CREATING NARRATIVE SPACE

I am a patron of museums and an avid lover of books. I am a creator of narrative and a designer of space. Through my work, one among many at Walt Disney Imagineering, I meet daily with challenges involving the conversion of story content, (narrative), into built physical environments. The work has no formal name, but it involves narrative and place, and therefore I refer to it as narrative placemaking. I’m not a scholar. I often end my day with dirt on my hands and paint on my face. My opinions are the result of practical work in this field over the course of three decades and more. My work has led me to a deep curiosity about the function of narrative organization and spatial design. Today I am here to talk about some of the elements that I believe are the building blocks of narrative place-making and to discuss some technical means of enhancing interaction with space. I believe that the principles I will discuss are not confined to the entertainment industry, and so I will use images from across the history of design to illustrate them, as well as some images from my related work. My hope is that this brief lecture, and yes, it is a bit of a lecture, will clarify some ideas that may be useful and at the very least will generate some debate.

Books, exhibitry, interpretation and experience

I want to stress that my area of practice is specific; themed attractions and resorts. I see the design of public spaces as a form of storytelling, like text. I am not an architect, but I have spent over a quarter century directing the efforts of architects, engineers, landscape designers, interior designers, lighting designers and a variety of other professionals in the conceptualization, design and construction of many hundreds of acres of product. Quantity is not necessarily quality and I will leave the question of quality for later debate, but I will speak to effect. Themed environments have a powerful attractive effect, and the general public, precisely the public that must be wooed to patronize museums and other pedagogical institutions, really likes these places, and finds them rewarding and communicative places to be in. Our industry offers narratives, mostly fantasies, played out in real space, whereas the narratives embodied in museums are based in fact. The patronage that theme parks enjoy should be equally given to places whose stories are true and founded in reality. Perhaps, some of my comments will help in this regard.

When the book is presented as an object on exhibit, you have the additional interposition of the curator, another presence, another action, that becomes part of the narrative of the space. That’s a lot of agendas. But it is my belief that this new creature, complex with possibilities, can be represented in place-making without being redundant of the architecture represented in the book. Metaphorically, the space becomes a new narration, a haptic book of sensible effects.
through which the mind wanders. But this mind is in a body and that body is in space. Narrative space.

I could imagine that such a space could portray a number of ideas beyond the imagery in the book itself... such as the author’s interpretations of the subject, the subject references and their implications, and the inner meanings meant to be found in the architecture. The space in which the book is encountered can then become more than a frame around a picture of a thing that was alive. It becomes a personality, with a story to tell that enshrines the object within itself.

So the space doesn’t have to be a reiteration of the architectural objects represented in the book, and none of the spatial design elements need to replicate the actual designs in the book. Rather, they would embody a combination of the meaning of the text and imagery. If no additional context is added through the display, it begs the question of why the book is presented as object at all, rather than scanned and offered as a universally accessible text to be downloaded and read. Perfectly good digital models of any architecture in the history of the world can be made accessible on anyone’s computer, so why leave the house and go visit a space to look at flat pictures of dimensional things? The answer has to be the place itself, in which the things are seen.

The presentation space, the museum or gallery, then, must be imagined as the primary text, for as a built place it is the only text that can actually be physically encountered. The book, after all, is under glass. My background in narrative design is biased towards theatricality of expression. Therefore, I tend to imagine that the interpretation of such content, or indeed almost any content, could be externalized symbolically into the narrative details of the space, made into symbolic crown moldings, window trims, wall patterns, sensations, illusionistic projections, imaginary personalities that appear in space, etcetera. I mean to suggest that before actually encountering the material being presented in a case or on a wall, the visitor should already be engaged in a story, a story in which they are an actor. The visitors are playing out an experience that prepares them for the arrival on the scene of the primary actor, the star, which is the object on display.

This kind of set development in a presentation space may seem to compete with the objects on display, but the objects, books, cannot speak without being read, and the typical visitor is not in space to read, but to experience. I’m not suggesting actual historical crown-moldings and such, although the job of interpretation may call for exactly this...but my interest is the textural and ornamental equivalents of such elements as they might used to reveal content.

