‘Purpose-built’ Art in Hospitals

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‘Purpose-built’ Art in Hospitals: Art with Intent

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INVESTOR IN PEOPLE

Dedication

To Mike, my amazing husband, for his endless patience, love, and support.

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Biography

Dr Judy Rollins, President of Rollins & Associates Research and Consulting, brings nearly 40-years-experience in arts in healthcare. She is a Registered Nurse with a Bachelor of Fine Arts degree in the Visual Arts, a Master of Science in Child Development and Family Studies, and a PhD in Health and Community Studies. She is an adjunct Assistant Professor in the Department of Family Medicine with a secondary appointment in the Department of Pediatrics at Georgetown University School of Medicine, Washington, DC. She is also an adjunct Lecturer at the Center for Arts in Medicine at the University of Florida, Gainesville, FL, where she teaches research and evaluation in the Center's graduate program.

She has developed arts in health care programming in hospitals, hospice care, military settings, and the community. In 2011, she was among the first group of recipients of the Society for the Arts in Healthcare's Distinguished Fellow designation. She serves as an Ambassador for the National Organization for Arts in Health.

Author of over 100 publications, she is an Editor for *Pediatric Nursing* and North America Regional Editor for the *Arts & Health: An International Journal for Research, Policy and Practice.* A two-time winner of the American Journal of Nursing book of the year award, she also is the recipient of the International Society of Nurses in Cancer Care Research Award, Johnson & Johnson/Society for the Arts in Healthcare Partnership to Promote Arts and Healing Award, National Science Foundation Scholarship, The Japan Foundation Center for Global Partnership Travel Award, and Georgetown University's Mary M. Hoobler Distinguished Service Award.

In 2016, she was appointed a Scholar at The Institute for Integrative Health, Baltimore, MD, which supported her international research on artwork in hospitals. She consults, writes, and researches on health care issues nationally and internationally, with a special interest in arts-informed research.

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Preface

Over the past three decades, guidance for the selection of hospital art has suggested realistic art that depicts soothing and comforting images such as tranquil waters, green vegetation, flowers, open spaces, and compassionate faces (Ulrich, 2009). Based on these findings, those who select or commission art for hospitals have been cautioned to avoid art with uncertain meaning or risk upsetting viewers already in a stressful state. However, some hospitals exhibit ambiguous or abstract art and cite anecdotal evidence of its appropriateness for health care settings (Lankston, Cusack, Fremantle, & Isles, 2010; Rollins, 2011; Stenslund, 2017).

Visiting hospitals nationally and internationally, I saw contemporary art that didn't conform to the concept of soothing and comforting. I viewed huge abstract paintings filled with color and excitement, and soaring abstract sculptures from well-known artists. According to the principles of evidenced-based art, ambiguous images were to be avoided, yet none of this art seemed out of place. I was left with some questions. If this art that I see in hospitals doesn't sooth and comfort, why is it there? What other purposes might it serve?

About this time, Dr Upali Nanda, now Associate Professor of Practice in Architecture, University of Michigan, and Director of Research, HKS, a global architectural firm in Houston, TX, was Guest Editor for a special issue of *HERD: Health Environments Research & Design Journal.* In the past, we had discussed my interest in the use of abstract and other challenging types of art in hospitals, and she invited me to submit a manuscript on the topic. The writing of the article "Arousing Curiosity: When Hospital Art Transcends" was a wonderful thinking experience for me, which led to a yearning to learn more.

Eager to find some answers, I began an informal search in the United Kingdom in 2012. With the kind networking assistance of Anne Avidon, Head of Global Health Innovation at UK Trade & Investment Life Sciences Organisation, I went to London and interviewed eight individuals who select or commission art for hospitals in England, and toured five hospitals in London. Additionally, I attended Quinton Blake's "Larger than Life" exhibition at The Foundling Museum, a collection of giclée prints created for specific hospital situations in England and France. British art historian Richard Cork, whose book *The Healing Presence of Art: A History of Western Art in Hospitals* was about to be released, graciously granted me an interview in which he shared his insights about the purpose of art in hospitals. This 10-day experience highlighted for me the variety of opinions on the topic, and that the study of art in hospitals required an international lens.

