

Chapter Nine: Call for the Body

Knowledge is in the bone.

Malidoma Some, Dagara medicine man

Touching is a dialogue, a conversation. As I touch things, they meet me, caress me, press on me, speak to me. This kind of exchange has implications for our standing in the world; it is humbling as well as reassuring. We find that objects have their own intentions, limits and possibilities, which have a felt impact on our intentions, limits and possibilities. As new technologies take us into increasingly malleable, illusory realities, we need more than ever the haptic interface with concrete things and real forces to remind us where the ground lies.

We know how to find significance in visual events: a line of red suggests blood; the repetition of shapes creates order; a pool of light focuses attention. We can also discern qualities and interpret meaning in an artwork through the sense of touch. The arc of a curve feels inclusive; a smooth stone suggests the wear of time; a long, rolling surface evokes travel through a landscape. Sliding my hand into a narrow cavity, the sense of confinement is bodily felt. A surface that looks blank to my eye feels warm, gritty and nuanced to my hand.

The meanings we garner by touch carry peculiar power because the *body* experiences them as well as the eye and mind. I know a shape by the shape of my arms, a texture by the sensations in my hand, spatial depth through my reach. Meanings find expression in my motions. I feel physically as well as emotionally engaged; I move closer than when I stand back to look. By drawing more of my senses, more of my body, and more of my feelings and memories into the encounter, the richer my understanding of the artwork and the deeper my experience. This observation came from a Japanese gentleman after he touched several of my sculptures while blindfolded:

This experience takes me into another dimension or world or universe. It resembles a memory I have of being lost in a dream. This experience is very fundamental, basic, primitive. It's different than more intellectual experiences or even emotional ones. It's more direct and therefore stronger.

The first sculpture I ever touched in this conscious way was one of David Smith's *Cubi*. The vertical stack of brushed steel cubes set at odd angles to each other stood taller than me. The forms remained cool, hard and metallic to my eye. To my hand, the faces of the cubes were surprisingly warm, sensuous, even soft. The delicately brushed surface patterns appealed to my fingers. What proved most compelling to touch (and altogether unnoticed by sight), were the triangular spaces *between* the cubes. The negative spaces between the tipped, stacked cubes were riveting when my hands entered them; they turned into caves, nooks, and crannies. Before I touched them, the metal sides of the cubes had belonged to and defined the cubes. Now they bounded and defined the tent-like spaces around my hands. What had been background, negative space became foreground, positive space. I enjoyed the sense of containment I felt in these crannies. Although only my hands were active, I felt as if I had climbed into the chambers; I remembered the small places inside closets and under tables where I had loved to play as a child, and the cavities and caves I still climb into when I hike in canyon country. To the eye, these spaces were left over, not *places* with their own atmosphere, associations and imaginative possibilities—places to inhabit.

Also striking was the way the tactile information (the softness of the cubes' surfaces and the triangular spaces between the cubes) and the *experience* of that information fused in my mind. I could not separate the fact of the brushed surfaces from my hand's memory of the soft curving lines. The spaces between the cubes now possessed dimensions measured by my hands and invested with memories of play. Indeed, the sensory memories and the *desire* for these sensations led me to explore those places. The exploration called up bodily memories, but my history led me to investigate the spaces. There was no way to know which came first. Yet neither the memories nor the

exploration would have occurred if I had not touched. Memories of childhood play and of wilderness exploration became inextricably tied to the experience of this sculpture, creating a new string of associations that define me as a lover of small, contained spaces; as someone who values and inhabits the spaces between things; as continuous with my childhood self.

Equally surprising was the way my hand could stand in for my entire body. I could imaginatively inhabit what I felt with my hands. The distance between me and the sculpture disappeared. I was no longer standing in a museum looking at an artwork; I was curled inside a pearly grey cave. I could transpose my size, posture, and age into completely different versions; I was simultaneously five-feet-five-inches tall and three feet tall; both standing and sitting; fifty, thirty and four years old. The sculpture served, and continues to serve, as a dwelling place for my hands, body and imagination.

Some artists intuitively know the power of touch. The sensations they feel as a sculpture develops under their hands shape the making and the intention as surely as its appearance. Tactile intelligence and desires direct their decisions. They are sensitive to the shape of a gesture, the pressure applied, the responsiveness of materials. Consider the burgeoning forms and active surfaces of Moore's bronze figures, the taut, smooth shapes of Brancusi's stone heads, or the tense, ravaged figures of Giacometti. These sculptures invite people to respond to their inherent sensuousness with open senses. Their materials possess depth and power in their very nature. Surfaces scintillate with movement activated by modeling or polishing. Forms pulse with internal pressure. The natural response to this intensity of life is to move toward it with our own vital, somatic intelligence.

The artist physically interacts with materials such as steel, clay, fabric, paint and rope, exploring the visual possibilities but also the haptic, tactile qualities, generating forms to explore those qualities and to forge new ways to use them. The artist works through her somatic history, habits and desires—how she played as a child, the landscapes she knows, how she likes to move. These memories express themselves in the

way she works: large or small; wielding heavy machinery or delicate tools; climbing ladders or digging in the ground; using malleable clay or obdurate steel.

The person who touches a sculpture taps into the life of the artist, distilled and concentrated. Every part of the artwork expresses the attention, intention and intensity with which the artist made it: the choice of materials, the forms, the surfaces, the transitions between parts. A man who is visually impaired came to a lecture I gave in connection with a museum exhibition of my sculptures. He came, he said, to confirm his impressions of me gathered earlier in the day by touching my sculptures. He felt he knew me through my work, in the attention to detail, the careful making, and the quality of listening.

When we touch a sculpture, we learn about the artwork and the artist, and we also learn about ourselves: the way we touch, the sensations we feel, the gestures we use, the parts we miss, the feelings that arise, the memories, associations and ideas that emerge, the desires that guide our exploration. We discover aspects of ourselves long forgotten or deeply known or newly found. Meeting an artwork in this way creates a nexus of connections—to the artwork, to the artist and to one's inner world. One touches the life of the sculpture, the life of the artist, and one's own life, forging a unified field of all three.

Brenson proposes that one of the most basic questions to ask about a sculpture is: does it want to be touched? Does it call for touch? What makes a work of art call for touch? The criteria differ from those for merely visual art. He describes the kind of sculpture he considers appealing to touch:

The sculpture I am concerned with seeks a communion with the hand and holds out the promise of an encounter between it and the hand that will release something essential yet hidden in both...The kind of sculpture that offers a communion with the hand tends to be monolithic. It is usually hard. It is not pictorial. It cannot be kinetic. It must be in place.

Nor is sculpture necessarily appealing that bears heavy textures such as deeply chiseled wood, or that uses materials inherently textured, like fabric or stone, even though these may *visually* stimulate the sense of touch. These surfaces may or may not be tactually informative or enlightening, he says:

Even sculpture that seems to be a hymn to touch may not be responsive to actually being known by the hand. Willem de Kooning's taffylike figures have everything to do with expressive gesture but they do not elicit a desire to touch them, and if you do you will learn nothing more than you learned with your eyes. The imposing wood figures and heads by George Baselitz are filled with incident, but the anonymous markings help create the impression that they are so detached that they are totally indifferent, if not immune, to touch.

My colleague Deidre, who is blind, had the same response in touching a Rodin bronze head; the complex surface texture obscured the overall form. Such artworks may be visually stimulating, but the sensing hand may feel lost in a field of texture or unbounded space, put off by roughness, confused by complexity, or out of place in the wrong scale.

Touching a sculpture with smooth, flowing forms and sensuous materials, which would seem haptically appealing, may not add another dimension to visual impressions. What makes a sculpture tactile is more than flowing, voluptuous forms, sensuous surfaces or figurative allusions. According to Brenson, sculpture that appeals to touch has a vitality of mass that suggests life within:

In sculpture that welcomes the hand, the integrity and conviction of the surface is an expression of the life inside it. When the surface of a sculpture appeals to the hand, something within the mass seems to be emanating, extending

itself, moving in our direction. That something seems intent on making itself desirable, and it seeks to desire contact with us...When the sculptural interior is alive, the life inside the mass seems part of it and yet outside it, part of the identity of that sculpture and yet beyond ownership. It seems to have chosen to dwell in that particular sculptural form even as it remains so general that it clearly belongs to no one and nowhere...

Henry Moore speaks of his sculpture in such terms:

One of the things I would like to think my sculpture has is a force...a strength, a life, a vitality from inside it, so that you have a sense the form is pressing from inside trying to burst... rather than having something which is just shaped from outside and stopped. It's as though you have something trying to make itself come to a shape from inside...and so the knee, the shoulder, the skull, the forehead, ...where... you get a sense of pressure of the bone outwards—these are for me the key points.