This use of ornamental systems may sound like an abandonment of modern design principles, and in a certain way it is. It is an argument against reduction and sparseness in favor of rich grammars, potent with the capacity to attach story. This is the essence of successful themed venues, and I am here as a representative of that industry and the design ideas that pertain to it, however alien that may be. I am speaking here of broad issues of public attractiveness, magnetism, and communication. Attractive destination environments, are usually inherently narrative environments, and tend to be textural and ornamental, as a quick look into the window of any tour booking office will indicate. These are the places people want to go. I don’t believe that such places are attractive on the basis of nostalgia, because the consuming public has very little knowledge or experience upon which to build nostalgia for places and environments they have never seen, possess no reference for, and have no inherent cultural connection to. I believe such places are magnetic for their purely formal qualities, which allow them to become armatures
for narrative construction. The richness of narrative space shows in the imaginative responses of the persons who use the space. Before considering the presentation of any object in a space, the designer/curator must define the intended meaning of that object as experienced in the story of a person moving through the space. Since we are discussing narrative placemaking, that job of exposition must be done by the place itself.

I am not referring to a curated “reading” of space that is aided by access to essays, guides, or previous academic knowledge, but rather to the immediate effect upon a naïve and uninformed eye. Narrative space must explain itself, not be explained by text, so a grammar of ornament is necessary to let the space speak. The visitor should find elements of the view immediately suggestive of meaning, however peculiar or unfamiliar that meaning may be. In this departure from strict functionality, there is the implication of intention to speak, which the viewer perceives as personality. Sir John Soanes house and museum come to mind. Gaudi comes to mind. Sullivan’s completely personal ornamental motifs. Calatrava’s Milwaukee Art Museum. Gehry’s most literal fish buildings. Leon Krier’s New Classicism. Places with personality offer relationships to the visitor, who, in narrative space, is an actor looking for another personality with whom to play. Since there is play and interplay between the person and the space, there is a chance for dialog, not diatribe.

Since we are talking about the desire to engage the public in two-dimensional media about architecture, this begs for the dimensionalization of the book into the museum space. Not the architecture represented within, but the text of the book itself. A book is not a building; but a book is imaginary motion through imaginary narrative space. This is a metaphor that can be made material.

The presence and personality of the author is palpable in a book, and expresses itself in intangible ways that may not be explicit in the architecture represented in the book. However, it’s possible to portray the author’s personality in the space surrounding the book. Consider for example, walking through the mind of Adolf Loos’s influential book, “Ornament and Crime”, as a space in which to view images of his architecture and the surrounding context of Viennese design at the turn of the last century. The exhibition space will have been converted into a metaphor for the points of view and opinions, cultural predispositions and emotional states that underlie the book, now converted into the spatial environment which the viewer journeys through in order to see the book, and the examples of Loos’s architectural designs, which are extensions of that theory. Consider the same journey with those same walls, projected over now with images of young architects from around the world today, replete with their inevitable tattoos, their jewelry, and their cosmetics. That is a different journey through “Ornament and Crime”, although the book on display remains the same. By encoding the space with meaning, the book and its images become a kind of focal object at the end of a pilgrimage, like a reliquary. Enshrining the book as a kind of reliquary has conceptual and visual parallels to sacred architecture, which may be discomfiting. But sacred architecture worldwide is especially narrative in its organization. (A Nepalese Buddha is one thing in a museum case and another thing enshrined in a temple in the Himalayas, and a third in an essay about the difference between the two.)

**Narrative as an involuntary function**

We can’t help but form stories from the myriad of inputs we receive constantly.
These stories become the thought structure by which we live, so that we actually reduce the amount of new information we need to take in as we build stories to encode and replace experience. We cannot relearn and rebuild the structure of truth each day. We rely on a series of compounded scripts that replace the existential experience of phenomenon, so that we can concentrate our attention on anomalous data, which may contain threats or opportunities. That’s life. This function has ancient roots with basic survival value and is irrevocably part of how we think and react.

Patternicity is a neologism for the tendency to see connections and causality in objects and circumstances. This habit is so powerful as a survival tool that it actually has more survival value than rational analysis. The ancient needs of our distant ancestors were to locate danger and opportunity out of the random background information of the world, and then to retain that information for future use. This urgent need leads to a habit of seeing and believing patterns, the rudiments of story.

