

APPENDIX 1

THE ARTS IN COMBINATION

Combining the arts is an art form in itself judging from the fact that the results can be banal or magic. What is most relevant to our discussion is whether arts can combine in such a way so as to form true hybrids, that are unlike either of their parents, or only so as to form associations, i.e. juxtapositions in space or simultaneities in time? The implications of this question to the integrity of the spectrum are significant. If a true hybrid is possible, it would be entitled to a new place on the spectrum. There would be a sudden explosion in the number of positions on the spectrum, as we are faced with assigning places to hybrids of two, of three, or even more arts.

> SONG

In a molecular compound the properties of the original elements are lost, and new ones replace them. Can we see the properties of the original arts when they combine? We will tackle this question first for the case of song since, for most people, it represents an almost perfect blending of two arts. We hope to show that in song music acts to significantly distort the temporal flow of the poem while the poem does little to distort the internal properties of the music. That it is clearly music which is the "host" for their combination.

> PITCH

The fact that we can speak of the rhythm, tempo, melody, cadence, inflection, of either a poem or a piece of music, lends credence to believing that a true union can be formed between them. It is however precisely in respect to these things that the differences between music and poetry show themselves. We look at pitch first. We could, if we wanted, construct a musical melody to parallel in pitch the succession of pitches that occur in an English sentence, but the results however would be "unmusical". Music is built out of notes, entities whose identity is primarily based on a constant pitch. When we speak, the different vowels and consonants in every word and syllable each have a specific pitch, but the sequence of these pitches is not determined by their sonic accord, and are indeed barely noticed by us as a separate phenomenon. A musical melody is usually confined in a relatively narrow band of pitches for purposes of coherency. The pitches in an average sentence vary widely and wildly. An "s" or "sh" causes pitch to suddenly rise very high. Vowels, in contrast, are pitched much lower. The quick succession of vowels and consonants in speech, while abetting our distinguishing one word from another, would cause a very jagged melodic contour if imitated exactly in a musical melody. When "setting" a poem to music, musical pitches usually change in tandem with the syllable and not with the sounds within the syllables.

> RHYTHM

How a poem fills time is one of its most important qualities. However in song, poetic rhythm is conspicuously altered in song to fit music's more wanted rhythms. The latter, in practice, form a fairly restricted set, being based usually around ratios of integers (1:2, 2:1, 1:3, etc.). The closest analogy in speech to rhythm in music is in the duration that each spoken syllable has to another. These ratios show less uniformity than those of music. It is rare for any two short syllables, or any two long syllables, in the same passage, to be of the same exact duration. Although music may make a nod in the direction of following speech rhythms, there is little precise correlation. One syllable is often divided over several melody notes; so that a single syllable becomes itself a rhythm.

If music and poetry blended perfectly we would expect there would be a way of finding a specific musical rhythm that best corresponded to a given poetic rhythm. To put it more strongly, one should be able to retain the same rhythm in the arts' joint setting as in their separate settings. How far this is from the case is obvious by listening to two equally fine musical settings of the same poem.

It is often difficult to follow a poem as a poem when listening to it set in a song. To retrieve the poetic meaning we often have to follow along with a printed text, or step back from the flow of time in the song at the end of a phrase, and reconstruct the last line of the poem in our imagination. Whether we take a given work to be music or poetry largely depends on the use of rhythm. Dovening, for example, strikes us as being more at poetry than music.

> DIFFERENCES BETWEEN COMPREHENDING SPEECH AND
>> COMPREHENDING MUSIC

In poetry it requires a good deal of rhythmic repetition to instill a base meter in the listener. Once established, individual feet can then modulate upon the base without the listener losing sight of the meter. In music, a larger set of rhythmic variants can exist, and sooner, while still revealing the same base meter to the listener.

Verbal meaning puts an extra burden on sound beyond its purely sonic qualities. As a result, music retains comprehensible at tempos slower and faster than at those at which we can comprehend the meaning of speech.

The brain has the ability to single out and follow one voice among many in a crowded room. It is unable to follow more than one voice line at the same time. Instead there is a conceptual miasma that is at best a quasi-musical effect. With music, a trained ear can follow more than one voice simultaneously.