We feel an impulse to meet the life inside a sculpture—essentially an embodiment of the artist's vitality. As we do, we feel our own aliveness. The life in the sculpture speaks directly to the life in our bodies, bypassing the intellect.

Brenson describes other qualities that arouse the desire to touch a sculpture: an integrity and conviction of surface that stem from a deep understanding of the logic of the material from which it is made:

It is born of the sculptor's ability to connect with the material to the point where it seems animate, forever moving, not only alive in the present but an expression of something that has always been and yet that remains forever in the process of becoming. It depends upon a belief that the viewer's tactile connection to the life

in the material is as important to the work's content as any overt statement it might make would be. The material is usually traditional—wood, bronze, clay, plaster, glass or stone.

The choice of materials determines aesthetic possibilities as well as ways of moving and interacting. Folding paper is a very different experience than carving stone. The artist's choice of whether to use the whole body or small motions of the hand, to wrestle with huge beams or sew silk, is as much somatic as it is aesthetic, and remains central to the nature of the ensuing artwork. In Katherine Kuh's *The Artist's Voice*, Josef Albers, whose work seems totally without concern for haptic issues, speaks about his materials: "I always paint on board because it has the resistance of a wall. I can't stand canvas; it runs away from the touch—an unpleasant feeling for me. It's too evasive."

The choice and use of materials is immensely enriched by haptic considerations. We know materials only partially through sight; we must touch to know them thoroughly. Many qualities are not fully accessible to sight: weight, temperature, textures, hardness, resilience, fragility, resistance, flexibility.

Intellectually I know metal and stone are colder, but this made it evident to my fingertips.

We deal with so many artificial textures these days you never know if what you see is going to feel like it looks. These are different materials than you normally touch—fine woods, metals, richly textured things.

The first indication of an artist's intentions for meaning lies in the choice of materials. Each material has its own qualities, sources, processes, possibilities, limitations, resonances and associations. The meanings we find in materials are usually grounded in their haptic qualities, whether we are looking or touching. Rawhide is hard but warm to the touch. The forms it takes are mobile and irregular. The wet, pliable skin dries hard and translucent. Touching it I know, at some level, the steer, the rancher's hands, my own skin. Steel is cool and hard. It can be thin, sharp and flexible, or thick and unyielding. It

suggests heat and machinery. When I touch steel I know the millworker's hands, the strength of metal, heavy industry. Materials provide more meaning to the hand than to the eye.

Made me realize how much I love textures and odors of materials—how comforting is leather, how unpleasant concrete. Metal is the odor of hard.

Touching creates more vivid distinctions *between* materials. We find that wood is warmer than bronze, that cloth is sympathetic to plaster, that rawhide is harder than tanned leather. If several materials are combined in a sculpture, the relationships among them become more complex and compelling when known through the tactile senses—more qualities are revealed, and the contrasts are amplified. Steel is more steely next to glass. Cloth is softer and more ephemeral beside bronze. Leather is more malleable than stone.

The speed was very different on different textures. The suede was slow, with my whole hand; the metal was faster, just the tip of my finger.

The worked aluminum surface felt softer than paper. Copper felt softer than wood, more impressionable. Astonishing that such a hard surface could feel so soft, seeming softer than my skin.

The lid [which is covered in suede leather] looks like stone, so when I touched it, I felt as if I'd been shocked. I was so surprised I pulled my hands away. And the shadow actually was stone!

Tactile, haptic art is not simply art that one is allowed to touch. It is art imbued with tactile intelligence. It exudes haptic awareness. Art that calls for the sense of touch embodies a particular kind of consciousness: one that knows body, earth, gravity, weight, and pressure. One that is aware of time, memory and mortality, one that feels at home with nature's laws and ways, that embraces both the material world and the spirit world. Brenson names Penone, Gormley and Abakanowicz as artists who were brought up in or near, or who have been immersed at some point, in peasant cultures, which remain rooted in body and nature:

All make sculpture that lays bare basic links between the human body, human existence and nature. To run one's hands over the embryonic trees asleep within Penone's beams is to feel the skeletal structure inside animal and vegetal bodies. It is also to feel the child within the body of man. When touching Gormley's lead figures I feel I am holding pressure. I seem to have within my hands a force of air and movement so uncontainable that it makes me believe human beings hold within their bodies both the gravity and the revolution of the earth...The naked surfaces of [Abakanowicz'] War Games are so sensual, the inner vitalities of their bodies so irrepressible, that...to touch them is to feel a human bond with all of nature.

Sculptor Magdalena Abakanowicz, says it in her own words:

Between myself and the material with which I create, no tool intervenes. I select it with my hands. I shape it with my hands. My hands transmit my energy to it. In translating idea into form, they always pass on to it something that eludes conceptualization. They reveal the unconscious.

For sculpture to speak to the somatic senses of the perceiver, the artist must be in tune with her own somatic senses. The sensitivity of the artist to her body and its ways deepens the capacity to translate that awareness into sculpture. The more fully an artist inhabits her body, the more choices and resources she has to call on for the making of art. Some artists are naturally engaged with their somatic intelligence because of their innate character, where they grew up, and their life experiences. Henry Moore speaks of his working process in this prescription for a sculptor:

He must strive continually to think of, and use form in its full spatial completeness. He gets the solid shape... inside his head—he thinks of it, whatever its size, as if he were holding it completely enclosed in the hollow of his hand. He mentally visualizes a complex form from all round itself; he knows while he looks at one side what the other side is like; he identifies himself with its center of gravity, its mass, its weight; he realizes its volume, and the space that the shape displaces in the air.

When I first began working with touch, my hands felt clumsy and awkward, not in their manipulative abilities, but in their perceptual skills. They could not discern color; they could not remember and connect the different parts. My reflexes were so visual, I felt hampered by my dependence on sight. I strained against the rules I set for myself; I wanted to make visual and tactile aspects correspond as closely as possible so a sculpture could convey meaning entirely through tactile means (especially for someone who could not see). Eventually I realized my frustration came from trying to translate visual phenomena into tactile language. I began to investigate my sense of touch on its own terms rather than trying to overlay a tactile dimension onto visual effects.

In this new way of working, my hands and my body are doing more than making the sculptures. They investigate how shapes and surfaces feel and how I know forms and spaces. I am asking different questions than if I were aiming only for visual effects. What does it mean for hands to move from a rough texture to a smooth? What materials might give a sense of both hardness and warmth? How can I create a kinesthetic experience of emptiness? Is it possible to establish a sense of physical safety for people and invite emotional risk? These questions look to the body for their answers. No longer is sight the only means for determining form, space and meaning in my artwork. My hands and body are full participants in aesthetic questions and decisions.

A deeper awareness of the body or engagement with the body emerges for the artist making haptic sculpture. This has implications for the artwork as it is made and for

the hands and bodies that will feel it. In my own work, knowing that the arm is rooted in the back, I offer situations that call for a long reach. Noticing that the hand naturally curves inward around its center, I consider shapes that cup and cradle. I make structures that acknowledge people's height and size, that make room for feet, that allow entry. My sculpture serves as a kind of research into questions about haptic sensory play. I ask my hands and body (and other people's) what they are able to do, what they are interested in doing, and how their actions translate into sensations and meaning.

Standing and sitting are very different; standing is more active, my whole body is engaged; there's more of a spatial sense, more grounded. When I was in the chair, my body dropped away.

I had to teach myself to do this. I had to develop strategies for knowing through touch. Each surface yields to another surface, then turns a corner. Very complicated. My notions about symmetry had to dissolve to be with it the way it is.

I was surprised to find such pleasure in hard edges, square corners; it emphasized the organic nature of my body.

I'm interested in secrets in our bodies, in our selves; I like finding secrets inside.

While some artists instinctively know and act through their bodies, others cultivate that awareness. There are many ways to develop haptic sensitivity that can feed directly or indirectly into the art making process. Physical practices such as dance, aikido or kayaking, or receiving bodywork such as massage therapy, Rolfing or Feldenkreis, when explored over time, deepen awareness and knowledge of one's body—its powers, weaknesses, habits, abilities, and capacity to change. They also develop a different kind of consciousness and intelligence, based not so much in the brain as in the body-mind.

