Approximately 35,000 years ago, there appears to have been a sudden expansion in the creation of body ornamentation and the use of visual imagery. This flowering of the visual sense did not coincide with an expansion in brain mass, which had been stable in Homo sapiens for at least 90,000 years (White 1989). Visual thinking was a truly revolutionary development that pervaded all areas of human cultural evolution. It became the basis of rituals, as humans imagistically transformed into other animals and elements for various purposes such as healing or hunting. The healing and performing arts both grew out of the rituals engendered by imaging.

According to Jeanne Achterberg (1985), imagery as a healing tool has its roots in the 20,000-year-old tradition of shamanism. She writes, “The shaman’s work is conducted in the realm of the imagination and their expertise in using that terrain for the benefit of the community has been recognized throughout recorded history” (p. 11). Magician and curer, the shaman is also both dramatist and performer. Julius E. Lips, PhD (1956) contends that modern drama developed from cultic-religious performances and mimic dances, in which actors initially impersonated gods and eventually took on the roles of jesters, clowns, and storytellers.

The very good time enjoyed in the "theater" by peoples even of the most primitive cultures shows that the deepest roots of theatrical effect have nothing to do with complicated stage mechanisms, individual stardom, or fashionable playwrights. Imagination is the magic cue. (p. 181)
Our perspective on the origins of alignment as it relates to the human body cannot be complete without a glance at the civilization of ancient Egypt more than 4,000 years ago.

Posture was of paramount importance, as can be surmised from the depiction of the pharaohs: They were the image of perfect alignment (although a teenage pharaoh probably slouched as much as his not so kingly counterparts). Why then these serene and magnificently aligned pharaohs? Why were the Egyptian people presented with this kind of an image and not a naturalistic one (which the highly skilled artists of the time could have easily produced)?

In the Egyptian culture, alignment seems to have been a basic necessity of life. Once a year, the landscape turned into a black, muddy quagmire, thanks to the Nile, whose profuse swelling obliterated all boundaries. An Egyptian farmer, on discovering that his parcel of land had shrunk due to poor alignment of the ropes used by the alignment corps (or whatever they were called), would have complained. For the Egyptians, this loss of land had to be avoided at all cost (there wasn't much time to grow crops). Order, and with it perfect alignment, was truth. Therefore, the pharaohs were (or should have been) the image of perfect alignment. To depict the pharaoh in any other position, such as gnawing on a chicken bone while sprawled out on a couch, was scandalous (there was such a "revolutionary" period, but it only lasted 20 years out of 3,000). Sitting or standing, the pharaohs had to be models of good posture—strong, yet calm and in control, ready to create order out of chaos.

The pyramids, too, were aligned with uncanny perfection, quite a feat without modern measuring tools. The following is a wonderful image from my lecture notes: Only twice a year, at the temple of Abu-Simbel, formerly on the banks of the Nile, a streak of sunlight passes precisely over the eyes of four figures (situated 60 meters within the mountainside!). To create such stunning architecture, you must have great imagination and visualization skills (from a lecture by Robert Thomas, March 13, 1995).

Thus, we investigate the power of the imagination, which seems so inextricably linked with the performing arts. For a more extensive history of the use of imagery in healing, I recommend reading *Imagery in Healing* by Jeanne Achterberg and *Seeing With the Mind's Eye* by Mike Samuels, MD, and Nancy Samuels (1975). Although as dancers we often need to heal ourselves and others (such concerns are addressed in later chapters), here we focus on the origins of imagery as a tool to improve artistic ability.

The following provides more background on the evolution of the science linking imagery and movement, a sort of "Who's Who" in ideokinesiology (imagery as related to movement).

HEINRICH KOSNICK AND MABEL TODD

At the turn of the century, Heinrich Kosnick, a pianist in Munich, developed a system of mental imagery to enhance the skill of his students. Calling his method "psycho-physiological," Kosnick recommended imaging while in a supine yoga position. He found the images he created to be so effective that he wrote two books, *Leidesteigerung (Life-Enhancement, 1927)* and *Busoni: Gestaltung durch Gestalt (Shaping Through Form, 1971)*. Busoni was a respected pianist and teacher who was trying to establish a scientific foundation for his work. Writing elegantly...
Our perspective on the origins of alignment as it relates to the human body cannot be complete without a glance at the civilization of ancient Egypt more than 4,000 years ago.