Each vowel or consonant has a different timbre. A single verbal voice line is thus a very fast succession of widely different timbres. Music usually defines a single voice line through the use of a single instrumental timbre.

In music, harmony is primarily a relation of pitches, in poetry harmony exists more in terms of timbres.

> A MUTUAL DIALOGUE

When listening to the song, within its artistic time, there is no way of knowing whether the music or the text was created first. They appear together as both newly born. We should not think that one is a setting of the other. Though different, they are engaged in a spontaneous dialogue, each comments, in real time, on the what is presently going on in the other. At its best, music may express almost identical emotions as the poem, with the result of a mutual intensification.

Translating a poem into a foreign language is also a commentary. Translation puts the original poem through a kaleidoscope; different translations result in different poems. There are as many possible translations of a single poem as there are interpretations, just as there are an endless number of two-dimensional perspectives on a three-dimensional object. The translation tells us at each turn what the heart of the poem means. One can do this also in the poem's original language by writing a poem or descriptive prose.

One of music's deepest well springs is folk song. Music has the power to make its words glow, which luminescence is lost when the words are recited.

> CONCLUSION

When poetry and music combine it is usually poetry which bends its usages to the music. Song, at most, is a mutual commentary of two arts, with one art in its proper and original form and the other distorted to fit the former. Similarly a painted sculpture is a sculpture, a poetic play, a play. This however does prevent one art from enhancing the other¹. Mendelssohn's music is delightful to hear during a performance of *Midsummer Night's Dream*, but the music sounds just as good alone and does not need the play, nor does the play need the music. If we hear a song in an unrecognized language, it is still a song to us.

> ONE TEMPORAL WORK WITHIN ANOTHER

Any two temporal works of art can proceed simultaneously in time, and the result will vary from unrelatedness, through chance moments of synergy to mutual dialogue. The word arts are always closely allied. As a painting can appear on the surface of a sculpture, so, figuratively, poetry can appear on the surface of a drama or work of literature. Such poetic islands offer special beauty to the work. We can get off our literary cruise ship and visit them before resuming our trip, but we remain aware that we are on a cruise. The time of one embraces the time of the other, but not vice versa.

One temporal art can take up temporary residence in the time of another, usually in one nearer the center of the spectrum. Singing and dancing may occur in a play, but the reverse has less meaning.

> COMBINING TWO EXAMPLES OF THE SAME ART

Works of the same arts can intertwine. Music is quite tolerant of the simultaneous presentation of two separate works. All the basic structural elements of one (intervals, chords, melodies, etc.), simply combine to form new ones. Components of one can distort those of the other, and the results

can be equally intentionally or unintentionally sublime or confusing. One piece momentarily seems to inhabit the other giving it added meaning.

When two poems intertwine there is overall loss of meaning with brief moments of gain. We lose the ability to connect the words belonging to one poem. The effect tends towards noise or music. Two poets however can intertwine in their creation of a work.

Images in animation or photography which can fuse simultaneously in the same space, but only as long as we are content with abstractness and do not need to hold onto representational meanings that pertained to the original components. The result is simply a different form. When the artistic space is not our own, it has the ability to absorb the content of endless different spaces into itself.

What animation can passively tolerate, in dance would result into a physical collision, and therefore a change to each component dance. As the dancers steer around points of immanent collision, there will be a tendency for the two works to evolve into a single work. Similarly if two plays unfolded simultaneously, there would be two sets of actors occupying the same space. It would become like the everyday reality in which simultaneous actions are taking place all the time, each in a different stage of its evolution. Like two trees that grow towards one another and eventually intertwine their branches, so a play like King Lear might have been originally two plays, Lear's and Gloucester's.

In the later works of James Joyce, we can see different sentences combined into one sentence. A word from one sentence interpolates itself between a pair of words that could have been adjacent in another sentence.

Starting with animation, the space of a work can be divided into different sections. Different works can happen in each, and while they may be unknown to each other, they are simultaneously known to us.