For some artists, greater somatic awareness emerges from illness, injury or disability. Forced to face physical limitations, whether from birth or later in life, one develops a profound relationship with the body and its ways. In these circumstances, art making can be a dialogue with the body and its condition. The images or processes involved may illuminate feelings, which in turn stimulate artistic investigation. An artist

friend whose work was mainly colored-pencil drawings descended into years of limited mobility resulting from a rare nerve disease that caused numbness in her extremities. She could not hold a pencil. Nevertheless, she kept drawing by taping pencils to her hand, wanting to keep abreast of the changes happening to her. She produced a remarkable series about having limited mobility.

Like visual art making, haptic art making raises intellectual, emotional and spiritual questions. How do I feel as I make this motion or touch this surface? Does my body move naturally in that direction or is it forced? Is my body confused or unsupported by these shapes? Does this size or shape take me into an unfamiliar movement? Is the movement too familiar? Does the movement or texture or shape carry associations compatible with the meaning of the piece? What does the movement mean? What does the texture mean? What do these shapes mean to the hand; is that different than what they mean to the eye? Does this form suggest more than one meaning to the hand?

The haptic choices an artist makes is guided by his intentions for the meaning of the sculpture. Creating tactile sensations for their own sake misses the point. Work that offers tactile stimuli without inherent meaning, imagery or narrative would be analogous to purely optical exercises. To honor and plumb the emotive power of touch, tactile phenomena must be integrated into the fabric of the structure, meaning and narrative of the artwork. A tactile choice must follow the same stringent process as a visual choice. As one perceiver astutely pointed out:

There are two kinds of "friendly": the surface that is pleasing to touch and the order in the forms.

Art made for the hand acknowledges the way hands come to know things through continuous, cumulative exploration. Such work must provide continuity, allowing the hand to move across the landscape of the artwork without disruption or gaps. The surfaces flow into one another; forms lead to each other; and materials relate and lead to each other. Discontinuity may be part of the haptic experience, but only if that is the artist's intention.

People sense different subjective qualities in different uses of the hand. An open hand creates a different feeling than a hand that bends or curves, grasps or flattens. Hands can pinch, grip or knock. Touch that differentiates fingers, using each finger in a slightly different way, can generate a feeling of discernment and subtlety, which is different than touch that uses the whole hand as a unit.

My hand was forced to go flat on the surface by the narrowness of the space, a way of feeling I had never done before, very different than fingertips.

Qualities evoked by the use of the hand carry emotional, psychological associations, which may differ from person to person. The interpretation of sensation is a function of the mind; the wide range of possible interpretations poses challenges for the haptic artist. Not enough is known about how touch creates meaning, and tactile perception remains incredibly complex. For example, some people find the steel frames in some of my sculptures helpful for orientation to the piece (especially with visual limitation or with eyes closed), while others find the frames inhibit easy access to the tactually appealing elements within. I use them for both purposes, wanting to reflect the orienting yet limiting framework of the structures and concepts we live inside. What matters in the end is that the gesture of a touch embodies meaning and creates a perceptual, psychological impact, whatever the content or intent.

Some people with disabilities have had to develop the use of other body parts to replace the normal functions of hands. A woman whose hands were immobilized by arthritis realized she could touch my sculptures with the sensitive undersides of her forearms. She was deeply moved to reconnect to her missing sense of active touch. A woman born with no arms used her face to explore the sculptures. She would have preferred to use her feet, she told me later, because they can grasp form and space, but she felt inhibited in the museum context.

Using other body parts for touching can awaken and refresh the sense of touch. Breaking habits, however gently, can stimulate new neural connections. Actively touching with parts of the body not usually used for touching heightens the subjective

aspect of touch, making one acutely aware of sensations and the quality of touch. Touching with the hands, which are used all the time for handling and contact, can feel less intimate than touching with the torso, which feels closer to one's core and evokes more internal, visceral qualities. Aesthetic touch, which is driven by curiosity and interest more than function and purpose, invites exploration with less-used parts of hand and body.

The use of motion can deepen an artist's understanding of a developing artwork. By physically exploring the movements in it, by dancing or miming them, we can feel what those forms and shapes are doing and better sense their meaning. As art history students, my friends and I would take the positions of bodies in paintings and sculptures as a way to remember them, but also to enter the image with greater empathy. How does Bernini's David feel as he winds up to fling the fatal stone at Goliath? Or Degas' woman kneeling in the bathtub? Or Chagall's figures floating above their villages?

One of an artist's challenges is to make the spaces in the artwork as alive and charged with presence as the solids. Haptic perception can provide an experience of space and the way it interpenetrates with forms that sight does not as fully provide. Since the physical exploration of space calls our spatial sense into play, it can generate a stronger feeling for spaces, their dimensions and their qualities. The more ways an artist can bodily explore the spaces she is representing in a painting or forming in a sculpture, the more cogent and potent those spaces will be, whether abstract or realistic. This exploration may take the form of pacing a room, walking a mountain, curling inside a closet, lying down.

An artist may also consider the cognitive, emotional, expressive possibilities in the *perceiver's* movements. The artist can create the potential for people to move in such a way as to induce particular effects. A sculpture is a loose score for movement. Movement is a loose score for feeling. An example would be the Japanese teahouse—a kind of sculpture—in which the doorway is so low that someone entering must bend over, evoking a sense of humility while approaching the ritual of the tea ceremony. The

bowing motion effects a transition into another reality, a passage from the ordinary world into a special realm. The action of bending over or bowing invokes a brief liminal state: one gives up the customary vertical relationship to gravity, to sight and to others. Such movements have emotional, qualitative dimensions. Hands' movements can trigger feelings, but even more so can the whole body moving. Most of us spend our time within a narrow range of motion. Sculpture can lead the perceiver from unconscious movement into a fresh awareness of motion. Reaching to explore something overhead, squatting to feel something low, leaning over to reach inside; the aesthetic context can stimulate new sensitivity to the sensations and implications of such ordinary motions.

Not everyone touching a sculpture will follow the same path, or use her hands or body in the same way. Yet it is possible to create the conditions for certain kinds and directions of movement. Certain textures and surfaces, certain forms and structures, call for certain qualities of movement. Complex, detailed surfaces invite small, complicated motions. Large smooth surfaces allow large sweeping motions. A man touching one of my sculptures experimented with different ways of moving:

I kept bumping into things at every turn, then discovered that a very light touch allowed my hands to flow over the surfaces, to dive into the openings.

The degree of control an artist exerts over these possibilities can vary from specific and highly choreographed to more open and improvisational. These choreographic choices become clearer when the whole body is involved. A Bruce Nauman installation consists of a narrow passage between two walls that makes one move only back and forth within that narrow slot; one suddenly becomes aware of the limits of movement in two dimensions rather than three; the walls press in on one. Christo's *Fence* running across the California landscape invited people to follow its serpentine line over the rolling hills, reflecting the undulating qualities of the land.

The artist who works with haptics also works with emotion. Haptic sensations can resemble the sensations of emotions. Haptic sensations can trigger emotions as well as

evoke memories and associations that trigger emotions. Emotions may be precipitated by the textures, forms and spaces themselves or by one's movements relative to a sculpture. Even without fully articulate emotions, we have reactions of pleasure or displeasure, attraction or withdrawal, desire or repulsion. Since these reflexes of attraction and withdrawal frequently function unconsciously, the haptic artist would do well to consider them consciously and make them work for his purposes. Tactile sensations include those we consider negative or unpleasant. These sensations are as important to explore as ones we consider appealing. Rough textures, bewildering spaces and cold surfaces expand the range of expressive qualities in the same way that visual imagery can be disturbing yet expansive. Such a response may actually be easier to accomplish through tactile means than visual, given the capacity of touch to elicit visceral responses. Such qualities may stand on their own or be juxtaposed for contrast with smooth surfaces, organic shapes or warm materials, which appeal to most people.

Aesthetic touch may be confused or conflated with sexual touch. This overlap provides rich territory for an artist to explore through hapticity. The intimacy of artist, artwork, and perceiver within the domain of touch offers endless opportunities to investigate the dynamics of feeling into such conditions as boundaries, barriers, restraint, fear, withdrawal, sublimation, seduction, mutuality, trust, innocence, openness and pleasure. Actual touching moves these conditions into a more accessible, embodied mode. The membrane of aesthetic distance is crossed. The tactile work of art is able to enter territory that strictly visual work cannot. The close association of touch and sex also presents possibilities for exploitation, tastelessness and explicitness.