In 2016, Dr Brian Berman and Susan Berman of The Institute for Integrative Health in Baltimore, MD, invited me to become a Scholar. As a Scholar, I had the amazing opportunity to conduct this international qualitative study that explored artwork in hospitals throughout the world through the dual lens of an artist and a health care professional. Through this research I discovered many purposes of artwork in hospital settings – ways individuals in hospitals can and actually do use artwork – beyond to sooth and comfort. Although some artwork selected to fulfill a purpose may already exist, much of the art is commissioned, thus the term 'purpose-built' art.

Recent research has gone beyond anecdotal evidence in support of abstract and more challenging art in hospitals. Findings from a study by Danish researchers indicated that the ambiguity of meaning in abstract compositions can have positive effects, facilitating patients' memories, thoughts, and feelings, addressed as experiential domains of well-being (Nielsen & Mullins, 2017).

An abundance of theories and research support the use of soothing and comforting images, especially nature (beginning with Ulrich in 1984). There is an emergent need to find and develop rationales and theories to support the use of artwork with other purposes as well. It is hoped that '*Purpose-built' Art in Hospitals: Art with Intent* can begin to fill this evidence gap, generate additional research, and encourage more variety in art offerings to better serve the many diverse needs of patients, families, visitors, and staff within the hospital environment.

Judy Rollins
May, 2021

Acknowledgments

There are so many people who made this book possible. I begin by thanking Brian and Sue Berman of The Institute for Integrative Health who believed in the importance of taking a closer look at how art is used in hospitals and supported my work.

Research assistants Jacob Brown and Christine Rollins did a deep dive into the literature and presented a comprehensive review that guided my work, for which I am most grateful.

To all of the people throughout the world who so generously gave of their time to speak with me, answer my many questions, provide tours of art collections, and assist with tracking down photographs and permissions. I am very grateful. Thanks to all of you, I learned so much.

And a thank you to Ben Doyle, formerly with Emerald Publishing, who contacted me, decided that my book could fill a gap in the area of arts in health, and offered me a contract.

Thank you also to everyone on the Emerald Publishing team, especially Paula Kennedy, Publisher, whose understanding of the impact of the world's troublesome events occurring at the time of this writing was so important and much appreciated.

And finally, I offer my deep appreciation to my husband Mike for tirelessly providing hours of technical support and looking out for my well-being. Thank you for always being there for me.

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Introduction

> Hospitals can undoubtedly do more to look after the whole person, not just the patient's bodily ailment. Many critical moments in our lives occur there, from birth through to death, and they deserve to take place in surroundings that honour their true significance. (Richard Cork, 2012)

For centuries, art has been exhibited in hospitals for a variety of reasons, such to honor a patron or religious figure, depict daily activities of the hospital, offer prayer, or reflect the hospital's power and prestige. An excellent recording of the history of art in hospitals in the Western world can be found in Richard Cork's (2012) gorgeously illustrated book, *The Healing Presence of Art*. Not until recent history has there been a deliberate focus on the ability of hospital art to affect the well-being of patients, their families, and hospital staff, and to improve the health care experience.

Today, a variety of artwork can be found in corridors, waiting areas, exam rooms, gardens, patient rooms, and other areas in hospitals worldwide. A review of postings on the London Arts in Health Forum suggests that most hospitals in the United Kingdom have art on display. In 2004 and again in 2007, the Society for the Arts in Healthcare, in partnership with Americans for the Arts and The Joint Commission, conducted surveys to examine the presence of arts programming in US health care facilities. The surveys revealed that over half of hospitals have permanent displays or rotating displays of art (State of the Field Committee, 2009).

Policies influence the increased presence of art in hospitals. Australia has a long history of the government-funded practice of funding art in public buildings, and with the Art for Public Buildings Scheme (now the Artsite Scheme) of 1979, this practice now includes hospitals (Arts Tasmania, 2013). In Europe and the United States, money for the embellishment of new hospitals or major renovations of older hospitals is commonly raised by the "percentage for art" scheme. A small percentage, typically 1% of capital expenditure, is allocated for commissioning artists to create work for the hospital. In Sweden, although administrative buildings are required to allocate 1% of construction costs to art, buildings engaged in care allocate 2%. Other countries without a formal policy often follow the percentage of art scheme as a guide.

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Research suggests that the presence of art in a hospital can have important implications for the hospital. Slater, Braverman, and Meath's (2017) survey of patients after hospital discharge found that their rating of the hospital's arts environment significantly predicted their likelihood to recommend the hospital to others. In another study, Sadler and Ridenour (2009) described a case study at AtlantiCare Regional Medical Center in New Jersey where increases in patient and staff satisfaction ratings corresponded to a growing presence of the arts and artists in their facility.