So, patterns which seem to have a narrative cause, are particularly attractive to people. By acting as an author of the place, not just a designer of functional processes, one can imbue spaces with the quality of narrative, full of implicit character, action, and plot. The best of these spaces transcend the intentions of their own creators and are adopted by the public and re-invested with new story. Museums are repositories of materials whose stories have been enacted elsewhere, and yet they can be dynamically activated by such renewals. They are prime candidates for being made into narrative place.

**Properties of narrative space**

To craft narrative places, one has to think a bit more like a filmmaker, or playwright, than a traditional architectural designer. Just as the twentieth century was the century of the “machine for living”, the twentieth century was also the century of film. And film has its developmental origins not in theater, but in technical attempts to create the illusion of space, extensions of the panorama and son et lumiere shows of the nineteenth century. Those picturesque aesthetic values were transferred from built environments to filmic environments and then transmitted around the world in the same period of time as the emergence of modern architectural theory. However, film, being a mass medium, has been vastly more successful at expounding its message. Therefore, appeals to the public imagination must respect the filmic nature of narrative space. Narrative depends on visual cueing, so the usual path of development from program, to plans and masses, to various schedules of design, is disrupted somewhat by the intervention of narrative intent and the requirement that certain detailed visual statements be defined very early. The key rule of visual narrative is to “show” not to “tell”. In order for the designer to know that the space will “show” not “tell”, decisions about surface appearance must be committed to first, before they are compromised by plan or massing. These cannot be arbitrary or they lose all narrative impact. One of the reasons that so many recent attempts at narrative place-making fail and fall into kitsch, is that the visual narrative system is *in fact* superimposed, and rather late, upon a predetermined functional plan and elevation, rather being than the a priori reason for the plan and elevation.

So there are certain aspects of narrative placemaking to keep in mind as one creates. I know that it may be frustrating to go over all this theory without addressing pragmatic issues like how to
make a more interactive display case, but really, such window dressing is superficial compared to
the narrative structure of the spatial experience itself.

**Thematic unity**

This is crucial. In order to organize narrative space, you must begin with narrative premise, with
theme. The term, “themed architecture” has a bad name because it is so strongly attached to
poorly executed kitsch. And so it is. The critique that thematic architecture is appliquéd is often
valid because most so-called thematic architecture is appliquéd. I’m not talking about that. I am
talking about built places whose organizational theory from the very outset of conceptual action
is meant to be an expression of literary, pedagogical, narrative, poetic ideas first, and then,
secondarily, meant to house functions. Theme is the core of story, the spine. The choice of theme
then becomes a philosophical stance that defines the point of view by which all subsequent
decisions will be made. Those include the most fundamental organizational decisions about
layout of space and form. The theme is the reason why there is a story to tell at all. Thematic
unity differentiates structured narrative from random impressions.

For example, when designing the environments for Disney’s Animal Kingdom, we progressed
through a series of explorations to determine how thematic unity would govern design. This
exploration proceeds as a series of questions. We started with the premise that in order to
present live animals, we needed to make the intrinsic value of nature a fundamental value. If our
theme were to be the intrinsic value of nature, would our place be constituted primarily of
architecture or of landscape? Landscape was the unanimous answer. But landscape can be many
things. There were clearly further questions to be asked. If our medium was landscape and our
theme was the intrinsic value of nature, would the landscape be manicured and formal or
unkempt and asymmetrical? Again the answer seems obvious. Asymmetrical. This process led us
eventually to our value proposal, which was that the entire place would express the intrinsic value
of nature through the dominance of organic forms and apparent lack of human agency. The
governing power of theme can be followed down to very fine grained details. If the theme is the
intrinsic value of nature, would a doorknob be stainless steel or bronze? If there were a texture
on the doorknob in a place about the intrinsic value of nature, would the texture be regular or
irregular? And so on. It is precisely the rhythmic and poetic concordance of all these details that
signals to the visitor that they are in a narrative space. Places like Gaudi’s Sagrada Familia come
to mind. Hundertwasser’s most cohesive installations in Vienna. Angkor Wat.