Because touch is so central to our early development, haptic experiences can cue emotions, memories and attitudes of childhood. By touching with the curiosity of a child and the awareness of an adult, we may restore some of the richness of childhood hapticity and dynamism to our jaded, habitual sense of touch. Becoming more conscious of tactile, kinesthetic qualities while touching may re-open some of the closed channels that were wide open when we were young. As adults, we are able to apply a wider range of

experience and understanding to exploring these sensations and how they translate—or fail to translate—into what we see. Since an artist’s task is to combine the playful, open investigation of the child with the discerning discrimination of the adult, touch is a useful way to tap into that blend of freedom and awareness.

Finally, a deep exploration of haptic and kinesthetic awareness generates a way of working based more in proprioception than in imagery (here the word *proprioception* includes all self-sensing—presence, location, motion, temperature, balance, pain, pleasure, emotion). One way to make art is to develop and refine an image in the mind, whether remembered or invented, and then make something that reflects that image to some degree. Another way is to work without images, responding to inner feelings and pressures. One creates images in the process, but images that emerge from the body and from felt sensing rather than from mental or visual pictures. I believe images crystallize from sensations in the first place, so bypassing the image to focus on the sensation or feeling or impulse may prove fruitful. Working in this way may provide more freedom and range of response. It can refresh forms and choice of medium and materials. Proprioceptive working processes may stimulate responses in the perceiver that are also sourced in the body and in proprioception. The dynamic relationship between image and sensation and between mental processes and somatic processes is well worth exploring.

The making of art we would consider primarily visual also benefits from haptic sensitivity and exploration by the artist. The more an artist is engaged with the sensuous reality of what he is depicting, the more that knowledge will carry into the image. When drawing a flower, the more one has touched each petal, leaf and stem, the more the final image will be informed by an understanding of the structure, textures and qualities of the flower. In making abstract work, sensitivity to the weight, pressure, movement, texture, mass and temperature of shapes and colors will increase their nuance and power. How

would they feel to the touch? How much do they weigh? How warm are they? Are they prickly or smooth? Hollow or massive? Rigid or flexible?

There are aspects of haptic perception embedded in visual perception such as subtle muscular sensations, spatial vividness, dynamization, projection, identification, and haptic memory and association. These elements of implicit touch contribute to tactile interest and intelligence in visual works and play a crucial role in the encounter with art that cannot be touched or would reveal little to the hand. These works appeal to the remembered, implicit and imagined sense of touch. Whether an artist is working toward a fully tactile piece or simply wishes to enrich the tactile values of a visual work of art, consciousness of the haptic dimensions of the working process and of the final product will enrich the work in unexpected ways.

Sculpture that calls for touch has emerged from the body of the maker and speaks to the body of the person who encounters it. A sculpture is a body like my own. How natural to meet this other presence with the touch of my hand.

I really got to know my own senses. I understand a lot more now the way the body reacts. When you feel something new it's very sensual.

Haptic sculpture silently draws the body into conversation. It invites a sense of participation and fullness of being that can only come from physical involvement. This kind of art knows heat and cold, inside and outside, mass and space, the play of forces and materials, the interaction of psyche and matter. By embodying such consciousness, haptic artwork models a different way of perceiving and even a different way of being. It reveals an orientation to self and world that recognizes the reciprocity of self and object and by implication, self and other. It recognizes the bonds that bind us in spite of differences of culture, language and point of view. It is not so much the object itself we are touching, but the sensibility that shines through it. The core of the aesthetic experience remains contact with another's sensibility communicated through the artwork and felt by the body. Touching is a medium for the flow of energy that runs from person to object, object to person, person to person, and culture to culture.

Chapter Ten: Please Touch

All the work of our abstract intelligence, art will undo and will make us retrace our steps and return to the depths of our own selves, where what has really existed lies unknown to us.

Marcel Proust, novelist

The tensions between sight and touch become compellingly vivid in the way art is exhibited in many museums: pristine glass vitrines contain objects like a Tlingit mask or a Tibetan vajra that were once embedded in ceremony, given body by costume, movement by dance, pulse by firelight, fragrance by smoke, rhythm by drumbeat, voice by chant, meaning by tradition, and life by the community, evoking forces both sensory and transcendent. They emerge from entire sensoria that differ from the modern Western sensorium.

Perception is not “private, internal, ahistorical and apolitical,” anthropologist David Howes tells us. “Perception is not just a matter of biology, psychology or personal history, but of cultural formation.” The history and anthropology of the senses and of the body reveal that other cultures, in both time and place, live by different sensory organizations and experience the world and themselves differently than contemporary Westerners do. Kathryn Geurts, an anthropologist who explores questions of perception among the Anlo-Ewe people of Ghana, found no category or word for the Western understanding of the senses—hearing, taste, smell, sight and touch—which she calls a “folk ideology” with no basis in fact. She found instead the complicated term, *seselelame*, which she translates as *feel-feel-at-flesh-inside* or feeling in the body. While our culture

makes clear distinctions between external senses (the classic five), internal senses (kinesthesia, proprioception, balance), and emotions (anger, happiness, love, disgust, surprise), the Anlo-Ewe seem to have a domain of bodily experience that encompasses and unites these states. *Seselelame* includes physical sensations such as the symptoms of impending illness, sexual arousal, heartache or passion. In other contexts it includes inspiration to sing or dance or speak, and in still others a kind of intuition. More broadly, it refers to a generalized feeling in or through the body, which seems to include what we would call cognition, affect, intuition, imagination, perception and sensation. *Seselelame* transcends the division of mental and physical. As one Anlo-Ewe person explained it, “You can feel happiness in your body, you can feel sorrow, and you can feel other things, like cold.” Although they may also use different words to distinguish certain phases of experience, such as sensation, imagination or cognition, the connections among them are valued, and *seselelame* is used for most of these inner states of being. Unlike our individualized, separate ideas of consciousness, the Anlo-Ewe speaker must analyze and imagine what the “messages” (which we might call sensations, emotions and intuitions), create within *other* people, indicating the intersubjectivity and collectivity of *seselelame*.

Guerts describes the Anlo-Ewe sensorium as oriented toward interoception: monitoring and stabilizing the internal environment—through balance, movement, and *seselelame*. The Euro-American sensorium is the opposite, oriented primarily to exteroception—providing information about the external world. Our popular understanding of the senses fails to include the internal, somatic, proprioceptive sensory systems. Guerts sees the Anlo-Ewe sensorium as providing a sense of unity that transcends Western divisions between the senses and between mind and body, self and other.

Not only indigenous cultures have different sensoria. Looking back a few centuries in European history we see evidence of different ways of perceiving—and conceiving—the world. In the medieval scholastic tradition, the life of the body lay not in physiology as we now know it, but with invisible, animating spirits. God made

everything for a divine purpose, including human bodies,. Cosmological, spiritual and physical truths were fused. In the multisensory cosmic order described by medieval theologians, the fall of Adam and Eve meant a fall of the senses, while Christ's resurrection provided the possibility for redemption of the senses. In practice, this entailed a firm control of sensory impulses and an acknowledgment of the cosmic, sacred dimensions of sensory perception. During the Renaissance the body was envisioned as a microcosm of God's universe. Correspondences between the human body and the cosmic body related vision to fire and light, hearing to air, smell to vapor, taste to water and touch to earth. These correspondences justified empirical observation of the body as a way to know the divine universe. Physical descriptions and explanations of the body's operations began to replace theological ones.

Rationality, the mind, and cognition began its rise to dominance during the Enlightenment, along with the associated sense of sight. The codification of scientific observation, the making of charts and maps, the invention of optical tools like the telescope and the microscope, gave new power to the eye, revealing astonishing new realms of reality that could never be touched. The "lower" senses—taste, smell and touch—came to be linked with intuition, emotion and sensuality, and were seen as obstacles to the establishment of the scientific, rationalist world view, which relegated women, the body, and the closely associated sense of touch to culturally minor roles. The age of sensory division and hierarchy is slowly yielding place of power to new fusions of the senses and a richer concept of sensory integration. Here is a worthy challenge for curators: to communicate the ways that an artwork made in the context of an entirely different sensorium reveals that culture's sensory systems. This perspective implicitly requires a new awareness of our own sensorium.

Art history has a historical bias to visuality that affects the way art is understood and displayed in museums. The museum itself is a phenomenon that emerged from the Enlightenment. Museums operate under a mandate to protect objects in their care for future generations. Touching can damage artwork, whether through slow, subtle changes

induced by chemical interactions or erosive wear, or dramatic effects such breaking or tearing. Most artwork is not made to touch and has not been built to withstand the impact of even occasional gentle touch, let alone the caress of hundreds or thousands of hands.