Any two spatial works can be fused into one. That of two works of architecture being the most fascinating to conceive, as at one moment we might be in the room of one building and at the next find ourselves in the other. The idea of two buildings thrust through each other is fascinating. We would be in a room of one, and come across a wall from a room from the other. Eventually we would put a door in to allow us to continue moving forward and not being blocked. Eventually a structure would evolve that was made whole.

To effect these combinations, temporal works of art, initially separate as to the date at which they show up in our everyday time, must be brought into the same time. Spatial works of art are initially separate in space, and must be brought into the same space.

A work of art can quote another work of the same art. In the last scene of Don Giovanni, Mozart quotes himself. A photograph can be taken of a photograph. Is still the same photograph?

> MUSIC AND THE OTHER ARTS

Music, the most temporal art, has the most power to bring out latent temporal tendencies in other arts. It can be used in conjunction with every other art. Music lies just over a border where everything definite has just passed out of reach, where everything is indefinite but more intense. It lies so close to the definite that we are often impressed with how music seems so specific and yet unable to be labeled. Music however can cut across this border and act as a catalyst to aesthetically "accelerate" certain reactions occurring on the more definite side. It can pick up and carry forward in time a stray hint of a motion or emotion, one that is no more than virtual or nascent, develop it and increase its resonance. It can do it for a line in a painted face, or the look on an actor's face. Music lends time to that which does not have time. In a spatial art, it completes the gesture frozen midway in space by taking it out of space and completing it in time. The fact that the spatial image doesn't change doesn't contradict this, the music invites us again and again to see the image as about to move and complete itself in time.

Music is one of the few arts that can successfully accompany any art producing desirable aesthetic results. When music is joined with another art, music can predominate as in song, music can be subservient to the other art as is most movie music (with the result that the music often lacks internal cohesion and structural integrity), and in rare cases music and the other art offer equally valid artistic experiences ².

Music can teach us how a director would have us react to a situation. While the other temporal work continues on in time, music pauses and dwells on a momentary feeling or image, stepping out of time relative to other art and either make us remember something from before or foreshadow what we do not quite know is coming.

Music tends to show up more on a continuous basis when used in conjunction with arts near the left end of each side of the spectrum (poetry, animation, dance, painting or sculpture). It is used more intermittently in theatre and film. Architecture is unique in that the concert hall 'houses' the music and by affecting the quality of the sounds in some sense *is* the music and the architect, as a spatial artist, has a profound effect on how we perceive music temporally.

> MUSIC WITH DANCE

Both music and dance deal with motion in a primary way. When they occur together, dance benefits the most. When the music is good, one can concentrate on the music to the exclusion of the dance without feeling that anything is lost. If at the same time, we were to concentrate on the dance to the exclusion of the music, the result is less certain. Motions suddenly seem limited, lifeless or repetitious. Much of the quality we impute to a dancer's movement often lies in the music which fills the cracks where lack of subtlety or only a rough continuity exist on the dancer's part. Music though was capable of creating this richness by itself without dance.

Musical structure often provides structure to the dance, it being hard to make a coherently unified structure in time with just movement. The dancers themselves may depend on music for a pulsation to provide energy to their motions. When music borrows from dance, as it did several centuries ago when it incorporated body rhythms into the vocabulary of musical rhythms, it is so thorough that no sense is left of the origin.

> MUSIC AND FILM

Film, like poetry and literature, deals with images except its images are overt and not imagined. This definiteness also curtails imagination. This music can add back. In bad films music, scenes often rely on the music to make their effect. Music can "react" to what we see, and help us react when the acting is insufficient to prompt us. Great music must be severely curtailed to fit a film otherwise it will divert interest from the film. Extended musical excerpts do not work well in film. An example is the adagio movement of Mahler's 5th Symphony in the film version of Thomas Mann's "Death in Venice". Ingmar Bergman's uses the great Sarabande from Bach's Second Cello Suite in "Through a Glass Darkly", but the excerpts are brief and occur when the emotion has already reached a feverish pitch. Into that unbearable chasm of feeling the music suddenly resounds like a peal of thunder.

