

The Animated Muse: An Interpretive Program for Creative Viewing

• • • • •

AUSTIN CLARKSON AND DOUGLAS WORTS

ABSTRACT Explore a Painting in Depth, an experiment presented in the Canadian Collection of the Art Gallery of Ontario, consisted of a booth that offered seating for two visitors and, opposite them, *The Beaver Dam*, a 1919 landscape painting by the Canadian artist J. E. H. MacDonald. In a 12-minute audio-guided Exercise for Exploring, visitors were invited to engage in a creative process with the imagery of the painting. This paper sketches how the experiment evolved, presents the background of the Exercise for Exploring, and surveys the effects of the exhibit on a wide range of visitors. The question is raised: How can facilitating visitors' creative responses to artworks be part of the museum's educational mandate and its arsenal of interpretive resources? More broadly: Do strategies that foster and privilege visitor creativity, as well as honor the creativity of artists, affect the accessibility and relevance of the museum for the general public?

INTRODUCTION

In January 1993, an experimental interpretive exhibit opened in the Canadian Collection of the Art Gallery of Ontario in Toronto (AGO). Explore a Painting in Depth consisted of a booth with seating for two visitors and a painting mounted opposite them (figure 1). The canvas was *The Beaver Dam*, a landscape painted in 1919 by the Canadian artist J. E. H. MacDonald (*for figure 2, see color pages in this issue*). There were headphones and a touchpad for selecting among three audio programs. One program provided a three-minute curatorial introduction to the painting. A second offered a three-minute "portrait of the artist" using the words of his friends and relatives. The third, the Exercise for Exploring, was the heart of the experiment. It lasted 12 minutes and engaged the visitor in a creative process with the imagery of the painting. After a simple relaxation, viewers

Austin Clarkson (clarkson@yorku.ca) is professor of music emeritus, York University, Toronto, Ontario, and a founder of the Milkweed Collective, a community of artists and writers who do workshops on creativity for children and adults. Douglas Worts (Douglas_Worts@ago.net) is a founding member of the Visitor Studies Association, a co-chair of the steering committee of Museum Alberta's Museum Excellence Program, and an interpretive planner and audience researcher in the Canadian Art Department of the Art Gallery of Ontario.



Figure 1. Explore a Painting in Depth, a booth at the Art Gallery of Ontario, 1993. *Photo courtesy of the Art Gallery of Ontario.*

were invited to use their imaginations to “enter” the image and identify with colors and shapes. At the end, the visitor was invited to describe his or her experience in words, or images, or both, on a seven-by-nine-inch Share Your Reaction card (SYR). One of the first cards left in the booth is shown in figure 3. Below the evocative drawing are the words:

MacDonald's Canoe by [—] Late August in a cove by Georgian Bay. Summer's end . . . Autumn's red from night frost started. I'm in the woods behind the rock, climbed up & am looking down. Fresh. Wondrous.

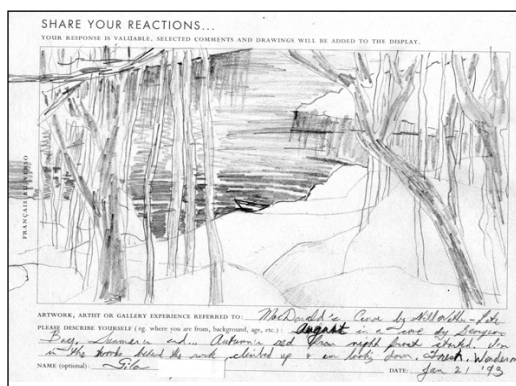


Figure 3

During the exercise, the visitor imagined crossing the dam and climbing past the boulder and into the woods. From that point of view, she sketched the scene with trees in the foreground, the canoe much smaller, and the pond stretching into the distance. The experience called up a vivid memory of late summer in the cottage country north of Toronto and a poetic reflection on the turning of the leaves. The drawing, the poem, and the words “fresh, wondrous”

indicated that the Exercise for Exploring provided this visitor with a personally meaningful, creative, and moving encounter with the painting.