Posture was of paramount importance, as can be surmised from the depiction of the pharaohs: They were the image of perfect alignment (although a teenage pharaoh probably slouched as much as his not so kingly counterparts). Why then these serene and magnificently aligned pharaohs? Why were the Egyptian people presented with this kind of an image and not a naturalistic one (which the highly skilled artists of the time could have easily produced)?

In the Egyptian culture, alignment seems to have been a basic necessity of life. Once a year, the landscape turned into a black, muddy quagmire, thanks to the Nile, whose profuse swelling obliterated all boundaries. An Egyptian farmer, on discovering that his parcel of land had shrunk due to poor alignment of the ropes used by the alignment corps (or whatever they were called), would have complained. For the Egyptians, this loss of land had to be avoided at all cost (there wasn’t much time to grow crops). Order, and with it perfect alignment, was truth. Therefore, the pharaohs were (or should have been) the image of perfect alignment.

To depict the pharaoh in any other position, such as gnawing on a chicken bone while sprawled out on a couch, was scandalous (there was such a ‘revolutionary’ period, but it only lasted 20 years out of 3,000). Sitting or standing, the pharaohs had to be models of good posture—strong, yet calm and in control, ready to create order out of chaos.

The pyramids, too, were aligned with uncanny perfection, quite a feat without modern measuring tools. The following is a wonderful image from my lecture notes: Only twice a year, at the temple of Abu-Simbel, formerly on the banks of the Nile, a streak of sunlight passes precisely over the eyes of four figures (situated 60 meters within the mountainside). To create such stunning architecture, you must have great imagination and visualizing skills (from a lecture by Robert Thomas, March 13, 1995).

Thus, we investigate the power of the imagination, which seems so inextricably linked with the performing arts. For a more extensive history of the use of imagery in healing, I recommend reading Imagery in Healing by Jeanne Achterberg and Seeing With the Mind’s Eye by Mike Samuels, MD, and Nancy Samuels (1975). Although as dancers we often need to heal ourselves and others (such concerns are addressed in later chapters), here we focus on the origins of imagery as a tool to improve artistic ability.

The following provides more background on the evolution of the science linking imagery and movement, a sort of “Who’s Who” in ideokinetics (imagination as related to movement).

HEINRICH KOSNICK AND MABEL TODD

At the turn of the century, Heinrich Kosnick, a pianist in Munich, developed a system of mental imagery to enhance the skill of his students. Calling his method “psycho-physiological,” Kosnick recommended imaging while in a supine yoga position. He found the images he created to be so effective that he wrote two books, Lebenssteigerung (Life-Enhancement, 1927) and Busoni: Gestaltung durch Ge-stalt (Shaping Through Form, 1971). Busoni was a respected pianist and teacher who was trying to establish a scientific foundation for his work. Writing elegantly and concisely, Kosnick (1971) suggested in-depth knowledge of anatomy as a prerequisite to experiencing the correct functioning of the body and stated that the directed will leads to the movement goal. A pupil of Kosnick’s, Magritt Bäumlein-Schurter, wrote a book of exercises called Übung zur Konzentration (Exercises to Enhance Concentration, 1966).

Around the same time that Kosnick was developing his ideas, American Mabel Todd, author of The Thinking Body (1972), used her great skill and insight into the functioning of the human body to create astonishing changes both in herself and in her students. If her poetic and profound writing is any reflection of her teaching, it must have been a transforming experience to witness her work, which she referred to as "structural hygiene." Her books, which also include Early Writings 1929-1934 (1977) and The Hidden You (1953), emphasize the elegant construction of the body and its ability to change in response to will. Todd, who taught at Columbia University Teachers College, had movement difficulties caused by a serious accident. Although it seems the doctors of her day were unable to help her much, by using imagery, she was able to fully regain her ability to move. She is credited with proposing “hook lying,” or the constructive rest position, as a training position for mental imagery (see Constructive Rest, chapter 6).