> ARTS NEAR THE CENTER DESCRIBE AND PORTRAY OTHER ARTS

Arts nearest the center of the spectrum, narrate³ or describe, including *portraying* all the other arts. One can film a play or performance of any temporal art, or describe its performance in prose. As film and literature are the external and imaginative flip sides of the same art; filming a work of literature is tautological. Film can run in tandem with a performance of a temporal work, literature cannot. Photography and painting can depict any other work of spatial art. There isn't the difference that applied to literature and film, both portray visually without words.

A film of a painting pursues its own path through the work's space. Parts of it appear newly created at the leading edge of the direction of the camera's motion, just as in a symphony the future, an unknown, is just being revealed to our perception. Other parts remain unseen until a later time. What we see may or may not be seen again. The entire work may never be seen at once. Some of it remains only in the past as memory. As with music, our sense of its whole is derived only through the parts. At any time the film might decide to stop and concentrate attention on just one portion of the canvas; but for how long? When it resumes, will it pick up from where it stopped, or will it resume suddenly somewhere else on the canvas. The order in space and in time, in which we see the painting, is taken out of our control. Relations between parts will depend more on time than on space. Only in the sense of limit does the work's content in space remain a constant presence in time. These are all traits of a temporal work of art. In other words what we are experiencing is essentially a film, even though it is *of* another art form⁵.

In dance, we share the same space with the performers. However in a film of a dance, the camera can switch instantaneously from viewpoint to another, something we could not ourselves, but which only others' eyes can do for us, and only if the work is in a different space than we are. By the properties of space and time, it is a film more than it is a dance.

Any art work that has an external physical appearance can have a moment of that appearance represented by painting and photography. Thus there cannot be a film or photo of music or poetry, though one can portray the musicians or the poet or the effect the performance has on others.

> THE ARTS NEAR THE ENDS OF THE SPECTRUM ENHANCE OTHER ARTS

Arts nearest the ends of the spectrum are most effective in *enhancing* other arts rather than in describing them. Music enhances the temporal qualities of other arts. Architecture helps "amplify" the spatial qualities of other works of art, literally so with music. Not acting in time, it does so passively, by being the best possible housing and environment in which to embed the work. Music and architecture themselves have a special relationship. Music brings to life the space of architecture, architecture gives body to sound.

> MIGRATION ALONG THE SPECTRUM

Arts tend to *migrate* on the spectrum towards a neighboring art. Each art contains within it leanings toward the next art. Music wishes its phrases to *speak*⁴, poetry its images to come to life and move on their own, animations its figures to dance as if alive, dance to act out a human story⁶, theatre to suspend action so that it can step back to describe, the narrator to be able to conjure images without needing words thus repeating the poet's quest towards animation, film to create an image so potent that it would stop time, painting to lift its image out of its protected space, off the canvas and urge towards our space, sculpture to challenge and reform our entire environment, architecture to flow as if unconstrained by space.

As a result of these yearnings, an art might alloy itself with another art as a way of strengthening itself or may completely transform itself into the neighboring art. Often, at the end of such a process, an art will be brought back to its original form through a desire to purify it by ridding it of accumulated appurtenances.

> A COMMON PRACTITIONER. COMMON TRAITS AMONG ARTS.

When artists work with equal ease in more than one art, the arts are often adjacent or close on the spectrum. It is rare when the arts lie on different sides of the spectrum. Film and photography share much in technology, are close to each other on the spectrum, but are on different sides of the spectrum, and few practice both. A William Blake is more an exception than the rule. More often it is the minstrel or composes music and writes poetry, the playwright who writes works of fiction, or the painter who sculpts. It is most common in the word arts because the medium is similar.

The tendency is that arts share common traits in common to how close they are on the spectrum. Sound and rhythm occur in music and poetry. Mutation of images in poetry and animation. Movement of images in animation and dance. Dance and theatre present us with live people before our eyes in a shared space. Theatre and literature tell human stories. Literature, and painting when it chooses, most easily narrate an event. Painting and sculpture present unmoving objects. Sculpture and architecture can be thought of as the same except whether we see it from outside or inside.