A picture's life—Some artists insist that their creations are not complete until viewers have contributed their responses to them. During an interview, Picasso stated:

A picture is not thought out and settled before hand. While it is being done, it changes as one's thoughts change. And when it is finished, it still goes on changing, according to the state of mind of whoever is looking at it. A picture lives a life like a living creature, undergoing the changes imposed on us by our life from day to day. This is natural enough, as the picture lives only through the man who is looking at it (Zervos 1935, 173).

The idea of constructed meaning has been discussed for some time (Hein 1998; Falk and Dierking 1992; Silverman 1995), but implementation of the idea has yet to fundamentally affect museum exhibition practices. While it is not uncommon for museums to invite visitors to share their reactions on cards or at computer stations, museum personnel stop short of actively encouraging the production of imaginative responses. Explore a Painting in Depth was designed to facilitate the visitor's creative engagement with an artwork. Approximately 2,000 SYR cards were left in the booth between 1993 and 2003. Although small in number, given the volume of people entering the Canadian Galleries, the SYR cards demonstrated to members of the development team that the exhibit was successfully facilitating creative engagement. A visitor study, conducted in 1993 to assess what was happening in the booth, revealed that although only two percent of the visitors who used the facility filled out cards and left them in the booth, the vast majority had similar experiences to those reported in the cards. This suggests that between 75,000 and 100,000 visitors made use of the exhibit during the 10-year period.

This paper sketches how the experiment evolved, presents the background of the Exercise for Exploring, and surveys the effects of the exhibit on a wide range of visitors. The question is raised: How can facilitating visitors' creative responses to artworks be part of the museum's educational mandate and its arsenal of interpretive resources? We shall also consider how strategies that foster and privilege visitor creativity, as well as honor the creativity of artists, affect the accessibility and relevance of the museum for the general public.

BACKGROUND

In 1986, Dennis Reid, then curator of the Canadian historical collection of the AGO, invited his colleagues in the education department to collaborate on renovating the gallery that was dedicated to artworks by the Group of Seven, Canada's best-known school of landscape painters. His initial goals were modest: to add a few text panels and rearrange the artworks. Educators David Wistow and Douglas Worts had questions they wished to answer before taking any actions. What was the nature of most visitors' experi-

ences? Did they understand the curator's reasons for the installation? What was the range of optimal experiences that could be facilitated through a new approach to the installation?

It was during this early research that the apparently superficial nature of viewer experience was documented. For instance, tracking studies showed that visitors averaged only five seconds per artwork they stopped to look at. The plan to re-install the gallery had three objectives: 1) to increase the time visitors spend in the gallery; 2) to provide multiple points and methods of access to the collection; 3) to increase viewer focus on the artworks; and 4) to ensure that all interpretive devices would be both unobtrusive and optional. The redesigned gallery opened in 1989 with seven thematic areas that made use of interactive labels, computer programs, and digital audio recordings. The public greeted the new facility with enthusiasm. Follow-up research showed that visitors spent considerably more time in the area, paid much closer attention to the artworks, and interacted more with each other while going through the exhibits (Worts 1989; 1990).

The members of the team were pleased with the results of the project, especially with respect to introducing different types of information and using a range of delivery devices. But we realized that we still had much to learn about how individuals personalize aesthetic experiences. A grant was obtained from the Government of Canada to study "meaning-making" in conjunction with a major expansion of the AGO that took place between 1990 and 1993. The team organized meetings with selected educators across North America, especially from science and children's museums where the most advanced thinking was taking place. A two-day think-tank involved educators, curators, psychologists, and audience researchers.

One significant influence on the Explore a Painting in Depth experiment was the psychology of C. G. Jung, whose work on creative imagination, symbolic experience, and identity formation had captured the team's interest. During the two-year period when the Canadian Galleries were shut down for renovations, the research and development process continued with workshops, mocked-up exhibits, and visitor research. Worts assembled a group of three specialists (among them, Austin Clarkson) from the fields of environmental studies, cognitive science, and aesthetic education. This group met regularly with the Canadian Galleries Development Team for over a year. The result was the complete re-design of the Canadian Galleries (Worts 1995).