LULU SWEIGARD AND IDEOKINESIS

Working with dancers, Lulu Sweigard (1978) researched and developed Todd’s ideas, defining ideokinesis as “repeated ideation of a movement without volitional physical effort” (187). In 1929, she initiated a study on the effects of imagery on alignment to “determine whether ideokinesis … could recoordinate muscle action enough to produce measurable changes in skeletal alignment” (p. 187). In meeting with students for weekly 30-minute sessions over 15 weeks, Sweigard (1978) discovered nine lines of movement along which most postural change took place.

The Nine Lines of Movement

The following descriptions of the lines of movement and their effects are accompanied by occasional references to imagery in this book that relates directly or indirectly to each line of movement.

1. Line of movement to lengthen the spine downward (part III, figures 13.11 and 13.16) releases tightness of the back muscles, especially in the lumbar region.

2. Line of movement to shorten the distance between the midfront of the pelvis and the twelfth thoracic vertebra activates the deep and superficial pelvic muscles in front of the pelvis that counterbalance the erector spinae group. Activating this line releases tension in the erector spinae.

3. Line of movement from the top of the sternum to the top of the spine can either lengthen or shorten, depending on alignment needs. It improves the alignment of the upper spine in relation to the pelvis, allowing the head to balance on an axis in a manner that releases tension in the neck and shoulder muscles.
4. Line of movement to narrow the ribcage improves the flexibility of the ribcage, thereby improving spinal alignment and diaphragmatic action.

5. Line of movement to widen the back of the pelvis releases tension across the back of the pelvis, allowing the femur heads to center in their sockets. Weight transfer from the legs to the pelvis, and vice versa, is greatly improved by this line (part III, figure 13.21).

6. Line of movement to narrow the front of the pelvis balances the widening across the back of the pelvis. It increases the stability of the front pelvic arch and activates the muscles in the front of the pelvis. Figure 1.1 shows the Sweigardian zipper.

7. Line of movement from the center of the knee to the center of the femoral joint brings the whole leg into alignment, greatly benefiting the knee. This movement balances the muscular action around the femur and allows greater control of the leg (part II, figure 9.5, the resultant force).

8. Line of movement from the big toe to the heel centers the weight thrust through the ankle joint by allowing the longitudinal arch of the foot to be "resurrected."

9. Line of movement to lengthen the central axis of the trunk upward. The summation of all the other lines, this movement allows you to attain your ideal height and release superficial muscle tension (figure 2.4a).

Figure 1 An imagined zipper closing up the front of the pelvis.
For more information on the nine lines, I recommend Sweigard’s *Human Movement Potential: Its Ideokinetic Facilitation* or Irene Dowd’s article, “Ideokinesis: The 9 Lines of Movement,” in her book *Taking Root to Fly*. Dowd studied with and assisted Sweigard at The Juilliard School from 1968 through 1974. In her book, Dowd enriched and expanded the ideokinetic work developed by Todd and Sweigard. Dowd, an expert in the art of touch, has a keen eye for detecting alignment and movement problems. Her illustrations convey a sense of flow and interconnectedness within the human body and the space surrounding the body. Dowd has taught at many major institutions such as Teachers College, Columbia University, Wesleyan University, and the American Dance Festival. Currently, she maintains a private practice in New York, is a regular guest faculty at the National Ballet School of Canada, and is a member of the dance faculty at The Juilliard School.

**Sweigard’s Goal**

Using a direct, one-to-one approach, Sweigard hoped to raise the standard of what was considered normal movement ability. She called her method an education rather than a cure. To Sweigard, ideokinesis was not a relaxation technique but a way to balance muscle action around the joints.

It is important to understand that relaxation and tension are related. Although balancing muscle action requires the release of tension in certain muscle groups, it also entails an increase in tension in other muscle groups. In many instances, people with shoulder tension do not just need to relax their shoulders. They also need to increase the tone in the central supporting muscles and organs of their bodies as a foundation for permanently reducing shoulder tension. Muscles often become tense to compensate for inefficiency in another area of the body. Although some images seem geared to either increasing or reducing tension, the result of visualizing an image is usually a complex redistribution of muscular tension, edging toward the desired balance around the joints. Sweigard (1978) writes:

> The all-important voluntary contribution from the central nervous system is the idea of the movement. Concentration on the image of the movement will let the central nervous system choose the most efficient neuromuscular coordination for its performance, namely innate reflexes and feedback mechanisms. (p. 6)

