are difficult to put into words. The study of botany, zoology, anatomy, geography and astronomy were all advanced during or after the Renaissance by more precise depictions, models, representations and diagrams. "Primates are visual animals," Stephen Jay Gould, the scientist and science writer, has asserted, "and we think best in pictorial or geometric terms. Words are an evolutionary afterthought."

Bill McKibben was appearing on TV. This was an event akin to the Unabomber going on-line or Ralph Nader driving a Porsche. For McKibben, a distinguished environmental writer, had just published an ardent attack on television: a book, The Age of Missing Information, based on his experience in watching every program that had appeared on a ninety-three-channel Virginia cable television system during one twenty-four-hour period. McKibben wrote of his concern not only with what TV offers but with what it does not offer: highs, lows, perspective, consciousness of the body, an awareness of death, of the seasons, of nature and of what happens "behind a face." "We use TV as we use tranquilizers," he concluded. But now here McKibben was on the Charlie Rose Show, himself part of the close.

Among those savoring the irony was the New Republic's Robert Wright, who admitted that McKibben looked more "earnest and thoughtful" than he had expected from reading reviews of his book. "TV has won for his cause one small battle that his book alone couldn't have won," Wright observed, "both because I don't have time to read it and because it is missing some kinds of information. (Some very 'natural' kinds of information, like how a person looks when saying what he believes. The written word, we sometimes forget, was invented as a crude if useful substitute for the real thing.)"

That last thought is worth freeing from parentheses. No one, as Wright noted, has been earnest enough to read through, say, all the publications to be found one day on one newsstand (an exercise likely as dispiriting as McKibben's). But we can still come to some conclusions about what the printed word lacks.

Writing's great limitation grows out of its great strength: its abstractness. It is a system of representation, or code, that represents another system of representation, another code: spoken language. The written word face—to oversimplify a bit—calls to mind the sound "fás." It is, therefore, two steps removed from that expressive skin sculpture itself. These steps back needed to be taken and have been hugely productive. Still, it is important to keep in mind the price paid for that abstraction. Printed words may take us, metaphorically at least, "behind a face"; they can help us see what we might not ordinarily see in a face; but they must work hard to tell us what a glance could about the expression on that face. In interpreting the code we make little use of our natural ability to observe: letters don't smile warmly or look intently.

This code, writing, also ignores our ability to find spatial and temporal connections between objects in the world. When we speak with each other, we can point: "That belongs over there." We can demonstrate: "Then she did this with her hair." We can indicate: "You want to give them control over this?" And we can gesture—with a look, a shrug, a grimace. All this information could alternatively be put into words; it could be written down. But in reading it, rather than seeing it, we sacrifice our ability to quickly and intuitively spot relationships—between here and there, this and that, words and gestures, ideas and expressions. We sacrifice our ability to judge earnestness and thoughtfulness, say, by observing people's faces as they speak.

Comparing what he saw on those ninety-three channels to what his senses can pick up in nature or at a circus, McKibben moaned that we are "starved on television's visual Pritikin regimen." This is a point I am anxious to debate. But for the moment it is sufficient to...
note that, if the measure is direct stimulation to our senses, a page of print makes a few moments of television look like a five-course French meal.

Printed prose is "an act of extraordinary stylization, of remarkable, expressive self-denial," stated Richard A. Lanham, who writes on Renaissance rhetoric and contemporary computers.26 Our eyes were selected over millions of years of primate evolution for their ability to notice, search, compare, connect and evaluate. Increasingly, in the five thousand years since the development of writing, they have been reduced to staring at letters of identical size and color, arranged in lines of identical length, on pages of identical size and color. Readers, in a sense, are no longer asked to see; they are simply asked to interpret the code.

Written words, as Aquinas realized but we tend to forget, are hardly a perfect form of communication. No such thing exists. I don't want to overstate the case for images—at least still images—either. Certainly, as the Bible seems to suggest, for centuries most Europeans tended to forget, nonmoving images have great difficulty conveying certain kinds of meanings. There are limits to what the Dutch humanist Erasmus called their eloquence.27

Alan Kay ended up dissatisfied with his experiments in the use of images on computer screens. He had understood, from having read educational theory, that icons were good at helping people "recognize, compare, configure." The success of the Macintosh and Windows operating systems has proven that his understanding was correct. But Kay had a grander ambition: He dreamed of using images to express abstract thought. Kay envisioned a kind of language of images.28

That is an old dream. It was long surmised that the mysterious hieroglyphs that could be seen on the Egyptian obelisks that had been dragged to Rome represented a language of images. "The wise of Egypt...left aside...words and sentences," wrote Plotinus, the third-century neo-Platonist, "and drew pictures instead."29 As late as the eighteenth century, the historian Vico assumed that "all the first nations spoke in hieroglyphs."30