Among the concepts that emerged was a facility that would combine outer-directed with inner-directed approaches to the interpretation of a single work of art. The three audio programs mentioned above were designed to strike this balance. One program would elicit creative responses from viewers themselves, while the other two programs would present information from traditional authorities. Combining inner-directed with outer-directed interpretations would, it was hoped, provide a more holistic, meaningful, and memorable aesthetic experience.

The Exercise for Exploring was adapted from a curriculum on the creative imagination that has been offered since 1984 at a university in Toronto (Clarkson 2005). The course was designed to engage fine arts majors in the deep structure of the creative process, and was based on concepts largely derived from Jungian psychology. Jung regarded

creativity as a drive that guides the individual to the actualization of his or her innate potential. To that end, he developed a method for activating the imagination to facilitate the spontaneous expression of images, for he held that such images “can be the highest expression of a person’s individuality. . . and may even create that individuality by giving perfect expression to its unity” (Jung 1921/1971, 428). An exercise that had been developed in the course for activating the imagination while viewing a painting or sculpture was adapted for the exhibit.

The imagination is most receptive to imagery when the individual is in a reflective or meditative attitude, the so-called presentational state of awareness. By contrast, the critical and descriptive approach to art calls for representational thinking. The distinction between presentational and representational modes of thinking has been discussed by Langer (1942), Heidegger (1959), and Arendt (1978). Harry T. Hunt describes the presentational state as follows:

Meaning emerges as a result of an experiential immersion in the expressive patterns of the symbolic medium. It appears as preemptory imagery and is fully developed in the expressive media of the arts. Here, felt meaning emerges from the medium in the form of potential semblances that are “sensed,” polysemic and open-ended, and so unpredictable and novel. It is the receptive, observing attitude common to aesthetics, meditation, and classical introspection that allows such meanings to emerge (Hunt 1995, 42).

In this state of “presence-openness,” the creative imagination generates images that bring personal meanings, feelings, sensations, and intuitions to the experience of the artwork being viewed. Jung referred to this state as the “transcendent function” (1960), because it puts focused conscious ego awareness in touch with the contents of the unconscious. Silvano Arieti referred to it as the “tertiary process,” because it links the “primary process” of the unconscious with the “secondary process” of conscious awareness (Arieti 1976, 186). Following Jung, Anthony Stevens finds that such authentic images and felt meanings have an adaptive, homeodynamic, and life-fulfilling tendency (Stevens 1995).

Aesthetic experience, according to John Dewey, is more than mere contemplation. It involves a creative engagement with the artwork so that the viewer and the artwork merge in a greater unity. The outcome is a procreative act, as “when varied materials of sense quality, emotion, and meaning come together in a union that marks a new birth in the world” (Dewey 1934/1958, 249, 267). Applying the principles of the psychology of the unconscious to the education of artists, the masters of the Staatliches Bauhaus at Weimar developed a curriculum that balanced intellectual inquiry with the deep structure of the creative process. Paul Klee said, “The power of creativity cannot be named. It remains mysterious to the end. But what does not shake us to our foundations is no mystery. We ourselves, down to the smallest part of us, are charged with this power” (Klee 1961, 17). In humanistic psychology, such events are described as “peak experiences” (Maslow 1962) or “flow experiences” (Csikszentmihalyi 1990). For Hunt, such experiences attain “a sense of presence, or ‘I am,’ . . . one’s here-and-now being, . . . a special sense of felt

reality and clarity, with a concomitant sense of exhilaration, freedom, and release” (Hunt 1995, 200). These effects were achieved in the university classroom in successive iterations of the course, and by teachers who adapted the curriculum for middle and high school classrooms (Clarkson 2003, 69). The challenge was to achieve such aesthetic experiences via an audio program in a museum setting.

EXERCISE FOR EXPLORING

The Exercise for Exploring went through a lengthy process of development. Prototypes were tested using cued-testing and focus-group strategies. The focus groups were presented with a broad selection of artworks from the Canadian collection, including works that were abstract as well as figurative. These qualitative tests showed a high level of participant engagement in the imaging exercise—as well as a high level of approval.