Yet Brenson reminds us:

For ideological as well as practical reasons, it continues to be very difficult for institutions to do justice to one of sculpture's essential and magical languages of communication...I am urging people to consider the contradiction within many museums, which strive to make people more responsive to the world around them while quarantining those audiences from a kind of sculpture that can help them feel more physically and spiritually grounded and therefore more connected to others and to themselves...How is it that the need to make sculpture that wants to be touched by a viewer's hand, and the viewer's wish to respond, continue to be largely dismissed in museums? Should the knowledge of the eye and mind be considered intrinsically superior to the knowledge of the hand? Is it really possible for cultural institutions to encourage respect and response without respecting the insight that comes with touching?

Just looking has never been enough. To be able to touch something and dig out its real meaning is a wonderful experience. It has given me a totally different view of the world.

One of the reasons why touching has become taboo, Brenson suggests, is the possessiveness implicit in touch, which is "a transgression against private property. For the most part, we are allowed to touch only what we own. Touching sculpture in galleries and museums may generate a sense of emotional and psychological ownership of objects that are institutional assets."

Touching art is like owning and for a moment possessing a thing of beauty.

This sense of possession can cut both ways. While it encourages the feeling of ownership that might somehow threaten institutional rights or the safety of the artwork, it may also strengthen people's ties with the artwork and inculcate a sense of responsibility to it, to the museum that owns it, and to the ongoing life of that institution.

I always complain how I want to become part of a painting or any piece of art—what better way than through touch. I almost feel as though I've taken something away with me.

Brenson pursues the powers of touching into still larger dimensions:

Touching may also actually encourage people to feel the weight and particularity of human beings, nature and works of art, and how then could they so easily assume it is natural to approach the world as something to exploit? In short, sculpture's inherent potential to break down the barriers between our intellectual selves and the 'other' may be as radical now as the overt social and political statements so many contemporary artists have been making.

He reminds us of the radical nature of touch. Rooted in the body, touch connects us to the authentic depths of life, to the common ground we all share. The barrier he describes “between our intellectual selves and the ‘other’” can even include the barrier between our intellectual selves and our own ground of being.

The rich heritage represented in museums can be bewildering to the museum visitor with little perceptual training or little knowledge of the worldviews embedded in artworks. The resemblance of museum displays to high-end commercial retail displays further obscures the radically different motives underlying artworks from different cultures. Many contemporary artists invent their own cultures, languages and rules. The sheer multiplicity of old and new aesthetic languages poses challenges to people's abilities to appreciate art. The decline in art education in schools has left many people without the tools or training in perceptual exploration that art making provides. If an

artwork proves too difficult to discern or understand, it remains inaccessible. Each failure to understand confirms the belief in one's inability to connect to art. Even without overt disabilities, visitors have native ways of learning that may prohibit ease of access; people whose intelligence is "bodily-kinesthetic" may be less able to make sense of things presented visually.

Multiple tensions are embedded in the project of art museums as we now conceive them: tensions between access and protection, education and conservation, collection and display, scholarship and personal experience, art-making and art history, past and present, public and private, mainstream and margins, privilege and poverty, social values and aesthetic values, contemplation and entertainment, ideas and perception, visual and verbal, seeing and touching. Most of these tensions reflect larger social issues, rendering the museum, one of our major cultural institutions, a nexus of powerful forces. As museums seek to expand and diversify their audiences, these challenges deepen for both visitors and staff.

Yet there is wisdom in the creation of a special place conducive to the encounter with art. The climate and quality of that environment has a profound affect on the visitor's experience. The context and the expectations, as well as the prior experiences of the visitor, are critical in determining the nature and quality of the art experience. The Kreitlers note that people tend to become more emotionally involved with a work of art when presented under conditions regarded as proper for appreciation of art than in ordinary daily circumstances.

For these reasons, art museums are effective places for the introduction of aesthetic touch. The respectful, thoughtful attention seasoned museum visitors confer on the objects they encounter carries over into the use of touch. People usually approach touching art with the same potential for receptivity, aesthetic distance, and personal involvement they use in looking. The museum context helps people focus their attention on the aesthetic aspects of touch rather than the manipulative and functional, which is found more often in science and children's museums. For people new to museums, the

invitation to touch puts them at ease, gives them direct experience of the art, and satisfies the natural impulse to know through touch.

This is much more comfortable. I feel wrong in museums. I don't know what I'm supposed to do or feel.

Touching can provide people with a beginning place, grounding their experience in personal knowledge, a knowing by the body of something real. Touching provides sensations, insights, and certainty that form a baseline and a set of references for further encounters with art, whether tactile or visual. After all, *this is the way we learned to see in the first place*. As children we forged connections between how things felt and how they looked, learning to translate touch into sight. When we approach a work of art, we may well meet forms we have never seen before, or materials we rarely encounter, or spaces we cannot fathom, or meanings foreign to us. Our deeply ingrained, natural habit of touching to find out about something rises to the surface. We touch *in order to know*. We seek to confirm and augment what our eyes tell us. We naturally want to touch physically what touches us emotionally. We touch to meet the intense presence of an artwork. We touch to bring ourselves in relationship to another time, place or sensibility. We touch to give ourselves pleasure. We touch to feed our inborn tactile hunger. We touch because we touch every moment of every day; touching is so integral to life that touching a work of art folds it into the realm of ordinary experience.

You just get to be. There are no expectations. You get to be and feel and there's no right or wrong in that place.

Touching can engender deep, unconscious feelings and would seem to bring us dangerously close to action. Yet aesthetic distance is built into the encounter with art. Aesthetic experience provides a safe, contemplative place to explore the feelings that arise. Art invites perceptual and emotional responses, but action is expected not to emerge from these responses. With aesthetic distance, the Kreitlers remind us, the perceiver is free from the necessity to act, be committed, take a stand, choose between

alternatives, create congruence between attitudes, emotions and behavior, or be logical and consistent.

By closely resembling normal activity yet remaining in the aesthetic, sensory sphere rather than the sphere of habitual reaction, aesthetic touch provides a powerful model for responses to the vicissitudes of the rest of life. We tend to think we have two choices in response to our feelings: to suppress them or to express them. Art, and even more so tactile art, provides the direct experience of a third choice: fully feeling the emotions but without acting or reacting inappropriately. This process of learning restraint in the grip of deep feeling is one of the crucial, if hidden, gifts of art.

When I first began exhibiting my tactile sculptures and interviewing people for their responses, I wanted to know whether people learned about touch or became aware of their perceptual experience. Many people observed how tactile perception works.

Things felt more: smooth surfaces smoother, levels higher and deeper than they looked.

Touch is linear, like reading. You're in the details right away

People are often inventive and inquiring with their touch, translating their haptic experiments into deeper understanding of the artwork.

I used both hands, outside hand trying to make sense in relation to the inside hand. There was pleasure in finding and joining hands.

Some feel an increased awareness of the potential for touch in their lives.

This reminded me of all the touching I do without really feeling what I'm touching. I want to feel what I touch.

Two kinds of intention are at work while touching: *mapping* and *sensing*. Usually people use a blend of the two. Mapping lies at the objective pole of touch: creating a mental picture of the sculpture by deciphering forms, relations and structures without paying much attention to the sensations. Sensing, which is the subjective aspect of touch, is feeling sensations for their own sake, without regard for form or image. While

mapping, one concentrates on deciphering the object; while sensing, one attends to internal experience.

Going more slowly across a surface gives a much different feeling.

People report two kinds of mental images. The first is images of the sculptures themselves, formed in the mind by touching. When their eyes are closed, most people create mental images of the sculptures that can be quite vivid. They take these images to be faithful renditions of the object itself. However, these touch-produced images sometimes prove to be different than the images created when people open their eyes. The visual image does not necessarily overpower the touch-formed image because the haptic image is formed first. The two images exist as simultaneous and separate.

The second kind of mental imagery consists of associations, metaphors and memories sparked by contact with the sculpture. People bring to the haptic encounter a lifetime of imagery stored in memory. In the case of one of my sculptures people had varied associations:

Labyrinth, theater, maze.

Landscape, my hands wandering over streams, ground, hills.

Canyons, mesas, arroyos, buttes, escarpments

People become aware of their perceptual processes. They step outside the ordinary, unconscious use of perception to observe perception itself; they notice aspects of perception; they compare two senses (usually touch and sight); they express gratitude and appreciation for their senses. Such responses pass beyond appreciation of the artwork to observe the very ways one comes to know and understand it. The vivid nature of touch, its novelty, and its separation from visual experience through blindfolds, can generate insights into perception itself.

The senses come together to give you an impression. It's nice to take them one by one, to add one at a time.

Many comments note differences between tactile and visual images:

Sometimes your eyes miss something that touch doesn't.