> ART ABOUT ART

This interesting case technically falls outside the purpose of this chapter. It occurs when art becomes self-reflective (literally so in the mirror of paintings such as Velasquez's studio {is it a

mirror}). There are films about making a film⁷, works of literature about writing a work of literature. An opera can be about composing. Many great poems are about writing poetry⁶.

Notes

¹ The attempt to combine arts may sometimes backfire. I went to see the film "Thirty-Two Short Films About Glenn Gould" directed by Francois Girard. It was filled with performances by the great Canadian pianist. As good as the film was trying to be, it soon became a distraction from the music, and eventually an annoyance. I experienced most of the film with my eyes closed so that I could simply listen to Gould's unbelievable piano playing.

² A journey is a unique experience to each person taking it, but things will happen on it due to their being together which would not have happened if each were alone.

³ Literature and painting are best at telling a story, but if we allow symbolism, any art can tell a story.

⁴ Song, then sprechstimme, then Dada poems.

⁵ Dance's en-actors are humans and cannot help but have feelings and emotions which they may wish to express in ways not limited to motions.. Feelings to be valued for themselves, which turn around and become motive for motion. The emotions, as they are liberated, thread together into a plot. There becomes a reason one dancer pushes another or moves away from another. Facial expressions are utilized. Props are used. By the time mime is encountered we are already in theatre.

⁶ The difference between seeing a painting and seeing a film of a painting can be minimized by leaving the camera motionless and presenting the whole painting at once. The film then turns more into a photograph of the painting, though that alone leaves a lingering feeling of seeing through someone else's eyes. When directly in front of a painting, we know that we are not in its space. Now, we watch a film screen, which we know is not in our space, within which is the image of a painting, which is not in the film's space.

⁷ see footnote number 6 in chapter 1. [is this still the correct reference]

APPENDIX 2

MORE ABOUT TIME

> SOME BASIC PROPERTIES OF TIME

I believe time to be a phenomenon of consciousness. It may in fact be consciousness itself. It cannot be known whether there is time outside of consciousness. Time implies more than sequence, but that the next event in that sequence has to *wait* a certain "amount" of time before it can occur. This "amount" is time itself, and there is no objective way of defining this "amount". We can call it a minute, but from outside our consciousness there is no way to define whether a minute is something that goes by instantly, quickly, slowly, or perhaps never ends. Nor is there a way of envisioning, once there is time, what it would mean for there to be no time. Once we are within time, time *is* forever. It automatically extends infinitely into the past and into the future. There is

no *moment* that can be defined as being outside of time. We cannot gain an overview of time from within time, because we are chained to the present and our horizon fails before we get to the beginning or ending of time.

We note that what was the present a moment ago is now the past. We know this because we remember it. By virtue of memory, the end is always later in time than the beginning. Each moment of time achieves its present-ness by eclipsing another moment that was present. That moment was not simply set aside, as if we were moving from one point in space to another. It lives in the past, and that past is felt in the present. One moment extrudes into the next.

> CONSCIOUSNESS IS CONTINUOUS THROUGH TIME

That time is felt to be continuous is probably an artifact of the nature of consciousness. Nerves transmit sensory data discontinuously, in spurts. The conscious awareness of perception that results, though, is continuous. Is it continuous because it is consciousness that is continuous. It may be as meaningful to say that it is time that is continuous.

What would consciousness be like if it were quantized and discontinuous just as are the nerve signals arriving at the brain? There is a paradox. Even if we could know that we perceiving discontinuously, we could only know this because we are *aware* on a basis more continuous. Against this greater continuity we would note the discontinuity. Perceptions would flash on and off in consciousness. If there is any discontinuity in consciousness, we do not notice it any more than we sense the absence of consciousness during sleep.

> PARADOXES OF TIME

It is a tenet of the big bang theory, that time was created at the moment of the big bang. This raises philosophical issues. Time cannot be created, for that already implies the time in which it was created. Time cannot be created in time. If time exists, it exists infinitely back into the past and infinitely forwards into the future. One cannot look outside of it by looking through it into the past or future. Within time, the view is endless.