However, institutional reactions were another matter. Months before the facility was fully realized, the team learned of a rising tide of discomfort with the non-traditional approach, primarily among curators. Although the facility was intended for installation only in the Canadian Wing, curators with responsibilities in other areas of the collection reacted strongly to what they viewed as a threat to curatorial authority. The tension within curatorial ranks grew sufficiently that a formal meeting was organized to deal with the issue. At the meeting, Austin Clarkson laid out the research on psychology and creativity that formed the foundations of the project. At the same meeting, Dennis Reid offered his perspective, which was important in eventually allaying the concerns of curators. Reid said that expert interpretations of artworks are not threatened by the idiosyncratic meanings created by viewers; instead, viewers’ interpretations are complementary to the knowledge and insight provided through the lens of academic disciplines.

This moment of crisis provided team members with a vivid example of a long-standing ideological divide within museums. The time-honored role of curators in researching and passing judgment on objects seemed to be at odds with the kind of imaginative meanings generated by the public. In institutions that are associated with expert, objective insights, the thought of privileging an “anything goes” approach to art can seem threatening. From the opposite end of the spectrum, objective views by experts can seem dry and intellectual in comparison with personal meaning-making, which becomes charged with affect and the power of the creative imagination.

The team believed that the motivation to engage cultural objects, issues and ideas, which comes from intimate and intense experiences, can provoke the public to a dialogue about multiple forms of meaning—historical and contemporary, personal and collective. This, the team felt, was the goal of *Explore a Painting in Depth*. After the meeting, the curators’ concerns receded and the project proceeded. Even so, this conflict continues to rest uneasily in museums. Is a museum’s performance to be judged by the quality of its outputs (exhibits, statements by experts, and so on) or by its outcomes (impacts on visitors)? In both cases, good measures are elusive.

Exhibit construction—The Exercise for Exploring requires a secluded space. A booth was designed with two seats set side by side, each equipped with headphones and a touchpad that controlled the audio programs. The painting was mounted opposite the seats. Visitors could choose among three audio programs: 1) Exercise for Exploring (12 minutes); 2) Exploring the Painting with the Curator (3 minutes); 3) MacDonald the Man and the Artist (3 minutes). Because of the intimacy of the Exercise for Exploring program, participants in the testing phase asked for a choice in the gender of the voice. The exercise was offered with a female as well as a male voice.

The Exercise for Exploring is modeled on the familiar four phases of the creative process (Wallas 1926). The introduction segment of the 12-minute program, which constitutes the “preparation” phase, draws the viewer’s attention to the painting, particularly to the canoe that is drawn up on the beaver dam and the dense forest that rises from the water’s edge. The narrator goes on to say that the artist created an image that reflects his unique experience of the Canadian North, but that the viewer may discover his or her own meaning in the artwork:

There are many ways to explore a picture—for example, talking to an expert about the painting or discovering what the artist’s friends thought about him as a person. Each of these has its own rewards. Another way of understanding a painting better is to spend time with it, using your imagination to enter the world of the picture. Together with what your eyes tell you about the painting, your own thoughts and feelings play an important role in this process. Each viewer experiences the image in a unique way.

The narrator explains that the program consists of a series of exercises that take a little more than 10 minutes; there is no right or wrong way of doing the program, since everyone responds differently; if you do not wish to follow these suggestions, you may take your own path. The viewers are invited to focus their attention on the painting, scan the image all over slowly, and let their impressions come and go freely. The preparation phase concludes with a brief relaxation exercise that focuses on the breath.

During the “incubation phase,” the imagination is activated to engage with the imagery of the painting. Viewers are asked to scan the painting slowly all over, then close their eyes and “see” the artwork with the eyes of the imagination. Focusing the attention in this way generates an imaginative bond with the artwork, such that when viewers are asked to choose a spot in the picture and imagine going to that spot, they have no difficulty doing so. (This happens as readily with abstract as with figurative artworks.) They are asked to look around the picture from that spot and explore it. Various sense modalities are brought into play to further stimulate the imagination. The narrator asks whether visitors can sense the temperature, hear sounds, and feel textures. They are asked to choose a particular color, focus on it, and note the feelings they associate with it. They are asked to focus on a particular shape and imagine becoming that shape and moving about as that shape. The exercise continues with an invitation to let the imagination play freely during the ensuing minute of silence. During this “solo” period, images flow in that bring the creative process to culmination. When visitors report such images as origi-

nal, surprising, and powerful, and that they have had a peak experience, we can describe this as the “illumination” phase of the process.