**Virtuality not actuality**

Understand that narrative space is entirely subjective. Narrative space is perceivable space, not
programmed space. Narrative space is the space that a viewer believes is there, not the space
that might actually exist. Only one kind of narrative space exists—the subjective space of each
individual perceiver. Plan views and overhead systems of organization based on geometry of any
kind are only as relevant as they appear to the ground level viewer. This is obvious when
considering a classic Bibiena design for a proscenium stage, where the illusion of depth is an
established convention. But it is equally true in any narrative environment. Space consists of
what is seen, felt, and heard by the individual and whatever additional imaginary space is implied
by what they experience. Voices coming from beyond a wall imply place and action on the other
side of the wall, even though they may be recordings played from a speaker in the wall.
The designer conceives of and organizes the space as a projection of the subjective views of imagined individuals in the audience. (Not “The Audience” as an abstract.) Any space that can be inferred from the perceivers view therefore counts as narrative space. Ultimately, narrative space doesn’t need to exist physically at all, if the viewer can be convinced of its apparent existence. I could imagine the journey through such a space that would lead to the objects on display, books, prints, plans, elevations, and picturing the apparent setting of those objects when they are encountered. These views include the psychological disposition of the viewers. Where have they come from? What do they know? What is their emotional state upon entry? How ill they orient themselves immediately upon entry in order to be able to regard narrative imagery? The space must address these questions in order to know how to address the viewers. The designer must imagine these views walking through the environment, building a self-constructed story of the place. How much space do I, the participant, believe is present? Is it rationally bounded space or boundless and luminal dream-space? Do the walls dissolve into high definition projected extensions of the place, or are they solid declarations of the reality of the space? Do I hear the sounds that would have activated the architectural environments portrayed, or the voices of the architects? What is the level of dynamic activity of the space? What is my narrative relationship as an actor to the other people present, or to the setting? What is the emotional state of the space?

Since narrative space is imagined as a projection of the viewer’s perception, it develops as a series of proposed points of view, and therefore, does not often lay itself out as a grid, but rather as a linked series of organic capsules. Each capsules represents the world that is perceived from that particular view. The space is the externalization of the process of discovery.

**Intent to communicate**

Narrative objects and spaces exist primarily to convey meaningful communication and signification, that is emotion and ideas, and secondarily, to be supported by the programmed uses that subsidize their existence. The place is an idea first, and an actual physical place second. If the place is conceived of from the first as an expression of a theme, then it has priorities that overshadow simple functional mechanics. It must speak. Because of this, it is common for narrative places to possess design elements, shapes, even entire spaces, that might seem excessive or irrelevant according to a purely functional assessment of design. These elements usually hold the grammatical systems by which meaning and emotion are conveyed. It is partially through this very quality of extraneousness that they convey to the reader that they exist to be looked at.

It’s important to recognize that the ultimate power of ascribing meaning always falls to the user, not to the designer. Therefore a rich grammar of communicative design is more important than any specific intended content. A grammar-rich environment will be re-booted several times across its lifetime, with new meanings laid over the same visual language. Places whose statement is too tightly restricted around a minimal set of images run the risk of losing all communicative capacity.

**Permeation**

The narrative place is permeated with a set of ideas and emotions that color all forms of sensory experience. There is authorial intent in this permeation, ideas and emotions that the author
wants to communicate. But, in subjective narrative, there can be no sense that is not the sense made by the viewer of the place.

We can't predict exactly the sequence in which the space will be looked at. Edges, tops, bottoms and openings will always attract they eye, but in what order? Therefore it’s usually more effective to imbue the entire space with a poetic quality that cues the viewer as to the overall meaning. This editorial and poetic resonance overrides the normal functional rationales for placement, orientation, proportion and décor, driving the design into territory that is unexpected, and therefore, calls attention to itself as statement. The underlying narrative and thematic idea controls the final placement, sequence and appearance of the objects, to create a net sense of cohesion. The quality of permeation is one of the primary signifiers of a narrative place, one that seems to be “filled with something”. Consider for example, the theme proposed by the Abbe Suger, in the twelfth century, of light as an expression of spirit, which, by necessity then, must infuse the entire spiritual environment. The urge to infuse symbolically meaningful light into basilicas designed originally for simple congregation, required completely reassessing the structural needs of a perfectly serviceable architecture and replacing it with a revolutionary new model. Thus, a literary metaphor propelled Europe into a new architectural era in which the programmed use of space, (worship in the nave of a church), remained unaltered from the Romanesque, even from Late Antiquity, however the meaning of the space, (spirit as light), was entirely transformed. So too, the infusion of distinct intended meaning into museum display spaces can call for transformations, either through installation of virtual narrative space, projections for example, or the physical sculpting of space.