**Ideokinesis Versus Kosnick/Bäumlein-Schurter**

According to Bäumlein-Schurter (1966), the process of realignment begins with releasing work, which is followed by the creation of "life-carrying tone." This notion differs from Sweigard’s, at least in theory. From the very beginning, the ideokinetic method sets out to activate flaccid muscles and release tense muscles simultaneously. The aim is to move toward balanced muscle action from the outset of the training. In practice, most beginners can better apply releasing imagery (the shoulders melt like ice cream, the back spreads out on the floor) than activating imagery (the central axis lengthens upward). For the experienced imager, however, releasing and activating imagery are opposite sides of the same
The effect of a releasing image is also experienced through the concomitant activation of flaccid musculature; the effect of an activating image is also experienced through the concomitant release of tense musculature. Therefore, there is more similarity in the practical application of ideokinesis and the work of Kosnick/Bäumlein-Schurter than is apparent from the underlying theories.

BARBARA CLARK

Barbara Clark, first a client, then a student of Todd’s, wrote three manuals entitled: Let’s Enjoy Sitting-Standing-Walking (1963), How to Live in Your Axis—Your Vertical Line (1968), and Body Proportion Needs Depth—Front to Back (1975). Several of Clark’s students, among them Andre Bernard, participated in the creation of Let’s Enjoy Sitting-Standing-Walking. Most recently, Pamela Matt of the dance faculty at Arizona State University wrote A Kinesthetic Legacy: The Life and Works of Barbara Clark, a fine in-depth look at Clark’s great contribution to this field. Clark created some very valuable exercises to increase awareness of the central axis, paramount to any improvement in alignment (see below).

Clark’s student, Andre Bernard, began teaching at the Dance Department of NYU School of the Arts in 1965. Bernard, whom I first encountered at NYU in 1979, is very skilled at using his hands to help in visualizing anatomy, a process called tactile aid. The images seem to pour out of his hands. His deep, resonant voice, especially valuable during constructive rest sessions, contributes to the overall impression of an image. Bernard once described Clark as “a primitive abstractionist, using basic, earthy thinking; her imagery is like a Picasso painting” (lecture notes, 1982). Both Clark and Bernard gave sessions to dancers and actors, among them Marilyn Monroe, who was supportive of Clark’s writing effort (Matt 1993).

Many other excellent teachers were trained by Barbara Clark, including John Rolland who wrote Inside Motion: An Ideokinetic Basis for Movement Education (1984). Rolland taught alignment at the Vermont Movement Workshop and in 1981 was invited to teach in the Modern Dance Department of the State Theater school in Amsterdam (now called the School for New Dance Development).

CIRCLING YOUR AXIS

(This exercise is adapted and expanded from Barbara Clark and Andre Bernard.)

Stand in a comfortable position with your arms hanging at your sides and imagine a vertical line or force beam originating on the floor between your feet and moving up through the center of your body. This line must be recreeted at every moment; you cannot take it for granted; you need to infuse power into it continuously. Your body seeks to orient itself around this line, which is your central axis. (It is as if the individual cells of your body find this axis a convenient line of orientation.)

Lift your feet off the ground alternately by flexing easily in your hip sockets. Feel your central axis between your shifting legs. Begin to rotate around this axis. The axis does not move through space. Like a merry-go-round, your body revolves slowly about its central post. Once you have completed a 360-degree circle, try turning to the other side. Notice the difference between turning to the left and turning to the right.
Find a reference point just in front of your toes, perhaps a division between two tiles or a scratch on the floor. It should be something that you cannot feel with your toes (or you could cheat). Rotate again to the first side, maintaining your focus on the horizon. After you have finished your revolution, check your reference point to see if you have moved forward, sideways, or to the back. Repeat to the other side and check your reference point.

Now do the exercise with your eyes closed. When you believe you have completed a 360-degree revolution, open your eyes and check your position. Repeat the exercise to the other side.

By now you should have discovered which is your easier turning side (usually the side where you deviate less from your central axis).

The point of this exercise is to discover the precise difference in sensation between turning to one side and turning to the other. What small chunk of sensation is missing on one side that the other side possesses? How exactly does the axis change from one side to the other? Does the axis look different, have a different quality, when you turn to one side versus the other? Can you interchange sensation or quality between the sides to balance them?