The exercise concludes with the invitation to record the experience in words and/or images on the cards provided. This is the “verification phase,” during which participants document and reflect on the experience. The drawings may be playful scribbles, simple diagrams, rough sketches, or skillful and original creations. Written responses may present the personal meanings and feelings that arose from the exercise, discuss the interpretation of the painting, comment on the facility, or depart into topics of ecology and the environment. The verification phase may continue long after the exercise, when visitors say they will use the exercise on their own with other artworks in the gallery, or teachers write that they will adapt the exercise for their students.

EARLY RETURNS AND THE VISITOR SURVEY

After the exhibit opened in January 1993, we were encouraged to see that the booth was usually occupied and that the Share Your Reaction cards left in the booth indicated that the facility was working as we had hoped. The great majority of cards were warmly appreciative, and some congratulated the museum for such a novel and effective approach to viewing a painting. A few provided helpful comments about aspects of the facility that were unsatisfactory, while only a handful were critical of the basic concept. The program was working as well for seasoned museum-goers as for first-time visitors. Patrons provided considerable information about themselves, including names, addresses, and phone numbers. Some were so enthusiastic that they asked to volunteer to assist the project. Especially gratifying were cards from children and teenagers, since we had not tested the prototypes with youngsters. It also was encouraging to see that parents were doing the program together with their children.

The main recurrent criticism related to the lighting. Efforts to reduce the glare on the painting were only partly successful, because the dark areas were highly reflective. Other complaints occasionally surfaced: that the seats were too hard, the frame of the painting was unsuitable, the color on the walls of the booth was disagreeable, the curator's talk was superficial, and the program on the artist was poorly produced. There were suggestions for additional audio programs: one that would provide a formal analysis of the picture and stylistic comparisons with other paintings by MacDonald and the Group of Seven; another for a program of music and poetry by contemporaries of the artist.

We had expected resistance from patrons who preferred outer-directed programs provided by experts and would therefore dismiss an inner-directed process. A few cards said that the Exercise for Exploring was a waste of time that would be better spent on critical commentary and analysis. For them the exercise was “far too long and silly,” “wordy,” “soporific,” “very insulting and condescending,” “pretentious and intrusive,” “boring,” and “new age babbling.” One card had this to say:

I hate to be negative, because on the whole the new gallery is wonderful. But program #1, female voice, *The Beaver Dam* exploration is very silly. I was hoping to hear about

art—and maybe the other selections cover this—but this heely-feely [*sic*] approach to art is just a bit much! Less new age, more content, please.

But the positive responses outnumbered the negative by more than 10 to one, and cards such as the following from a 38-year-old woman confirmed that the installation was by and large a resounding success:

Very pleasantly surprised and extremely impressed. It was an unexpectedly enjoyable experience! I was prepared for a somewhat dry, pedantic explanation of the picture but instead was rewarded with a relaxing yet stimulating exploration which has truly increased my appreciation for the picture itself. I don't want to get excessive but it was just so well done and such a nice 15+ minutes that it's difficult *not* to express enthusiasm. MOSTLY—THANK YOU!

Since the cards collected during the first six months represented only a tiny fraction of the visitors who used the booth, we conducted a survey to find out whether the cards were providing an accurate picture. During a six-week period in July and August of 1993, two research assistants observed visitors in the Group of Seven Gallery and their use of the Explore a Painting in Depth facility. While the facility was under observation, it was occupied about 80 percent of the time. When it was occupied, visitors who appeared to be interested in using the booth walked on by. Because the booth could only accommodate two people at a time, and because visitors would frequently stay in it for 10 to 15 minutes, many visitors did not have a chance to use the exhibit. Only a very small number of users (less than two percent) were observed to use the SYR cards and leave them in the booth.