Haptic effect and sensuality

While adhering to the intellectual rules of theme, permeation, and analogy, the narrative place should play to the senses. It is the essence of narrative placemaking that the viewer is inside of the narrative statement, not looking at it from outside. Since the entire space is the statement, and narrative unity requires that there are no contradictions within the story, that spatial statement must include everything in the space. This includes the viewer and the viewer’s senses. Kinesthetic properties of space are important in fostering cohesion and permeability. Sound reflectivity, heat absorption and reflection, sun angles and other lighting conditions, textures of hardscape and architecture, changes in height that offer prospect and vantage...all of these impinge upon perception and therefore color the analogies proposed by the place. The role of the viewer in narrative space is subjective and engaged, not objective and disassociated. Thus the viewers themselves, their bodies and their actions must be absorbed into and given meaning by the narrative of the space in which they move. They become actors, not audience.

Fractal declension of form and meaning

Each subsequent progression of a story recapitulates the foundational theme upon which the story is based. This principle can be misapplied and become rigid, but in general, the process of creation is so fraught with challenge and threats of disorder, that a clear governing formula is immensely valuable. The absolute mathematical progression of thematic fractal in story is always challenged by the limitations of the real world...limits of means, limits of opposition, limits of ability, etc. These disrupt the pattern, which make real stories interesting because, while we recognize a pattern, we know that the pattern itself is always in jeopardy from the impacts of the
real world. This forces us to continually redirect attention to the pattern to make sure it has not shifted. This capability to redirect attention is precisely the difference between the idealized mathematical proportions which might give a snail shell it’s spiral, and the real and somewhat irregular organism, the snail shell itself, which has had to endure attacks upon it’s surface, scarcity of nutrients for growth, genetic variations in it’s cellular code, etc. A real snail shell is more beautiful for having encountered and adapted to those interruptions. The variation from the mathematical code gives the shell specific interest. But without the code that gives it shape in the first place, it would be a chaotic jumble of calcium.

In narrative space, the space and the objects defining the space break down into smaller and smaller units of expression, while adhering to the formulas established at the highest order of the design statement. There are two dimensions to the fractal nature of narrative place.

A. First, the conceptual dimension, which relates to the ideas of permeation and cohesion. In this dimension, the ideas that underlie the place and its parts are all nested subsets of a core concept or theme. The theme repeats itself in increasingly smaller variations within the place. Imagine a Russian nesting doll of ideas, each of which sits neatly inside of a larger but similar idea. Dickens and Flaubert both provide literary models of this kind of progressive encapsulation, in which minute descriptions of details recapitulate larger themes of character or plot progression.

B. The second dimension of declension is physical. The actual physical shapes and surfaces of narrative place tend to be rich in data and variety, while still expressing a continual restatement of order that relates to the whole. The fractal nature of the place creates a wealth of forms that correlate to each other, while each form still possesses enough variety to be perceived of as an individual object. But this revisitation of imagery has to be inflected, full of variety, or it loses it’s value. Mechanical repetition is generally non-narrative because the pattern is too predictable to sustain attention. It doesn’t offer surprises that will command attention and so, in the interests of efficiency of action, the brain ignores it and moves on. Attention is a response, like a biological response. Our brain is predisposed to not pay attention to what it thinks it knows. There is no survival value in redundant analysis. In addition, the uninflected repetition of identical shapes makes it difficult for the viewer to construct narratives beyond those intended by the author of the space. This can be effective as statement, but not engaging as narrative, which requires participation. Narrative spaces are conversations, not posters.

I also believe that there is a kind of visual comfort in places whose net amount of detail approximates the level of detail in a natural environment. We cannot forget that we are not very far away at all, as biological creatures, from the environments in which our ancestors lived, and which governed their ability to survive. Those environments were natural, and thus full of complex detail. Navigation, of course, depends on registering where you are and where you are not, by comparison of one place to another. Clearly differentiated detail helps those comparisons, and thus aids in orientation and navigation. We don’t like being lost. Uninflected mechanical repetition does not offer sufficient navigational data. The more navigable a space is, the less anxiety it creates. Relief from anxiety alone can drive the urge for revisitation and thus drive the reinvestment of space with new meanings. And theatrical expression cannot work in circumstances where the mind is distracted by more primal concerns of safety and comfort.
Intuitive navigation

The combination of cohesion and variability, together with the assurance of order that comes with fractal organization, creates a system where the eye can navigate organically, as it does in a natural environment. Remember that narrative space has been designed not from an objective plan view, but from a series of imagined subjective views experienced by a naïve eye. Therefore the layout of the place itself is based upon the very act of seeing and understanding it to begin with.