With the growth of technology and national and international organizations specifically dedicated to arts in healthcare, the provision of artwork in hospitals is becoming more mainstream and complex worldwide. A look at some issues related to this emerging field is introduced below.

A Dichotomy: Art to Sooth and Comfort or Art to Challenge

Attitudes and expectations about the purpose of art in hospitals tend to fall into one of two positions. The first claims the function of art in hospitals is to comfort, support, soothe, and relieve the discomfort, perhaps even fear, anxiety, and sorrow that can be part of the hospital experience. Rønberg and Jørgensen (2017a) explained that, methodologically and scientifically, this "soothing" position often relies on evidence-based foundations that can yield exact, unambiguous data on which type of pictures patients prefer and therefore thrive with. In research, these kinds of pictures have been classified as "evidence-based." Art, in this context, is understood to mean "pictures": two-dimensional planes with a given subject depicted on them. Such evidence-based pictures correspond closely to the kind of art that traditionally made up hospital collections in the past:

> […] pictures that can be viewed and read on the basis of the classic groupings familiar from art history and the hierarchy that was firmly established at the French art academy in the seventeenth century: figure painting, portraits, landscapes, animals, still lifes, etc. A ranking in which depictions of human beings – often taking part in large-scale figure compositions – occupy the top, while still lifes – inanimate nature – are placed at the lowest end of the scale. (Rønberg & Jørgensen, 2017a, p. 14)

The evidence-based studies, however, introduced a shift in the classical hierarchy because those evidence-based pictures with measurable positive impact on patients consist of views of nature, moving landscapes to the highest rung of the hierarchy for evidence-based pictures. The preferred scenes feature running water, brightly lit open foregrounds and views of green, sunlit summery landscapes, figures with which to identify, lush flora, and wide vistas where no threatening animals can be seen (Ulrich, 2009). Rønberg and Jørgensen (2017a) described this position, which is represented by Roger Ulrich and the academics who follow his theses and methods, as landscapes with a complete absence of elements that might cause distress

or discomfort in patients and their families or disturb the hospital staff in their everyday work. These works of art serve as positive distractors – environmental features that elicit positive feelings and hold attention without taxing or stressing the individual, thereby blocking worrisome thoughts (Ulrich et al., 1991).

The second position, counterpart to the soothing position, is called "challenging." In the late 1980s, Linda Moss claimed that the intention of using the arts in hospitals is not to distract but to allow people to sort their experiences through the arts as a personal, private alternative to the more defined communication of conversation (L. Moss, 1987). This position is also represented by two physicians and art aficionados Ib Hessov and Lars Heslet. They proposed that art's inherent ability to create experiences, generate reflection, and stimulate discussion is crucial to patient well-being (Heslet & Dirckinck-Holmfeld, 2007). This position implies the fundamental belief that art will – as long as it is good – by its very nature have these challenging qualities and therefore be potentially healing regardless of whether it is classic or modern, light or dark, dramatic or subdued, and abstract or narrative. Also, this position acknowledges that hospitals offer the opportunity for a very wide range of art, but it should never be bland. The theory of "good art" is prevalent, a theory that is familiar within the realm of art in public spaces. Also, the focus is exclusively on quality, leading to a privileging of works created by professional artists. Here, a clear distinction is made between professional art and other types of pictures (e.g., framed reproductions), which are also part of many hospital collections.

Hospitals around the world each have their own strategies for incorporating and balancing these positions, which will be discussed further in Chapter 17: "Transforming the Hospital Experience through Art." However, almost all art strategy program authors agree that art should humanize the hospital, introducing the human scale to the setting by creating, for example, a home-like safe, relaxing atmosphere. At the same time, many art strategists also welcome edgy art: "… art that startles and surprises, art that is thought-provoking, challenging and stimulating. It should offer distraction, reflection and experiences while also never becoming too insistent" (Rønberg & Jørgensen, 2017a, p. 15).

In considering what art is appropriate for hospitals, Grehan (2008) made the important point that, unlike an art gallery, a hospital is an involuntary site for art. For the most part, people do not expect to engage with art when they enter a hospital. If patients are anxious about their illness and hospitalization, their willingness and even ability to engage with art might be reduced. Taken further, in some cases, art may be an unwarranted intrusion.

Curiosity: The Common Thread?