The criterion we established to determine whether an interview would occur required that the visitor sit down and listen to one or more of the audio programs for at least one minute. As the visitor left the booth, a researcher approached, introduced himself, and described the purpose of the survey. Approximately 90 percent of those who were approached agreed to be interviewed; the researchers were impressed by how willingly they talked about their experiences. The 10 percent who declined usually cited time constraints. The interviews were conducted in a quiet seating area in an adjacent gallery and generally lasted between 10 and 15 minutes. One hundred and ninety-eight visitors were interviewed.

Over two-thirds of the respondents spent six minutes or more in the booth, and one-third spent more than 12 minutes. Many said that the exercise changed the viewing experience by making them stop, take time, relax, and look. They said that the program helped them to see colors, shapes, and other details of the painting that they would not have noticed otherwise. One said “previously hidden subtleties sprang forth,” another that the result was “a deeper overall sense of the picture.” Many remarked that at first the painting seemed dull and boring, but that the exercise made it extremely interesting: “The painting was originally not special. I felt grateful to go from surface viewing to a much deeper experience.” One woman said that the program helped break through a resistance to the Group of Seven that she had acquired in high school.

Table 1. Explore a Painting in Depth: Summary of Audience Research.

	Percent of Visitors Interviewed N = 198
<i>Programs Listened To:</i>	
Exercise for Exploring	86%
Curator's Reflection	64%
About the Artist	46%
<i>Time Spent in Facility (minutes):</i>	
1 to 2	5%
2 to 6	25%
6 to 12	32%
12 to 18	26%
more than 18	11%
<i>Experiences:</i>	
Imagined "entering painting"	69%
Imagined sounds, smells or temperature	70%
Appreciated relaxation exercises	78%
Recommended more of these facilities	91%
Used a SYR card	2%

The exercise worked as well for children as for adults. An eight-year-old girl said that she found herself inside the painting rather than looking at it, and a nine-year-old boy said that it made him feel excited and energetic, that the painting got bigger than it really was, and now that he can look past "the frames and stuff" he might "go into" other pictures on his own. Most respondents said that the program greatly deepened the experience and that increasing the time spent in the exercise enhanced their ability to appreciate the painting.

The invitation to "go into" the painting drew forth many stories. Some people sat on the dam and put their toes in the water. Others stood beside the dam or went to the big rock to the right. A few crossed to the woods in the background. Several sat in the canoe, while others went for a paddle or a skinny dip. Youngsters took off on action-packed adventures. The eight-year-old girl sat in the canoe and paddled around the pond, climbed a tree, found a bird's nest, then climbed the rocks. The boy of nine walked across the dam and then got up on the big rock, jumped off the rock into the water, and swam around. He then met an Indian boy and asked for a canoe ride. The two paddled twice around the lagoon, then got out of the canoe and started to explore the woods. A boy of 10 said that he lay on the rock with his hand in the water, then ran around on the rocks in the background and threw pebbles in the pond.

Respondents reported on the various sense modalities. The sense most often evoked, besides vision, was hearing. Nearly two-thirds of those who did the exercise

imagined sounds; over one-half reported sensing temperature; nearly one-half described smells; and one-third said they felt textures. The scene came alive with the sounds of birds (loon, woodpecker, jay, and eagle), animals (footsteps of deer, beaver tails slapping the water, the rustle of mice, squirrels, and chipmunks in the underbrush), insects (mosquitoes and crickets), water (the stream trilled, trickled, rushed, babbled, and bubbled, and the pond water lapped against the boat), and wind (breezes rustled the leaves), while branches snapped and brush crackled under foot.

Asked how the program left them feeling, the most frequent responses were “great,” “really good,” “happy,” “serene,” “peaceful,” “easy-going,” “calm,” and “very, very mellow.” A teen-ager said that he felt content and better about himself because he found himself “at one” with the painting. An older man said that he was enjoying the experience so much that he was sad to leave the picture.