Now you are ready to circle your axis by doing small quarter-turn hops. After every quarter-turn hop, do one hop in place. The sequence is: Quarter-turn hop, hop in place, quarter-turn hop, hop in place, quarter-turn hop, hop in place, quarter-turn hop, hop in place; repeat the exercise one more time to the same side.

Again, practice to both sides. Then try the same exercise with half turns and finally whole turns (even double turns, if you are an experienced dancer or gymnast).

I practiced the above sequence frequently with the Swiss national gymnastics team. It showed clearly that jumping power alone (of which they had plenty) will not create successful double turns in the air. A clear concept of your axis will use less "random" power and improve your turns.

JOAN SKINNER

During her dance training, Joan Skinner, who performed with the Martha Graham Dance Company, the Cunningham Dance Company, and many others, discovered that many of the things she was taught created a forced style of movement, causing tension and pain. Working on her own for several years, studying the Alexander technique, she discovered a new method of training based on the body's own knowledge. In a radical departure from traditional dance training, Skinner's classes might involve lying on the floor immersed in an image or improvising to a haikulike totality image. (Haiku are short Japanese poems that evoke a certain mood; see chapter 7.) Skinner's method, which she called Releasing, uses poetic imagery and provides a profound base for effortless movement and control. According to Stephanie Skura, choreographer and teacher of the technique:

Letting go is a crucial preparation for allowing an image to truly move you. Releasing does not have to do with moving softly; it has to do with a constant flux without grabbing onto anything. You get your orientation not by holding onto some center, but by letting the energy flow within you, through
you, and around you. This is not an industrial age, mechanistic view of energy; it is not something finite that you can manufacture, store, and use up. You feel yourself as part of a greater energy. (personal interview, July 1993)

The concepts inherent in Skinner Releasing remind me of Heracleitus, Greek philosopher of Ephesus (around 500 B.C.), who maintained that all things were in a state of flux. He said that unity persists through constant change and used the analogy of the river to explain: "Upon those who step into the same rivers different and ever different waters flow down" (Encyclopaedia Britannica, 1966 ed., "Heracleitus", 386). Not all things need to be changing at all times. Rocks and mountains can be temporarily stable, but they will eventually change as well.

The concept of flow is crucial to creating dynamic alignment. Just as we have said that your mind can sculpt your body into a certain posture, your mind can also help your body flow into better alignment. And here is the good news: A flow cannot be held because it then ceases to be a flow; therefore, alignment based on this notion cannot become rigid. If you begin to realize that your alignment is flowing, constantly changing, even if on a cellular or molecular level, you are able to take charge of this flow. Using imagery, you can constantly guide your alignment toward increased efficiency without ever holding onto it. If you were to stop the flow, even in what appears to be a biomechanically well-aligned position, tension would ensue. The building blocks of our body, the cells, are both filled and surrounded by fluids. Therefore fluid motion is inherent in our very structure.

**SOMATIC DISCIPLINES**

Dancers have found various somatic disciplines that are not specifically oriented toward dance to be very useful in improving their skills. Ancient disciplines such as yoga are so central to many forms of dance that I would be remiss not to credit them adequately, although it is beyond the scope of this book to delve deeply into them. Not necessarily based on the use of imagery such as ideokinesis and Skinner Releasing, the following beneficial techniques apply imagery (usually nonmetaphorical) in certain contexts.

**Alexander Technique**

Donald Weed (1990), a teacher of the Alexander technique, writes that all of the work can be distilled down to two discoveries:

(1) In every movement you make, there is a change in the relationship of your head with your body that precedes and accompanies that movement, and which either helps you or gets in your way. (2) The conscious mind has the capacity to override every system, including the natural ones. (p. 26)

The Alexander instructions, which allow the head to go up and forward and the back to widen, seem to harmonize well with the imagery used by Todd and Sweigard. The Alexander concept of inhibition, of "saying no" to the habitual mental and physical reactions, is very relevant to imagery work as well.
To use an image effectively, you first need to clear your mind. You cannot be in a nervous state, your mind filled with a jumble of thoughts, and then pile some images on top of all that. It simply does not work. You must be open and receptive to new possibilities in your body. Nor should it be necessary to act on every impulse that comes to mind or muscle. (A muscle impulse is one that you feel in your body before you realize in your mind what you want to do.) In fact, you need to learn how to react as little as possible to any irrational urge to do something. In this way, you can become selective about how you perform a movement, choosing the most efficient of the many movement patterns available. The proper pattern can only be found in a peaceful state—a state in which impulsive movement patterns can be ignored, overridden, or "inhibited."