Every moment of time is a 'now'. We could say that relative to it every other moment of time is a 'then'. However, in that we ever know of another moment of time, it was by its being a "now". Every point in space is not a here, for first we would have to move to it and place the center of our awareness there. Every moment of time, by the nature of time, must (at some point in time) be a now. Now always remains now, though chronologically there are many different nows. Time is often depicted as a one dimensional line, and that the coordinates of different points along it are the different 'times' or dates in its history. In space, the fact that points have different coordinates means that they do not *in any way* coincide. In time, however, now is now, both to the person alive in the 15th century and to the person alive in the 21st century. There is nothing less fresh, less vivid, to the 15th century's awareness of now, than to ours. If it is a point on a line, the present is a moving one, and to itself, its coordinate always seems zero.

Time and consciousness stand as the two basic facts on the mind's experience. When we try to relate one to the other we are caught in a trap. It seems meaningful to say: consciousness is the constant, unchanging base against which we notice the passing of time. This pictures time as something that flows by consciousness and consciousness as something constant. As time flows by it, consciousness bestows on it, over and over, the status of present-ness. Yet it seems just as meaningful to say that consciousness moves, and flows through time. But that would make time the constant, like the medium or fluid in which this movement takes place, but which does not flow itself. Then it would be the movement of consciousness which causes the present to become the past. I find it impossible to combine those two statements logically. At its base, time and consciousness are relative. They may in fact be the same. Otherwise, looking at the two statements, we are left asking what is it that moves through what?

The same dilemma exists for describing the experience of the arts in time. It is as meaningful (or meaningless) to speak of, for example, music as being in motion, which motion is detected by our fixed consciousness, as it is to speak of consciousness being in motion through time and thereby lending to music its sense of motion.

More fundamentally, what does it mean for time to "pass". Time is not something that can move, it is not material. It is not even immaterial. It is taken for granted without our knowing what it is. Whatever time is, it is what prevents the universe from transpiring infinitely fast, which is the same as saying it does not transpire at all. The previous sentence is at best suggestive and at worst tautological. We can say that time is delay, but delay can only be defined using time.

> THE PAST

We have no consciousness of the past from within the past, only what is past as remembered in the present. There is no place other than the present from which to locate the past, and as the present is single and unified, so the past that the present contains must exhibit this essential unity. There was a time when I knew "A" but did not yet know "B". I know this because I remember a time when I did not know B, and now I do know both A and B. Without the past, the present would be without mooring. The present creates the past so that the past can serve to enrich the present beyond what the present would be without that past. Any date we have experienced in our past is accessible to the present as memory. In this regard the present floats freely among the past.

> THE FUTURE

The future, as future, has no existence. What we normally take to be the future is the reflected image of the past through the mirror of the present. On Monday we can say: here I am at the present in time; if I now put myself in my mind back to yesterday, Sunday, then, relative to then, today (Monday) was the future, and *indeed* the future *did* eventuate so the future must exist.

Time freezes possibilities into fact¹. That diminution is causality: essentially that two things cannot both be present in the same place at the same time. Some believe that time has a cyclic nature, that history repeats in great cycles. If so, perhaps this is so that other possibilities may also arise. A

different negotiation between space and time might result in more or less of a contraction, to no fact at all, or to many facts. This is what we have in art.

> LOGIC AND TIME

A geometric theorem is a fact. It exists right now, but it also has preexisted the time when we first learned about it. Indeed there is a date on the calendar when we learned to derive the theorem. However, as soon as we know its truth, that truth extends indefinitely backwards in time and indefinitely forwards. The 'discovery' of the derived theorem, by us or anyone else, including the first person in history to actually have derived it, did not confer existence on it, but simply added knowledge to that person. It is like saying that America did not exist prior to Columbus.

Logic does not operate in real time. It predicts what *will* become apparent to us through our calculations *in* real time. The premise and the conclusion are always simultaneous. It is only the procedure of working from one to the other that is in real time. In real time the conclusion does not exist already when we first think the premise. We have to "get" from one to other in our mind. To this, logical time behaves as if it were really non-time. The same is true same regarding any question and answer that involves rational deduction. In real time the question did not exist until it was thought of, and the answer not arrived at until subsequently to that. Logic would consider the question as always existing, prior to the accident of a particular individual having propounded it.