Objects and actions relate directly to the act of being seen and understood, and therefore constitute unique visual and ‘textual’ statements one after another. The more that a person can find their way around an environment without resorting to reading and following text, the easier it is for that person to become emotionally engaged in the space. Without realizing, cognitively, that he or she has moved from the Assyrian gallery to the Rococo gallery, the visitor can say, “Oh, I must be in another place, because these doors are all curly, and those other doors were kind of squarish with dots”. Environments that do this well usually end up with a fair amount of complexity in surface development. This property accrues well to older designs and environments, because of the natural irregularity and complexity of traditional architecture, but is formal property of design, not a function of nostalgia. The spaces are simply easy to be in. Edges, tops and bottoms, apertures like doors and windows, are surrounded by detail that makes them easy to locate and easy to distinguish from each other. The eye normally navigates by referring to exactly these environmental elements, along with surface texture, so that it becomes efficient and effective for the designer to accumulate detail at these points in space. I think it’s not coincidence that these are the places where content-driven ornament accumulates in pre-modern design from Baroque to Buddhist.

Without sufficient fractal declensions this text-like quality is impossible. Repetitions of form must contain enough variation for each shape to be distinguished from another. The largest scales of statement provide iconic focal points by which to mark location, declare the overall theme, and govern the meaning of large spaces. The smallest levels of form break up surface and allow light to be reflected clearly, so that surface can be found and individual shapes discerned from each other. The combination of direct appeal to the viewer, the literal meaning in each object, and the fractal relationships between objects give sufficient structure to the place to allow navigation without resort to graphics and other cognitive way-finding means.

“Criminal” levels of ornament

Ornament is much disparaged by modern design theory, held to be irrelevant at best, and morally corrupt at worst. Adolf Loos still resonates, with his condemnation of all that was not pure, unadorned, and implicitly superior. The more contemporary critique of ornament as kitsch is in part due to the gross misuse of ornament as appliqué. It’s badly done and looks ugly. This is due in part to the total collapse of training in the proper use of the ornamental principle. (Except in the fields related to film and filmic design, where a direct oral tradition has transmitted these principles across several generations, now.) However uncommon, to understand narrative placemaking, an understanding of ornament is crucial. The word ‘ornament’ here is used in the classical sense, meaning integral extensions of the physical design components that make up the ordered structure of the place, not merely decorative appliqués. For example, the mediating structure of the acanthus leaf cannot be removed without ruining the aesthetic and functional
form of a Corinthian capital, but it still represents acanthus leaves. This representational quality becomes easier to see when one looks at more recent expressions of the order, in which more contemporary objects have replaced acanthus leaves.

The ornamental systems need to be representational enough to be recognized as symbolic language. As with fractal declension, these systems work on a couple of levels. First, ornament offers a platform for the designer/speaker to present some of the most literal and directive cues to the audience as to how to interpret the space. This function serves the original author of the space as a kind of statement. Second, the ornamental details contribute fractal components to the visual grammar. This implies to the viewer a visual language, which then allows the viewer to interpret that language, or reject it and to reassign meaning to the environment by choosing to focus on new combinations of imagery.

Imagistic ornament yields value to the viewer, who can ignore the original authors intent and use the ornamental symbols to re-create and re-narrativize an outmoded space. The vitality of narrative environments is not in their capacity to continue the statement intended by the original designer, but in their capacity to continually receive new assignments of meaning from new communities of users. It is visually rich, grammatically structured environments, those that offer ample opportunities to remount meaning, which attract communities to re-inhabit them over time.