Behind this notion was the belief, still held by many today, that nature is a "book" with a divine author.31 If each tree, each ox, has a spiritual message for us, then that message might also be "read" in paintings or even iconic representations of trees or oxen. An image language would be closer to that original divine language. Over the centuries many Europeans attempted to craft such a language.32 They produced various occult codes, systems of gestures, systems of concepts, guides to memory and tools for international understanding.33

These various image languages all had something in common: To the extent that they tried to communicate meaning effectively without depending on words, they failed. The conviction that the Egyptians had succeeded in this also crumbled. In 1799 one of Napoleon's soldiers in Egypt happened upon an old stone that included an inscription written both in Egyptian hieroglyphic and in Greek. With the "Rosetta stone" Europe finally was able to piece together accurate translations of those mysterious Egyptian writings, and it became clear that not even hieroglyphic had escaped the dominance of language. Instead, like all other successful writing systems, these icons were directly connected to words: For example, they made heavy use, as in King Narmer's name, of phonetic indicators, of homonyms.34

Alan Kay's efforts to produce abstract thought from systems of icons on the computer screen failed, too. "All I can say," Kay wrote, "is that we and others came up with many interesting approaches over the years but none have successfully crossed the threshold to the end user." The problem: "In most iconic languages it is much easier to write the patterns than it is to read them," Kay explained.35

Here, for example, is the series of hand signals one Renaissance experimenter, the Abbé de l'Épée, used in his language of gestures to indicate the concept "I believe":

I begin by making the sign of the first person singular, pointing the index finger of my right hand towards my chest. I then put my finger on my forehead, on the concave part in which is supposed to reside my spirit, that is to say, my capacity for thought, and I make the sign for yes. I then make the same sign on that part of the body which, usually, is considered as the seat of what is called the heart in its spiritual sense.... I then make the same sign yes on my mouth while moving my lips.... Finally, I place my hand on my eyes and, making the sign for no, show that I do not see.

All that is quite clever, even poetic. It must have been great fun to devise but almost impossible for "end users"—those who were watching the abbé's energetic performance—to decipher. That undoubtedly explains why at the conclusion of his elaborate pantomime de l'Épée felt called upon to add one more action: "All I need to do," he stated, "is to write I believe."36

If images cannot form languages without a reliance upon words, it is in part because they have a great deal of difficulty escaping the affirmative, the past or present indicative.36 De l'Épée was able at least to shake his head to put something in the negative; in some traffic signs
we use a red diagonal line to say the same thing; but most still pictures must strain to say something as simple as "no" or to ask "why?" or to wonder what might be. They state much more effectively than they negate or interrogate or speculate. Pictures are better, similarly, with the concrete than the abstract, better with the particular than the general. These are significant handicaps.37

The other great obstacle to images forming a language of their own stems not from their muteness but from the fact that they tend to say too much. For example, Michelangelo's awe-inspiring depiction at the summit of the Sistine Chapel of God giving life to man through the touch of his finger also can be seen as showing a father-son relationship and perhaps a lover-beloved relationship; it can be seen as showing caring, effort, joy, and undoubtedly numerous other emotions. This richness of meaning is testament to the artist's genius. But if we did not receive some verbal explanation, how could we be expected to "read" this scene as we might read a piece of writing?

Knowing the genre helps. The location of this great fresco tells us that we should search for a religious interpretation in it.38 But which one? The older man could be saving the younger man; he could be calling him to heaven; he could be giving or taking his soul. To know for sure, we must be directed to a story, to Genesis. Were this scene asked to serve as part of a language without the aid of such a story, how could we pinpoint specific meanings in it?39 "The image is freedom, words are prison," wrote the film director Jean-Luc Godard, never one to shy from controversy, in 1980. "How are laws decreed today? They are written. When your passport is stamped 'entry to Russia forbidden,' it is not done with an image."40 True, but neither the Bill of Rights nor the Declaration of the Rights of Man was composed in images either. The freedom images provide comes at a price.

"The ability of a visual language to express more than one meaning at once," contended Umberto Eco, "is also its limitation." Eco, whose academic specialty is semiotics, the study of systems of signs, called this excess of meaning "the fatal polysemey of images."41 Aquinas recognized the problem: "One thing may have similitude to many," he wrote. "For instance the lion may mean the Lord because of one similitude and the Devil because of another."42 How can we develop a lexicon of images if we have no way of determining which of the many possible interpretations of an image is correct? (The perplexing graphics that are supposed to explain to speakers of different languages how to operate European appliances provide another example of this problem.)