When British landscape painter and former president of the Royal Academy of Art, Roger de Grey, was asked for advice about what type of art is appropriate for a hospital, he replied that any work that you can walk past without it evoking a response of some sort should be avoided (Scott, 2019). Could one hypothesis be that a common thread among artwork that is useful in some way in a hospital setting is artwork that *arouses curiosity* in the viewer, draws the viewer in, and

has the potential to bring about cognitive and/or perceptual change? "Arousing Curiosity: When Hospital Art Transcends" proposed that curiosity theory is a rationale for why viewers are drawn to certain works of art and not others in a health care setting or elsewhere (Rollins, 2011). If there isn't something about the art – whether "soothing" or "challenging" – that causes viewers to pause for a moment, how can we expect viewers to be drawn in and the art have the opportunity to do the work it is intended to do?

Perhaps what causes the viewer to pause is curiosity. Binson (2009) defined curiosity as a disposition to inquire, investigate, or seek after knowledge, or, quite simply, a state of mind in which an individual wants to learn more about something. Curiosity is both a complex feeling and cognition accompanying the desire to learn what is unknown. Berlyne (1954) distinguished between the domains of curiosity most commonly exhibited by humans and nonhumans along two dimensions, both of which can be activated by art in health care settings:

1. *Epistemic curiosity*, which is the desire for a particular piece of information.
2. *Diversive perceptual curiosity*, which is sensation driven by stimulus novelty or the desire to avoid boredom or sensory deprivation.

Berns' incongruity theory of curiosity builds on Berlyne's ideas but considers curiosity as an internally motivated drive. The theory proposes that our curiosity is raised when we encounter something that does not fit our normal worldview (Berns, 2005). The world is seen as a place that more or less follows an orderly and predictable set of rules. When this order is challenged, we try to figure it out. Most of us can likely recall viewing artwork that challenged our normal world view and aroused our curiosity.

Loewenstein (1994) modified the theory somewhat based on the observation that curiosity often increases with an individual's expertise in a particular domain. For example, if someone is a quilter and is really interested in quilts, he or she might have intense curiosity about a quilt exhibition. Someone else with no interest in the topic might not even notice it.

Curiosity motivates exploratory behavior. Exploration can be triggered and rewarded for situations that include novelty, surprise, incongruity, and complexity. Dopamine plays a role in processing novelty. Dopamine is heavily associated with the pleasure system in the brain and its continued release provides feelings of enjoyment and reinforces the activity, such as viewing a piece of sculpture that fosters those feelings (Kakade & Dayan, 2002). Research findings revealed that the most rewarding situations are those with an intermediate level of novelty, between already familiar and completely new situations (Berlyne, 1960).

Boredom, common in hospital settings, is also a factor in curiosity seeking behavior. Boredom produces high levels of arousal. When stimulus intensity is low and arousal is high in an impoverished environment, individuals attempt to increase arousal by seeking curiosity inducing stimuli. The husband we see walking the corridors while awaiting word of the outcome of his wife's surgery may not be simply stretching his legs, but actively seeking something that captures his curiosity. Humans crave distraction, an idea supported by sensory deprivation studies carried out in the 1950s and 1960s (Clark, 2010).

Panksepp (1998) spoke of the existence of a seeking system that drives and energizes many mental complexities that humans experience as persistent feelings of interest, curiosity, sensation seeking, and in the presence of a sufficiently complex cortex, the search for higher meaning. Because of the curiosity of human nature, we wonder about what we do not know. This curiosity creates openness to unfamiliar experiences, laying the groundwork for greater opportunities to experience discovery, joy, and delight:

> When we are curious, we see things differently; we use our powers of observation more fully. We sense what is happening in the present moment, taking note of what is, regardless of what it looked like before or what we might have expected it to be. We feel alive and engaged, more capable of embracing opportunities, making connections, and experiencing moments of insight and meaning – all of which provide the foundation for a rich, aware and satisfying life experience. (Kashdan, 2010, Section 2)

Curiosity fosters spiritual development over the lifespan by stimulating exploratory behavior (Berlyne, 1960; Kashdan & Roberts, 2004; Loewenstein, 1994). As we develop spiritual awareness and begin to integrate thoughts, actions, and behaviors that promote growth and transcendence, we tend to develop a well-defined worldview that defines our reality and allows us to maintain a positive, optimistic outlook on life and death. Art is inspiration, and that inspiration itself has its basis in spirituality. Thus, a definition of art might include the understanding that art is a form of communication that delivers the artist's understanding of existence. Further, the artwork's theme, along with the techniques and style used, is the means for the artist to communicate that message.