Many types of ordering are possible of which logic represents just one. Things can also be ordered in terms of their position in space (and that according to many criteria), their sequence in time, their importance, the order in which we can deduce them from basic principles, or the order in which we learn about them.

Notes

¹ A good description of how infinite possibility narrows down to a single, narrow channel is found in Emerson's essay on Friendship. "See, in any house where virtue and self-respect abide, the palpitation which the approach of a stranger causes. A commended stranger is expected and announced, and an uneasiness betwixt pleasure and pain invades all the hearts of a household. His arrival almost brings fear to the good hearts that would welcome him. The house is dusted, all things fly into their places, the old coat is exchanged for the new, and they must get up a dinner if they can. Of a commended stranger, only the good report is told by others, only the good and new is heard by us. He stands to us for humanity. he is what we wish. Having imagined and invested him, we ask how we should stand related in conversation and action with such a man, and are uneasy with fear. The same idea exalts conversation with him. We talk better than we are wont. We have the nimblest fancy, a richer memory; and our dumb devil has taken leave for the time. For long hours we can continue a series of sincere, graceful, rich communications, drawn from the oldest, secretest experience, so that they who sit by, of our own kinsfolk and acquaintance, shall feel a lively surprise at our unusual powers. But as soon as the stranger begins to intrude his partialities, his definitions, his defects, into the conversation, it is all over. He has heard the first, the last and best he will ever hear from us."

APPENDIX 3

MORE ABOUT THE SENSES

> ADDITIONAL INFORMATION ABOUT SIGHT AND SOUND

To the discussion of sight versus sound in chapter 2, we append these remarks.

With sight we perceive an absence of light as simply another color, black. In sound we do not perceive the absence of sound as itself a sound.

We can return to the same place in space to determine whether the same sight is still there at the different time. We cannot return to the same time to find out if the same sound is still 'there'. Time would have to be created anew (which is what a performance does).

To perceive an object externally is an act of limitation, in which a part is substituted for the whole of the environment. We see in one direction, not in all directions. We see from *a* side, not from all sides. We see from *a* distance, not from any distance. The eye causes the singleness of reality to devolve into perspective. Truth hides in a house of mirrors, each claiming to be the authentic image. To see truly, we must be blind. Hearing is blind.

It is by providing us with information about position, shape and motion, and not by virtue of providing us with information as to the existence of light, that sight gives us knowledge of space.

Space is continuous throughout the visual field, no part of it is unperceived. What lies just outside our visual field, just off to its left or right, is true *nothingness*. It does not look black or any other color, it is simply absent, at least until we create it by turning in that direction. As green is a different color than orange, so black is a different color than orange. There is nothing inherent in the quality of the color black, other perhaps than its 'darkness', that makes it a better candidate for absence of color emission than green or orange.

> TOUCH

When we are gathering information about something at a distance, it is immaterial from what place on our body we receive the information. If, however, the information is about something very close, we can no longer afford to gather that information at just one place on the body. Touch is a sense whose organs of reception are spread out all over the surface of the body. It is the body feeling all at once. Thus the magnitude of a touch sensation varies in two ways, by the degree of pressure on a given location and the extent geographically of the portion of the body that is stimulated. There is also a difference in quality between the feeling of being touched on the neck and on the arm.

When we are touched by someone else, the feeling is as much an awareness of our own body as it is of what is touching us. Touch exists at the point where self becomes other, where the inwardness of time is about to become the outwardness of space.

If sight alone gave us a sense of reality, there would be no difference between watching a movie and actually being in the same space as what we see. If we try to grasp a glass of water in the film our hands close upon a void. Our sense of the substantiality of matter is dependent on touch working in concert with sight. Characteristics of matter, such as substantiality, solidity, smoothness, roughness, that we think we learn through sight, are learned previously by touch, though now we 'feel' as if we *see* them in an object. Sight and touch work closely with each other. It is perhaps hardest with this pair of senses to remember that the existence of one sense in no way implies the existence of another. The reality of matter also owes something to the kinesthetic sensations: it has heft when we take it and try to lift.