To use images more precisely without captions, explanations or instructions—without words—it is necessary to rely on the most obvi-ous of images, on clichés: a skull and crossbones, for instance, or a father snuggling up with a book and a child. France's expert on semiotics, Roland Barthes, gave the example of the use of a bookcase in the background of a photograph to show that a person is an intellectual.43 As a result, as images that try to convey meaning without the use of words become less ambiguous, they also become less interesting, less challenging, and vice versa.

"I don't want there to be three or four thousand possibilities of interpreting my canvas," Pablo Picasso once insisted. "I want there to be only one."44 However, the artist in his more thoughtful moments undoubtedly realized what anyone who has stood before one of his canvases has likely realized: That is impossible.

Words also can say too much, of course. Man, woman or god, for example, have no shortage of potential meanings. Dictionaries contain lists of them; occasionally we concoct our own. Writers can never be sure that their words have only one possible interpretation. As our literary theorists have spent a third of a century pointing out, readers bring different experiences and interests to the sentences they read and therefore take different meanings from them.

While working on this book, I reread Madame Bovary and, wouldn't you know, began to uncover in Flaubert's novel a series of lessons about images and words. Did he intend for me to read his book this way? Probably not. Nonetheless, Flaubert's problem with me and probably most of his other readers is much less acute than that faced by the authors of potential image languages. With the help ( alas of a translator I was able to get the gist of Flaubert's words. I followed his narrative. I was not so preoccupied with my own concerns that I missed the fact that he had many things to say that are not communications-related.*

Our strategies for reading words are fairly well understood. We can, at least, make use of those dictionaries, with their limited lists of meanings. And the problem of comprehending words is further eased, if never entirely eliminated, by syntax. Using a grammar, the basic structure of which seems built into our genes, we modify the form of our words to signify their relation to their fellows in sentences. And then we narrow their potential meanings further by surrounding them not only with various qualifiers but with prepositions and articles. There are few equivalents for such parts of speech in the realm of the image.

In spoken and written languages, word builds upon word, sentence upon sentence, idea upon idea. The ambiguity of images, on the other hand, is increased by what Alan Kay called their "unsortedness." Painters may have mastered some tricks for guiding our eyes across
canvases. But we are not born with, nor have we created, any particularly sophisticated systems for organizing still images to specify or build meanings. "Unlike paragraphs and lists of words, images have no a priori order in which they should be understood," Kay noted. "This means that someone coming onto an image from the outside has no strategy for solving it." 45

This chapter might be helped by a depiction of Thomas Aquinas, Bill McKibben or Alan Kay. It would be useful actually to see how the Abbé de l'Epée looked when he made "the sign of the first person singular." But such concepts as "efficiency," "abstract thought" or "by means of the visible" would be difficult to communicate through still images. And how might an argument composed of such images be organized? Left to right? Up and down? In a kind of circle? Unless, following de l'Epée's lead, such pictures were appended to a written version of the chapter itself, an observer would not know what "strategy" to employ in understanding them.

David Berrett and others of the most interesting workers in video—MTV alumni or MTV watchers—aim a barrage of images at us. Those images can do some things better than words; once we move beyond the scorn and the fears of word lovers, that becomes clear. Certain pictures can put most sentences to shame. But this is as far as I'm willing to go in making the case for still images.

The truth is that I am not one of those folk who spend an inordinate amount of time staring at dew-covered fields, wizened faces, cloud formations, or paintings thereof. It took some decades, and the guidance of a photographer friend, before I learned to notice light, not just the things upon which it shines. I'm good for a few hours in major museums, not a few days. Which is to say that while this is a book that gets rather excited about the potential of image communication, it is not based on a particularly romantic view of images or our visual sense in general.

Some continue to argue that pictures are more honest and profound than words, that they can claim some direct, mystical path to a higher reality. You won't find that argument here. In fact, I've tried to make clear in this chapter that still images operate under severe handicaps when attempting to embody ideas. For certain important purposes, a picture may actually be worth less than a single, relatively narrow, well-placed word. I agree with Umberto Eco that some of the most complex uses of images must "still depend (parasitically) on the semantic universe of the verbal language." 46 This, perhaps, is the true "curse" upon those who attempt to communicate through such images, graven or otherwise.

However, Eco did allow for one possible exception to his rule about the limitations of images—an exception even someone who won't pull the car over to gape at a sunset can accept: Eco suggested, with some reservations, that "the images of cinema and television" might escape those limitations. 47

There is a sense in which David Berrett and his colleagues and successors in video seem better positioned than Michelangelo, Picasso and computer guru Alan Kay might have been to communicate abstract thought unambiguously through images—for motion, sound and computer editing have indeed begun to solve the image's intelligibility problems. And at MTV speeds, in ten or fifteen minutes it is now possible to present a thousand pictures.