The approval rating was overwhelmingly positive. Of those who listened to some or all of the Exercise for Exploring, two-thirds were very enthusiastic and only five percent did not like it. The responses indicated that activating the imagination produced a remarkable variety of creative engagements with the painting. With 90 percent recommending that similar installations be made available throughout the museum, including galleries of contemporary art, we concluded that the program for creative viewing was a success and a valuable addition to the institution’s interpretive resources.

EFFECTS OF THE PROGRAM

Casual observation and the visitor survey indicated that about two percent of the visitors who used the booth left Share Your Reaction cards. Over the ten-year period, some 2,000 cards that could be positively identified as referring to the Explore a Painting in Depth exhibit were collected from the booth. Some 500 of these were quick sketches of the painting that provided no further information or comments. Most of the cards—1,461—were catalogued and indexed according to the information provided (age, nationality, occupation) and whether the card had a drawing, written remarks, or both. The inventory also indexed the cards according to themes—the imagery, affects, topics, and so on—and general remarks about the facility. The cards were inventoried according to the ages of the visitors, with the totals of cards in each category as follows: pre-teens, 80; teens, 159; twenties, 227; thirties, 173; forties, 107; fifties, 55; sixties and older, 30; age not given, 630.

The cards that illustrate this article are not a random sample. They were selected to exemplify specific points as well as to be more or less representative of a broad range of age groups, nationalities, occupations, and educational and artistic backgrounds. While the great majority of cards were from residents of Canada and the U.S., there were many from Europe, the Far East, Australasia, Africa, and South America. Participants identified themselves as clerical workers and business executives, physicians and therapists, lawyers and school teachers, engineers and practicing artists, teenagers from poor neighborhoods and world travelers, elementary school students and university professors, young children and seniors.

Focusing attention on an artwork and activating the imagination by means of the

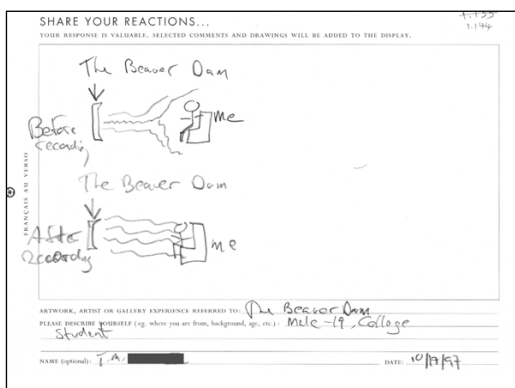


Figure 4

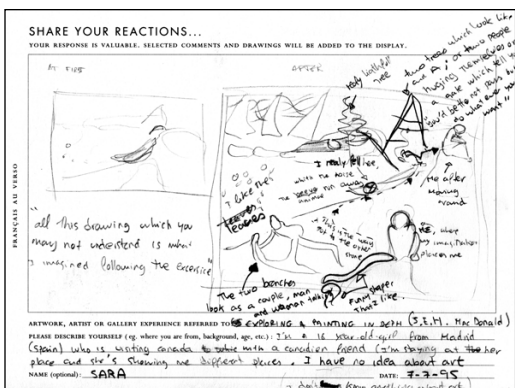


Figure 5

creative process constellates an intense energy field between the viewer and the painting. The painting seems to come alive, and the viewer feels charged with energy. A 19-year-old college student drew before-and-after diagrams of the space between him and the painting: “Before recording: a few rays of energy between ‘Me’ and ‘The Beaver Dam.’ ‘After Recording,’ many rays fill the space between ‘Me’ and the Beaver Dam” (figure 4). The artwork is transformed from a passive object into an active participant in the aesthetic experience. Hundreds of cards reported that the painting, which at first seemed dull and boring, seemed to “come alive.” A teenager from Madrid made two drawings to show the difference between the initial static scene and the subsequent absorbing adventure. She identified figures in the landscape that added meaning to her interpretation: the couple on the dam, the image of the beaver. The experience produced for this young visitor a scenario rich in personal images and feelings (figure 5).

A 20-year-old dance student described how the exercise brought her a new experience of art:

When I first saw this painting it was a blur of colors that held no interest for me. I was curious about what the taped message would tell me, ask of me, so I put on the headphones. The program was terrifically helpful in guiding me to a new experience of art. I have rarely spent as much time with a piece of art. I haven’t before, consciously relaxed, slowed my breathing, closed my eyes and entered the artwork.