Many describe differences between how it feels to see and to touch:

The movement my hands made and the way my hands touched the piece were very different than looking at it. With our eyes we have to imagine the smoothness or sharpness of a curve.

Some notice differences in the perception of size and quality. The sculptures seem bigger, more complex, more engaging to touch than to see, or more beautiful.

Without sight they seem bigger, less constrained, don't know the boundaries.

People's responses revealed insight into meanings, appreciation for the qualities of the artwork, or awareness of being affected by the encounter. Many describe entering a different world or other dimensions; feelings of surprise, pleasure and peace; use of the other senses; the imagination being engaged; heightened sensitivity.

The world became magic for an hour. It was an invitation not to take the senses for granted.

At a stage in their developing relationship to art, people tend to discount their perceptions or feelings. They believe they lack adequate knowledge about art or what they are seeing. They lack confidence in their experience. The intimate, concrete nature of touch seems to cut through that disconnection and to disarm the inhibitions people may bring to the encounter with art. Touching is so direct and immediate that people are more able to sense and trust their own perceptions. Other than the general taboo against touching, people are not burdened with prejudices about how to touch art.

Touching without sight calls up different references and associations than seeing. Experience is organized differently. Different parts of the nervous system are engaged, producing a different range of responses. The concrete nature of the haptic encounter grounds people's experience in sensuous reality, even if the forms are abstract, unfamiliar or unidentifiable. To the sense of touch, these forms need not stand for something else, nor are they a reduction of something to its essential elements. To the touching hand, they are what they are. The intimate contact with the artwork is perceptually satisfying.

Meaning is embodied in the qualities felt by fingers and in the movement of limbs and

hands. Education or previous knowledge of art proves irrelevant to people's abilities to engage meaningfully with the sculptures. More important are curiosity and the willingness to explore, both of which are stimulated by permission to touch.

People flock to museums for many reasons: to encounter real artworks and the ineffable, subtle qualities lost in reproduction; to be in the physical, energetic presence of works of art and, by extension, the artists who made them; to experience their actual size and scale; to feel the three-dimensional, spatial qualities; to learn from the curator's point of view in exhibitions; to gain the understanding revealed by relationships among artworks; to enjoy the social pleasures of sharing such experiences; and to experience the evocative spaces and architecture of museums themselves.

The interactive, personalized nature of cyberspace will intensify pressures on museums to offer more interactive experiences. The illusory, virtual, visual overload of our lives leads to an increasing hunger for the concrete and the real.

A good work of art makes me yearn to reach out and touch it to see if the life, the textures, are real or illusion.

Museums need to be more inclusive of people with disabilities—both physical and mental. Some efforts in this direction reveal misunderstanding of sensory differences. Rod Michalko, who is visually impaired, writes in *The Mystery of the Eye and the Shadow of Blindness*, that blindness is often misunderstood as a “problem of knowing.” We assume that knowledge springs from sense perception, which in our culture today largely means the sense of sight. Therefore, he says, people believe that “the less we see, the less we know.”

Having no sight or limited sight means much more than restrictions in a perceptual skill. Disabilities of sight, especially radical losses of sight, call for the creation of different worlds, both inner and outer. Lack of sight or profoundly impaired sight alters a person's sense of identity, body, time, space, boundaries, relationships, environment, movement, imagery, and perception—nothing less than the sense of self

and the sense of the world. Michalko writes, “Blindness is not a shadow of sight but is, like sight itself ... destined for the development of an imaginative relation to perception, to making and remaking something of the world and to making and remaking its place in it.”

In rehabilitation following the loss of sight, the goals of sensory training are to recognize the realistic potential and limits of non-visual information; to organize non-visual information into coherent, usable form; to develop an awareness that responds spontaneously and accurately to new input; to develop an awareness of the environment to combat isolation and depression. Touching artwork is a useful way to address all these goals. Art provides an arena in which issues of survival and coping are not at stake. Exploring aesthetic touch can teach anyone, whether visually impaired or sighted, the limits and possibilities of haptic information. It can open new realms of sensory, aesthetic exploration and pleasure. People can learn how to organize perceptions into a coherent image or map by practicing with works of art, which are highly coherent, organized and self-contained. Aesthetic touch can refine haptic skills that enhance responsiveness in other situations. It can stimulate the imagination. It can forge a sense of connection to the cultural mainstream and to the larger stream of life. If someone has had sight, learning how to shift from reliance on visual information to reliance on non-visual cues initiates a process that closely resembles the creative process: translating from one sensory mode to another; moving from vague feeling to crystallized image; and transforming an image into concrete form. Creatively engaging with art through touch could enhance one's ability to make the transition from visual thinking to haptic thinking and world making.

Another problem for people who lose their sight is confusion between the perceived and the imagined. They may be unable to distinguish between the reality of a situation and how they imagine it. (People who have sight also experience this confusion). Art actually plays with the boundaries between reality and imagination. Experiencing artwork could be a useful way for people struggling with such distinctions to become more fluid with them, to make the imagination an *ally*. Rather than banishing

the imagined in favor of what can be confirmed as real, it is more effective to become familiar with the ways of the imagination and learn to trust its powers. People with limitations of sight need more, rather than less, stimulation to their imaginations. As sight loss reduces the physical, spatial parameters of the world, the need to expand the psychic, imaginative, spiritual dimensions becomes greater. Engagement with art is one way to develop these inner resources. By exploring a complex, meaningful object, by meeting the creative life of the artist embodied in the artwork, and by recognizing one's own memories, feelings and ideas, one's inner and outer worlds are magnified and unified.

Jacques Lusseyran writes in his essay, *The Blind in Society*, that blindness is a gift and a call to attention. He believes that blindness reveals potential we all possess. A person who is blind hears, feels and tastes better, but the condition that leads to this widening of the senses is not blindness as such, or a change in the acuteness of the senses themselves, but simple attention. He takes this principle even farther than awareness of sensory stimuli:

A really attentive person could understand everything. For this understanding he would need nothing that is tied to the senses. Neither light nor sound nor the shape peculiar to every object would exist for him, but every object would reveal itself to him in all its possible facets. In other words, he would enter completely into its inner world...from just this total attention the seeing are constantly diverted. So are the blind, but not to the same degree. For them remaining attentive is a practical necessity.... All our senses, I believe, join into one. They are successive stages of a single perception, and that perception is always one of touch...What the blind person experiences in the presence of an object is pressure. Perception, then, would mean entering into an equilibrium of pressure, into a force field. As soon as we pay attention to this phenomenon the world comes to life in a surprisingly different manner. No single object, no single being remains neutral. The oneness of the world is experienced as a physical event.

Many museums struggle with the quandary of how to provide full access to works of art. The problem of providing access for people with disabilities to art which cannot be touched due to fragility, age, value or non-tactility, is being addressed by various means; selective touch tours, copies of originals, raised line drawings, multi-sensory interpretations, and verbal description. These avenues need to continue to be developed and explored.

Another solution is to offer visitors the experience of touching original works of art designed for touch. Since little tactile work is currently being made, museums could commission it. This would stimulate artists to bring serious attention to this dimension of art making and encourage the development of haptic work. It would generate precedents, standards and criteria for haptic art.

However, given that aesthetic touch is little understood or practiced, and that curators lack haptic awareness, there is real danger that artists' attempts at making haptic art will be misguided and superficial, and that visitors and critics will fail to take haptic work seriously. The situation needs to be remedied at all levels: artists, curators, museums, educators, critics, funding, and audiences. Hapticity is a language and a facility different than sight. It needs to be developed and built into a collective body of knowledge. Artists could take the initiative to create tactile sculpture. Art schools could integrate haptic perception into their curricula. Museums could provide artists with actual experiences of touching art. Museums could allow limited touching and the context to support it. Curators could research and develop guidelines for exhibitions that lead people through the development and refinement of their sense of touch. Visitors could provide feedback to artists and museums. Grants and fellowships could stimulate the creation of haptic art. Critics could articulate criteria for effective haptic art, as Brenson has begun to do.

Museums allowing and encouraging inquiring, respectful tactile exploration of selected artworks would go a long way toward engaging visitors, enabling them to feel at

home, and conveying the emotional power of art. In touching, we achieve immediate, concrete knowledge, cutting through psychological and sensory barriers. Touching catalyzes our perceptual history and personal memories. It reduces or eliminates the distance between ourselves and the artwork, the artist, other times and places, and other sensory possibilities.