Kashdan et al. (2018) developed a model to understand and measure curiosity. The model defines five dimensions of curiosity:

1. *Joyous exploration* – the recognition and desire to seek out new knowledge and information, and the subsequent joy of learning and growing.
2. *Deprivation sensitivity* – pondering abstract or complex ideas, trying to solve problems, and seeking to reduce gaps in knowledge, with anxiety and tension being more prominent than joy.
3. *Stress tolerance* – the willingness to embrace the doubt, confusion, anxiety, and other forms of distress that arise from exploring new, unexpected, complex, mysterious, or obscure events.
4. *Social curiosity* – wanting to know what other people are thinking and doing by observing, talking, or listening in to conversations.
5. *Thrill seeking* – the willingness to take physical, social, and financial risks to acquire varied, complex, and intense experiences (Kashdan, 2018, p. 2).

In a more recent study using data from a survey of 483 working adults and 460 community adults, Kashdan Disabato, Goodman, and Mckight (2020) refined the scale and distinguished between two types of social curiosity: the overt desire to learn from other people versus covert and surreptitious interest in what other

people say and do. Overt curiosity reflects an interest in other people's behaviors, thoughts, and feelings. Social information is gathered by directly talking to people rather than surreptitious routes such as gossiping and is associated with healthy psychological outcomes such as open-mindedness, extraversion, agreeableness, low negative emotionality, interpersonal competencies, and low levels of loneliness.

When treating the five dimensions as part of a single profile, Kashdan and colleagues also found evidence of four types of curious people: (1) *the fascinated* are high on all dimensions, particularly joyous exploration; (2) *problem solvers* are high on deprivation sensitivity, medium on other dimensions; (3) *empathizers* are high on social curiosity, medium on other dimensions; and (4) *avoiders* are low on all dimensions, particularly stress tolerance. Using these dimensions, we are able to determine how curious someone is and also what makes someone curious (Kashdan, 2018).

What do these five dimensions suggest regarding hospital art? A few ideas: for the person high in the dimension of deprivation sensitivity, struggling to process a difficult, complex work of art might be an exciting challenge, but also could have negative emotional outcomes such as anxiety. Someone low in the dimension of stress tolerance might become frustrated before such a work of art. A person with high social curiosity might be eager to view art with other people, asking questions and soaking in their responses in an effort to gather information and satisfy this curiosity. The five-dimensional curiosity scale revised (Kashdan et al., 2018) could offer a promising research tool for developing a greater understanding of curiosity to apply to decisions about artwork for hospitals.

In addition to domains of curiosity, there also are two types: trait and state. "Trait" or "individual" curiosity is a general tendency to experience interest or curiosity, while "state" or "situational" curiosity is a transitory feeling of curiosity that arises in a particular situation (Kashdan & Fincham, 2004). Although not every viewer of art in hospitals will have a high level of trait curiosity, all viewers can likely benefit from being in a curiosity rich environment with the possibility of evoking the temporary state of situational curiosity. Remembering that curiosity can be aroused by a desire for knowledge; a desire to avoid boredom or sensory deprivation; by novelty, surprise, or complexity; and by the search for higher meaning, arousing curiosity can be significant concept to consider when creating such an environment.

Processing Art

Visual stimuli undergo an aesthetic evaluation process in the human brain by default, even when not prompted (Nanda, Pati, & McCurry, 2009). Responses may be immediate and emotional. Aesthetics can be a source of pleasure, a fundamental perceptual reward that can help mitigate the stress of a health care environment. Knowing how we process art can be helpful in understanding why art can serve an important role in hospital settings. The field of neuroaesthetics – a field of research emerging at the intersection of psychological aesthetics, neuroscience, and human evolution – is a significant contributor to this understanding (International Network for Neuroaesthetics, n.d.).

The Beholder's Share

Art is incomplete without the perceptual and emotional involvement of the viewer. According to Riegl (2000), not only do we collaborate with the artist in transforming a two-dimensional image on a canvas into a three-dimensional depiction of the visual world, we interpret what we see on the canvas in personal terms, thereby adding meaning to the picture. Gombrich (1960) referred to this concept as the "beholder's share."