**Autogenic Training**

The purpose of Autogenic Training (AT), a technique developed by the German Dr. I.H. Schultz (1982), is to release tension, lower your heart rate, and change other physiological conditions of your body. The imagery used here relaxes and calms the body and mind, suggesting heavy limbs, a cool forehead, and a quiet heart. AT also uses self-talk in the form of positive affirmations. It is interesting to compare images used by Schultz, Kosnick, and Sweigard to reduce overall body tension: Schultz (AT) directs his students to experience the limbs becoming heavy; Sweigard suggests the body as a suit of clothes collapsing front to back; and Kosnick (as related by his student Bäumlein-Schurter) has the body sink downward into the ground.

**Funktionelle Entspannung (Functional Relaxation, or FR)**

Functional Relaxation is a somatic movement therapy developed in Germany by Marianne Fuchs, who was trained in the German Mensendieck method. The goals of FR are to experience weight, inner rhythm, and movement in the expirational phase of breathing to promote an economical use of the body. Fuchs uses imagery in a variety of ways. For example, a series of exercises in FR "remembers" the 15 inner spaces by clearly visualizing them. These inner spaces, together with skeletal awareness, are very important to the upright posture. Fuchs (1984) also points out that faulty movement and postural patterns created by negative emotions can only be remedied through the use of positive feelings and images.

**Moshe Feldenkrais**

With Feldenkrais technique there is no right or wrong posture. The technique asks questions such as: What is your structure? Where are you? What are you doing? What is your intention? Feldenkrais uses movement exercises, some of them deceptively simple, to create astonishing changes in flexibility and movement patterns. It sometimes requests the student to perform a movement on one side of the body and only visualize it on the other side, or to imagine a movement several times before actually doing it. Author Layna Verin (1980) states that Feldenkrais accomplishes its results by enabling you to become more sensitive to differences. By devising a configuration of movements that cannot be performed without this refinement. By making you aware of the minute interval between the time your body
mobilizes for movement and you actually do that movement—the minute interval that allows you to exercise that capacity for differentiation and to change. (p. 84)

**Body-Mind Centering®**

Founded by Bonnie Cohen and associates in 1973, the School for Body-Mind Centering® (BMC) teaches movement through anatomical, physiological, and developmental principles. Cohen, whose original background is in the fine arts, dance, and the theater, was licensed as an occupational therapist and a neurodevelopmental therapist by the Bobaths in England. She also studied Neuromuscular Reeducation (another name for Todd’s imagery work) with Andre Bernard and Zero Balancing, a bodywork method developed by Fritz Smith and Katsugen Endo (“the art of training the nervous system”) with Haruchi Noguchi in Japan.

Imagery is intrinsic to BMC and is applied to the musculoskeletal, respiratory, digestive, circulatory, nervous, and hormonal systems. Child development is explored in detail; early movements such as creeping, crawling, and rolling are related to the evolutionary stages of the animal kingdom. Bonnie Cohen recently published Sensing, Feeling, and Action: The Experiential Anatomy of Body-Mind Centering, a collection of articles that had formerly appeared in the Contact Quarterly.

**FROM CRAWLING TO STANDING**

Get onto all fours and prowl around the floor like a child who is pretending to be a tiger in the jungle. Occasionally the tiger decides to become playful and rolls onto its side and back, or may even do a complete roll. Next the tiger practices crawling backward, as if retreating from a threat, only to recoil off its powerful hind legs and increase the speed of its forward motion.

Begin to crawl forward at an ever-faster pace, and finally, change as harmoniously as possible to an upright walk. As you continue to walk, imagine that you are still crawling. (It is particularly important just to think the image, not to do it.) Notice how this affects your alignment. Now begin to run, and imagine that you are a tiger bounding across the grasslands with a flexible spine and soft paws.

All of the above-mentioned methods are strikingly original and creative. They are linked by their use of imagery—in some form or another—as a catalyst for change. In the following chapter we will explore how a variety of postural models can contribute to our understanding of dynamic alignment.