Tactile experiences can introduce or be woven into visual exhibits, providing visitors with a grounding in their senses that informs the visual reading of the rest of the exhibit. Because haptic memory deeply underlies visual perception, actual haptic experiences appropriate to the content of an exhibit can bring these memories to the surface where they remain accessible to visitors moving through a visual exhibit. We are talking about more than just offering samples of materials for people to feel; the possibilities are legion and remain to be invented.

The design of exhibitions can incorporate haptic, kinesthetic understanding to support full-body perception of artwork while remaining visual in interaction. Fred Light, curator of African art at Yale University Art Gallery, creates installations that use curved rather than straight lines, that install no glass between visitors and objects, and that offer life-sized videos to immerse visitors in the world represented. The use of sound, lighting and odors can stimulate multisensory responses that deepen visitors' grasp of what they are seeing. Many artists are already working in this way; the rise of installation and environmental art expresses the collective desire for immersive experience. The traditional Western separation of the senses no longer holds—scientifically, aesthetically or museologically. Museums are challenged to reflect and provide access to old and new sensoria.

Chapter Eleven: Sense of Connection

Touch is the sensory mode that integrates our experience of the world with that of ourselves...my body is truly the navel of my world, not in the sense of the viewing point of the central perspective but as the very locus of reference, memory, imagination and integration.....

Juhani Pallasmaa

The essential nature of touch is connection. Touching an artwork, we know it with an intimacy and intensity similar to the artist's. We feel connected to the person who made it. We become familiar, as the artist does, with the materials, textures and shapes that she has cut, bent, turned, carved, welded or built. Our motions mime those of the artist, giving us an embodied sense of his gestures, movements and ways of working. We can know or imagine more closely the choices he made: whether the surface was carefully finished or left rough; how the materials were torn or poured or molded; how casual, bold or delicate the gestures used. We can feel the hardness, softness, malleability or rigidity of the materials and the kind of effort needed to work them. We can feel the imprint of the artist's hand.

Touching makes everyone a participant in the creative act. When I touch, I come to know, understand, and find meaning in the artwork through the intelligence of my hands and body. I approach the artist's process by embodying the creative process. I recreate the artwork through my actions, bringing it into being for myself. Every touch is a small creative act that draws what I touch through my past experience; in touching an artwork I construct a unique version of it through these many small creative acts. Touching builds an experience of the sculpture inspired and directed by the object but ultimately the fruit of my own actions.

It hit me on a personal level, one which I've never experienced in a work of art before. That feeling is very close to the feeling of creating art.

Touching connects the artist to the person who encounters her work. Before making haptic art, the people who experienced my work were not included in my working process in any conscious way. We know so much about visual perception that I figured I could assume the operations of other people's perceptions. But so little is known about touch, especially aesthetic touch, I had to learn from the people who touch my sculptures, creating an unexpected collaboration. I provided them with haptic experiences and they taught me how touch works. I would then integrate their reactions into subsequent sculptures.

Working as a tactile artist, I take into closer consideration the people who experience my sculptures, both as I make them and as I exhibit them. Because I began by making work for people with disabilities, I learned to consider how people would (or could) come to know my sculpture. I had to re-think the simple act of encountering an artwork. I am mindful of how and why people will interact with the sculpture and how to support that interaction. I consider what it might be like for someone who is disabled, whether physically, mentally or sensorily, to engage with the sculpture. I consider people's height, the scale of body parts, the ability or propensity to reach and move in various directions, and the abilities and limitations of hands and bodies. I have to make the sculptures substantial enough to accommodate the touch of many hands and to evaluate how a structure or material will bear up under countless handlings. I need to think about where it will be exhibited or reside, how many people will be touching it and how much touching it will be able to absorb. This complex, constant consideration of the perceiver's presence and performance has generated a different attitude toward the person on the other side of the artwork. He or she serves as collaborator, as the one who completes the artwork. The artwork itself becomes a meeting place, a nexus of feelings, stories, questions and answers, for me and for the person who touches it.

Touching is an act that bridges the gap between private and public. Touching moves the interior dimensions of the art experience into the open. By reaching out to touch a sculpture, I break out of the privacy of standing and looking. I move out of my own small kinesphere. I inhabit a more public space. I reveal to others my curiosity and interests, my direction of inquiry, my way of relating and moving. My actions invite others to reach out and touch. I participate in, share with, and sometimes even influence, somebody else's encounter with a sculpture. Through touching, I may wordlessly share my experience of an artwork with other people as we explore together in a common space.

This is what art is for: transformation, communication across seemingly impenetrable barriers.

As we become increasingly global in our awareness and our actions, art proves to be a crucial means of communicating our differences and commonalities. Touching is an act and a metaphor that connects people *through the body*, which we all share in spite of differences and conflicts. Brenson recognizes the political implications of this kind of connection:

Touching may actually encourage people to feel the weight and particularity of human beings, nature and works of art, and how then could they so easily assume it is natural to approach the world as something to exploit? In short, sculpture's inherent potential to break down the barriers between our intellectualized selves and the 'other' may be as radical now as the overt social and political statements so many contemporary artists have been making.

Meaning can pass from artist to perceiver through touch alone, *bypassing* the conscious mind, traveling directly from the body of the artist into the body of the sculpture and into the body of the perceiver, without mediation of thought or ideation.

Touching ushers the body, both private and public, into the encounter with art. To include the body in the experience of art returns us to the root of our experience, to our senses.

It brought me down to earth, back into my own individual psyche, using my own senses to form what is reality in my surroundings.

I had a moment of rest, like touching a woman's body, a sense of ease and peace. I realized kinesthetic peace is more real to me than visual.

Touching is a joint connecting me to the world. When I touch something or someone, when I grasp a tool, when I step on the ground, I temporarily become joined or hinged to that which I touch in a relationship of mutual leverage, an exchange of forces. The different kinds of joints in the human body can serve as metaphors for different kinds of touch. Joints (and touching) can be a seam like the sutures in the skull, which have very subtle, surprisingly affecting movements, or can move along a single axis like the finger joints, or can swivel in many directions like the shoulder, wrist or hip joint. When an arm swings from a shoulder joint, the rest of the body stabilizes and counteracts the motion of the arm (think of pitching a baseball). The interaction is always simultaneous and levers in both directions.

Lewis Hyde tells us in *Trickster Makes this World*, a meditation on the trickster figure in various mythologies, that the Latin word for a joint in the body is *artus*. From this root we derive the word “articulate”, meaning the joining together of bones as well as carefully jointed speech. We also receive the word “artisan,” which is a “joiner” or maker of things. The joint is where the archetype of the trickster operates, Hyde tells us, either to disjoint the old order or to re-join things in a new way. The joint between bones (as in carving up a sacrificed animal to apportion to the gods), the joint between materials (as in a house where wood meets ground), the joint between order and disorder (as in rules about behavior), the joint between the gods and humans (as in ritual), are sites where change can occur, where the boundaries are subject to alteration and reordering. The joint

is the site of motion, interaction and creativity. It is also a place of vulnerability, disconnection and disruption.

Touching is such a joint. It is the moment and the place where vulnerability and openness to new possibilities meet. Where two forces leverage each other. Where action, interaction and reaction convene. The responses of people who touch my art suggest there is often a re-ordering of the relationship, a re-drawing of the boundaries to include more of themselves and the sculpture on both sides of the joint.

Art too is a joint, a hinge, an *artus*, an artifact between an artist and her unconscious, between artist and perceiver, between perceiver and world, between perceiver and the unconscious. A work of art is a site where the poles of reality meet: order and disorder, form and formlessness, physicality and imagination, old and new, meaning and chaos. A site where motion occurs. The ensuing motion may strengthen the bond between both sides. It may also strain or break the bonds. In the most traditional arts, objects are made in highly prescribed ways to maintain the sacred contract with the gods. Yet even in these traditions, in which the forms are fully delineated and bear the weight of time and sacred authority, small changes creep in through the hands of their makers and shifts in the culture. Traditional arts work with deep, subtle movements like the sutures of the skull. In the modern Western art tradition we have made a virtue of highly mobile joints like the shoulder. We value the flamboyant flinging of arms. We play with the disruptive breaking of barriers, the forging into unexplored territory, the reformation of boundaries. This kind of joint or art is a swivel: the limbs can move in many directions and all prove more or less effective. Like the shoulder joint, this way of working is more vulnerable to dislocation and disconnection. Whatever kind of hinge is forged, connections made by the artist and the perceiver establish joints between the known and the unknown.

When touching, which is a kind of joint, is included in the encounter with art, which is also a joint, the combined power of art and touch to bridge, connect and create a new kind of motion is profound. Touch joins another person's subjectivity to our own.