As an object gets closer it looms larger and larger. At the limiting point, when its distance from us becomes zero and its extent indefinite, sight turns into touch. Touch is blind. Sight is touch at a distance.

Touch defines where space stops at the boundary of our skin; sight teaches us where space stops at the boundary of the surface of an object. Sight observes. Touch possesses. Somewhere within the aesthetic reaction to something visual is the yearning to be one with the object again. There is an analogy between opacity in sight and impenetrability in touch. What opacity is to the eye, impenetrability is somewhat to touch. Touch allows us to know as much or more about the inside of ourselves than about the inside the object we hold.

Sight can show simultaneously relations between objects. Touch (in one part of the body) can only know relations between objects sequentially. It is a more temporal sense than sight. Without sight, touch teaches only a little about space. If we pull a piece of soft clay apart with two hands, and keep our eyes closed, we only know that the piece finally separates into two the resistance suddenly lessens and our hands suddenly feel pulled downwards. If we move our thumb towards our fifth finger with our eyes closed, and do it slow enough, we will lose any sense of where the two fingers are in relationship. Only when we feel them touch each other do we reestablish their connection in space. Even a moment before they touch, we will have no idea that they are about to touch.

When we hold something in our hand we do not do so fixedly, but constantly are making minute muscular adjustments. We are exploring its form as a process in time. We are performing the acts of a sculptor, molding ourselves around the form to determine the form. Touch is a dynamic process in time. If the shape of the object is very complex, we have little way of knowing if we have felt all of it.

Could an art be based on touch alone? There could be rhythms to its sensations that move along different paths along the body at different rates. In a massage, *we* are the work of art. Perhaps this self-identity precludes it being an art form.

> SMELL

Smell is a chemical sense. It responds to only a finite group of chemical stimuli. As with timbre in hearing, there is no definable range of values to these sensations. In hearing, if we hear a sound having one pitch and then a sound having another pitch, the notion of pitch itself is present within

what we hear in both cases. In odor there is no such common element between types of smells or types of tastes. An art based on smell would have to contend with the technical difficulty of controlling their succession in time. Light and sound transmit information through waves, the former at 286,000 miles/second, the latter at 761 miles/hour through air at sea level. Odor is transmitted by diffusion in gases. Compared to the previous two cases, this is a relatively slow process. There will be no clearly defined boundary of when one smell ends another begins

> KINESTHETIC SENSATIONS

If sight gives us information about the outside, and touch about the boundary with our own inside, the kinesthetic sensations provide information about our inside. Because it is internal, it is perceived purely qualitatively through time, though like other sensations can admit of feelings of different intensity. Kinesthetic sensations play a major role in arts dealing with motion, including our own motion when in a work of architecture.

> A NEW SENSE

If there was no sense of sight, one might conjecture that it would be useful to be informed of the presence of electromagnetic radiation in a certain region of the spectrum. But what form should this awareness take? Is there some reason we should see it, rather than hear it, sense it, etc.? Could we 'hear' differences in the frequency of the light rays, by noting their different 'itches'. We could also try to imagine an entirely different way for us to perceive data from electromagnetic radiation that is unlike any sense we do have. Though we accept implicitly that the senses we own work together as a whole, these senses are no way rigorously 'complete' as a set. Why not other senses, to produce another, perhaps 'more' complete whole of a reality than the one we possess? There is no criterion we could name that would account for why we have just the senses that we do have and none others. Would information from a new sense contradict information from a sense we do have (as when our hand touches the mirror's glass when trying to touch the image in the mirror). There is nothing in either hearing and smell that implies that there should also be sight. There is nothing about sight and hearing that implies that there should also be touch. There is also no quantitative or identifiable measure of difference between one sense and another. If there was to be another sense, we would have to imagine something unknown, that is as different from sight as hearing is, or as different from hearing or sight is as odor. We cannot do this. If we were to meet an entity that possessed a sense that we do not have, it is quite possible we would not recognize that it possessed it.