Kris (1952) studied ambiguity in visual perception and argued that every powerful image is inherently ambiguous because it arises from experiences and conflicts in the artist's life. In turn, the viewer responds to this ambiguity in terms of his or her own experiences and conflicts, repeating in some way the artist's experience in creating the image. Thus, for the artist, the creative process is also interpretative and for the beholder, the interpretative process is also creative.

The extent of the beholder's contribution depends upon the degree of ambiguity in the image. Thus, a work of abstract art, with its lack of reference to identifiable forms, puts greater demands on the beholder's imagination than a figurative work does (Kandel, 2016). Kandel (2016) adds, "Perhaps it is these demands that make abstract works seem difficult to some viewers, yet rewarding to those who find in them an expansive, transcendent experience" (p. 20). Gombrich (1960) extended the concept of the beholder's response to the ambiguity in a painting to all visual perception. Through this he came to understand a critical principle of brain function: our brains take the incomplete information about the outside work that it receives from our eyes and makes it complete.

Bottom Up, Top-Down Processing

We use two sources of information from our brain when processing art: bottom-up information and top-down information (Adelson, 1993). Computations that are inherent in the circuitry of our brain supply *bottom-up information.* These computations are governed by universal rules that biological evolution builds into our brains at birth, which enable us to extract key element of images in the physical world, such as contours, intersections, and the crossings of lines and junctions. These rules help us discern objects, people, and faces; to determine their placement in space (perspective); to reduce ambiguity; and ultimately to construct visual worlds of great subtlety, beauty, and practical value.

Because these rules are universal, we each extract pretty much the same essential information from the environment. This fact explains why, despite incomplete information and potential ambiguities, even young children can interpret images quite accurately and babies can recognize human faces very early in life (Kandel, 2016). We take many of these innate rules for granted, for example, our brain realizes that the sun is always above us, regardless of where we are. Thus, we expect light to come from above.

Bottom-up perception is simply a matter of nativist perception, which is "hard-wired" in our brain (Solso, 2003). Visual stimuli, including art, are initially organized and perceived. Bottom-up information processing relies mostly on low- and intermediate-level vision (Kandel, 2012).

Abstract art subverts the innate rules of perception and depends more extensively on top-down information than does figurative art (Kandel, 2016). *Top-down information* applies to cognitive influences and higher-order mental functions such as attention, imagery, expectations, and learned visual associations. Bottom-up processing cannot resolve all of the complex information we receive from our senses; therefore, top-down processing needs to step in to resolve the remaining ambiguities. Based on experience, we must guess the meaning of the image before us by constructing and testing a hypothesis. Top-down information positions the image into a personal context, thereby conveying different meanings about it to different people (T. Albright, 2013; C. Gilbert, 2013).

Top-down processing also assumes the critical role of suppressing components of the visual scene that we unconsciously deem irrelevant. Recognizing an image takes place serially; we must shift the focus of our attention frequently, linking relevant components of the scene and suppressing those that are irrelevant. Information is reappraised and operates on four principles: (1) it disregards details that are perceived as behavioral irrelevant in a given context; (2) it searches for constancy; (3) it attempts to abstract the essential, constant features of objects, people, and landscapes; and (4) it compares the present image to images encountered in the past. Thus, the creativity of the beholder's share described by Kris (1952) derives in large part from top-down processing (Kandel, 2016).

Perception combines the information our brain receives from the external world with knowledge based on learning from earlier experiences and hypothesis testing. This knowledge we bring to bear on every image we see. Explained Kandel (2016, p. 23):

> Thus when we look at an abstract work of art, we relate it to our entire life experience of the physical world; people we have seen and known, environments we have been in, as well as memories of other works of art we have encountered.

Kandel argued that the assimilation of the new – the recruitment of top-down processes as part of the beholder's creative reconstruction of the image – is inherently pleasurable because it stimulates our creative selves. Because top-down processing involves brain systems that are concerned with memory, emotion, and empathy as well as visual perception, abstract art can induce an uplifting sense of spirituality. Top-down processing contributes to the positive experience that many beholders have in the presence of certain works of abstract art and gives meaning to Rothko's words that "A painting is not a picture of an experience. It is an experience" (Rothko, in Kandel, 2016, p. 130).

The Viewing Process

Viewing art engenders a variety of emotions, evokes evaluations, physiological reactions, and in some cases can mark or alter lives (Pelowski, Markery, Lauring, & Leder, 2016). Great differences in reactions can occur between individuals and settings, or evolve within individual experiences themselves.