Our inner tensions and forces join the tensions and forces within the artwork. The truth of connection bridges the gap of disconnection. When touching an artwork, we experience the possibility of transcending divisions and estrangements. Disconnection, distance and abstraction are overcome. Imagination and reality fuse. Dualism melts in the warmth of touch.

Touch is the embodiment of connection, which is Eros. We assign the realm of Eros, son of the goddess of love, Aphrodite, to the sexual dimension of life. Yet Eros fundamentally means connection. It represents all kinds of love and all kinds of connections. We may establish connections of the most intimate and affecting kind, whether with other humans or with the non-human realm, through the body-to-body exchange of touch. When I touch something, I join my fate to it, however briefly. Touching links my core with the person, the plant, the rock, and the sculpture that I contact. In this sense, any touch is erotic.

Today two fundamental human needs remain in jeopardy: the need for connection—Eros—and the need for meaning—Logos. The need for connection runs through all levels of our splintered culture, from mind and body to spirit and politics. The need for meaning is equally desperate and closely related to the sense of connection. Both connection and meaning are fundamental gifts of the arts. Artworks are concentrated manifestations of symbolic, formal, emotional meanings. The perceptual act of engaging with a work of art creates multiple tensions that find resolution in recognizing similarities, discerning differences, integrating contrasts, and creating meaning. Meanings in artworks are not singular, monolithic or objective. The multiple, ambiguous, referential nature of art ensures that the meanings embedded in an artwork remain open-ended enough to allow people to find their own meanings. Meanings are catalyzed by the maker, embodied by the artwork, and discovered by the perceiver. Artworks generate the shared symbolic and imaginative glue that binds and defines a culture within a universe of meaning.

By combining touch and art, Eros and Logos, we magnify the power of connection and meaning. The synergy affects people's experience in transformative ways. When I immerse myself in a work of art, I may enjoy an elusive memory, a transcendent feeling, or an insight about life. Touching can intensify and complicate that experience. Meanings arise not only from the forms, spaces and textures, but also from my gestures, from my body's responses, from my memories, associations, dreams and beliefs. Standing on the ground of this palpable connection, I am able to explore beyond my self-defined boundaries, both outward and inward.

The deepest eros of touch is not sexual intercourse, but the constant, subliminal, energetic connections flowing between my core and the world around me. By its very nature—and there is nothing esoteric here, nothing to *do*—the somatic senses operate at all levels of the body at all times, fusing surface and depths and world in a seamless communion that transcends boundaries and categories.

Ultimately, this most physical and grounded of senses can stimulate a spiritual connection to the source of meaning. Brenson says:

When hands do pay attention they open up a process of exchange and also of healing. Placing hands on someone delicately, gently, is a way of tending, of taking a pulse, of relieving unease. But in responding to a sculpture's silent call, it is not the sculpture that is healed, but oneself. One hears own silence more clearly.

Through the somatic senses we may create steppingstones toward a felt unity of perception and memory, reality and imagination, self and other, body and spirit. The scholar Stella Kramrisch says about touching icons in India, "...the rite of touching evokes the presence, at the spot touched, of the essence that informs the shape." In the practice of tai chi chuan, the press of feet on the ground allows connection with the powers of the earth, opening the practitioner to the Tao, the way of truth. That kind of

touching suggests the possibility for the kind of connection that leads into ever-larger fields of awareness. Whether touching is a ritual act or simply a conscious appreciation, we become larger than our own small circle of body and mind.

As tricksters have shown us, how you order the chaos makes for completely different worlds. What happens if we draw the boundaries differently? Renee Weber considers the question in *Touch: the Foundation of Experience*. Weber extrapolates from philosophical writings three models to describe three different uses of touch: the physical-sensory model, the psychological-humanistic model and the field model.

The physical-sensory model focuses on direct, physical contact. Intention is irrelevant. Scientific explanations of touch and perception fit here. While there is much to be learned from this approach about the mechanisms of sensory perception, it provides no place for meaning or value.

The psychological-humanistic model includes the purposive interactions of people and the feelings involved. Social exchange and communication are seen as basic facts of life. Meaning is as fundamental to this way of conceiving touch as sense impressions are for the physical-sensory model.

The field model encompasses the other two and goes farther, proposing that people and things are interconnected, local concentrations of the dynamic, universal energy that permeates all matter. People affect each other through thought and emotion as well as direct touching. Intention is the key to human interactions. This intent is a force with direction and magnitude. Weber sees an example of the field model of touch in the image of God giving life to Adam in Michelangelo's fresco in the Sistine Chapel. God reaches out to pass the spark of life to Adam. In Michelangelo's conception, touch is a creative principle inherent in nature, represented by God. Touch is the animating force that brings life to the fully formed but lifeless, passive Adam. God's full force reaches toward Adam's hand, but the two hands do not actually meet. Far more powerfully, the force flows from cosmic hand to human hand in an intuitive example of the field notion of touch. God's energy flows into the receptive emptiness of Adam's potential.

Touch as an energetic interaction between elements within a universal field generates a much larger picture of what occurs in the sensory exchange. Subject and object, person and thing, person and person, are seen not as separate elements that must meet and touch in order to overcome their separateness. They are understood as already communicating. The tactile meeting visibly and palpably seals the relationship, flexes the joint, and creates a stronger impression of a union that already exists. Touching is an expression and a confirmation of connection.

Collectively we live in a culture that emphasizes the physical-sensory notion of interaction. Many of us also believe that meaning and feeling define being human. The field model takes us into a realm of possibility that can transform our vision of ourselves and of what happens in the haptic encounter. This way of understanding shifts our awareness from self and object to the larger field that encompasses both. In this context self and object become energetic fields rather than bounded entities. As my field approaches another field, we are touching before we actually touch. The reciprocity of touching means a flow of energy in both directions. Reading the surface of a sculpture through touch is to give detailed form to an energetic phenomenon.

The information that flows back and forth in the tactile exchange is sensory, emotional, intuitive, imaginative and energetic. Most of us acknowledge that touching means an exchange of sensory information, that touch can evoke emotional responses, and that intuition and imagination are sparked by the encounter. Most of us are willing to acknowledge that an energetic interaction occurs during interpersonal touching. Yet we are more reluctant to extend that kind of energetic exchange to the non-human, “non-sentient” elements in our environment, such as chairs and stones. A sculpture is such an “inanimate” object, yet the work of human hands, alive with intention and gesture and haptic intelligence. Touching a work of art may connect us to an experience of the energy and sentience inherent in all things.

I have been advocating greater consciousness of touch and deeper awareness of the role of touch—both actual and implicit. Yet touch remains *unconscious* for most of us most of the time. Touch resists being known. It evades scientific scrutiny. Elusive and inexhaustible, it reveals watery, half-lit worlds within: sensations, feelings, memories, and meanings. Touch is Hermes the messenger, weaving together the conditions of body, world and self.

I felt a strong stirring in my soul for some sense I'd long hidden.

I began to make haptic sculpture because I wanted to make art for people who could not see. I wanted to reduce the alienation people feel from art. I wanted to make art museums more sensuous and welcoming. I hoped to re-enchant the world.

I sought to give rightful place to the body in the art experience. To understand and expand the body's ways of knowing. To awaken people's bodies to their native sensory authority.

I needed to melt the boundaries that separated me from the world and to eliminate the physical, emotional and aesthetic distance I felt. I wanted to make coherent and meaningful a fragmented, meaningless universe.

My journey started with the outermost skin, where I meet the world. Digging below the surface, I followed the trail of hapticity into the interior of the body, into the lineaments of movement and deep proprioceptive sensations. By diving deeper and seeing the continuity, the boundaries paradoxically dissolved between surface and depths, between inner and outer, between subjective and objective, between self and world. Touch by its very nature creates a continuum of experience that transcends the mental divisions separating me from my depths and from the world around me. I found my place in the world by touching it.

I also found that touch gives us access to extraordinary abilities by extending our ordinary abilities. It balances and deepens perception. It humanizes the attitudes flowing from our sensorium.

I grasped more fully the powers of art. Touch was the missing link in my art education. Plumbing the somatic senses has transformed the methods, meaning and purpose of art. I now know that art is made and experienced by hand, body and heart as well as eye and mind. The body is central to the aesthetic experience, whether making or meeting works of art. A rich, silent dialogue between body-mind and artwork informs every instant of the aesthetic experience. Art embodies, expresses and enhances the many levels of communication within our individual selves, within society and among cultures.

Touch and art unify matter and mind. They merge surface and depths. They fuse concrete, palpable reality and ineffable, spiritual dimensions. They marry new ways of knowing and ancient, innate wisdom.