**Multiplicity of meaning**

It tends to be a property of narrative space that it means more than one thing. Such places stimulate multiple levels of appreciation, ranging from very simplistic satisfaction of basic needs and ideas, all the way to deep and esoteric meanings that require knowledge and attention to even detect. Great cathedrals in Europe possess just such a range of narrative expression, from the atavistic awe inspired by their size and height, to their obvious historical associations with medieval and renaissance culture, to the densely indecipherable symbolic language of the carved and painted ornament, which may be intelligible only to an expert in Medieval Christian cosmology, to their secular/social function nowadays as tourist destinations. By embracing this layered approach to meaning, the narrative place can remain open to all potential inhabitants. Narrative environments can always be directed to exclusive and highly informed audiences, but they are at their richest when they are at their broadest. Narrative placemaking intends to communicate, and therefore seeks the most varied and inclusive languages available to address an audience. It trends away from the learned refinements of high academic and cultural style, which generally require the study and appreciation of pedigrees and theories distributed in media aimed at an educated and elite consumer. It is precisely the absence of a need for trained perception and learned canons of appreciation that distinguishes narrative placemaking. It is populist, legible, multilingual, and very probably innately biological and neurological.

**Enabling narrative technologies**

We are surrounded by tremendous amounts of stimulus, and therefore, it takes more interruption to announce the beginning of a narrative event. Technology can be used to create the equivalent of the theatrical limelight of olden days. However, interactive devices and theatrical effects alone will not activate a narrative response. People come to places to have the experience of places,
not just in places. If an environment possesses the qualities of narrative space, pattern play, symbolic detail, tactile qualities of texture, metaphorical distortions, ceremonial placement, intuitive navigation, then the use of interactive devices becomes highly charged with narrative intent. The future audience will want more channels of contact with the subject, precisely because they are constructing narrative out of the available material. The burden of story cannot rest upon the device alone because the destination audience is there for experience. By properly feeding advance information to the visitor and allowing the visitor to network with others who may be more knowledgeable, the phone can be used to upgrade the entry level consciousness of the visitor, so that they enter the space better prepared for the content at hand.

What used to be just a phone now is rapidly becoming a powerful as your laptop. GPS, Bluetooth, WiFi, facial recognition, Internet connection, information storage capacity, motion sensors, directional sensors, speakers, cameras, video cameras, projectors, and an infinitely increasing web of applications make the phone a tool for interaction that cannot be outdone. It is also foolhardy to try to keep up with the rate of change and advancement in these devices. While the visitor is engaged in the space, the phone can be used to recognize and transmit additional story, text that cannot be read directly from the book, interpretations too varied and lengthy to be made into print graphics, additional references that are not present at the exhibit, alternative views of the experience created by other visitors as applications, even deconstructions that are critical of the exhibit itself. In some near future, these phones will have projectors as well, possibly even high definition projectors. Visitors could participate together in creating large-scale projected environments that are topical to the presentation. Also, the phone, which is a camera, can be used to transmit personal enthusiasm for the space and the ideas in the space. This use of photography to virally transmit enthusiasm is best facilitated by consciously creating photogenic and picturesque settings that encourage commemoration. Simply speaking, these are photo opportunities. Those photo-settings become transmittable emblems of place-identity for the exhibit. They can not only be photogenic, but can be cleverly encoded with impressions that the museum or exhibitor wants to project. When a person photographs themselves or videos themselves in the setting and sends the image out along their own network of trusted friends, their credibility adds credibility to the institution, bringing in new and diverse visitors. The upcoming generation uses social networking almost constantly. This new social context of permanently activated connectivity is an asset that needs to be leveraged by institutions that handle content.

I want to stress that interactive technologies and show presentation effects have far greater impact when the visitor is in a space that is activated by narrative design. The dreamlike quality of coherence and resonance and the intuitive navigability of the environment are emotionally satisfying, and make the viewer more receptive to the impressions made by the subject itself, whatever it may be. There is no reason that the custodians of real culture and valid information should not enjoy the popularity and impact of the purveyors of entertainment. My goal has been to delineate some of these without reference to the brand names and specific popular story subjects that often cloud the discussion, and rather to focus on the principles in the abstract, so that you might contemplate them without the distraction of any corporate entertainment identity. I hope that my comments will stimulate some thought about how the pedagogy of the future might embrace the technologies of play. If it were so, I believe the combination would be powerful. It is a fact, borne out by reams of market research studies, that people prefer authenticity today more than ever before. You are authentic. That is the future.