Stimulating a wide range of sense modalities—vision, hearing, touch (temperature), and body movement (proprioception)—gives the imagination more scope and intensifies the dimensionality of the artwork. A 22-year-old medical student said that the landscape became a vivid, three-dimensional scene:

At first the painting was just a one-dimensional picture. However, when I began to explore the many facets of the painting as parts and together as a whole, the painting became 3-D reality. I can feel myself moving and roaming in that wilderness. I can smell

and feel the cool waters warmed by the sensational bright orange. It is beautiful and brings back wonderful, soothing, memories. This is a great technique for exploring unknown paintings.

Some visitors remarked on how the exercise reduced and even eliminated the distance between them and the painting. A woman said that a painting she would probably have walked right by “became a part of me and I a part of it.” A 42-year-old educator wrote that the exercise transformed his response not only to this painting but to all artworks that he will view thereafter. It showed him how to form a personal relationship with what he sees: “I have learned to hold the moment—enter into it—and to be with it. The distance between myself and the (art) painting is no longer.” A 36-year-old commerce graduate wrote that before he sat down he was under the impression that art was just something to look at. After listening to the program he realized that “art is also the EXPERIENCE, giving a whole new dimension to it.” The exercise left him feeling charged with energy.

In ordinary conscious awareness, the invitation to “go into” the painting seems incongruous, but when the attention is focused and the imaginative bonding with the artwork is well established, viewers respond readily. A 14-year-old girl, who said that at first she didn’t see much in the painting, demonstrated the merging effect with a drawing that shows her floating in the pond: “After the short exploring exercise I felt like the painting was part of me. This is what I could see after the tape” (figure 6). Merging with the artwork may extend to a sense of identification with the artist. A 38-year-old Bostonian remarked on how he became part of the canvas and how he felt he was collaborating with the artist in transforming the images. “The artist creation once out of the studio is captured, kidnapped and changed by the viewer. The result is something greater than the artist or the viewer. Life as a canvas. Thank you for this experience!” This visitor described the experience as “introactive,” indicating that the process is an inner one. He experienced a parallel creative process with that of the painter and concluded that he had become a collaborator with the artist in an experience of life as art.

In the intimacy of the booth, patrons found a place for a personal, reflective encounter with an artwork. A graduate in visual arts remarked on how it was a “nice private experience of the painting . . . A very intimate and good experience.” A Toronto resident, who left his address and asked to be sent further information on the exhibit, wrote: “The 12 minute exercise was very effective in furthering the intimacy between the viewer and the work. . . I look forward to my return.” A 46-year-old executive in the entertainment industry said the program gave him a new insight into art: “The experience with the audio guide made for a

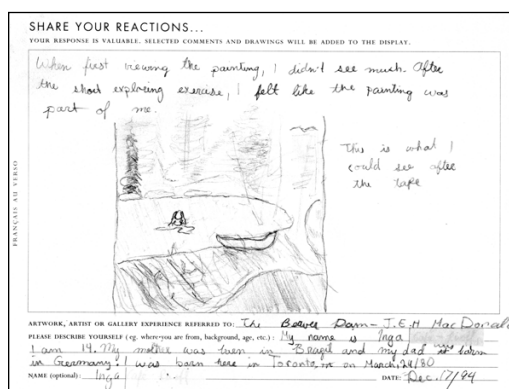


Figure 6

more personal feeling towards the painting. It became a living real world in my imagination, and I could perhaps see something of what the artist saw when he painted this scene."

Art museums usually present information about artworks and their contexts by means of wall texts, catalogues, and audio guides. While listening to an audio guide, the visitor may spend some minutes in front of an artwork while absorbing the information. Once the commentary is finished, the impulse is not to stay and let a creative engagement unfold, but to follow directions to the next audio station. The Exercise for Exploring, by contrast, allows sufficient time for the imagination to bring forth personal images and felt meanings. We were impressed by the responses of such youngsters as an eight-year-old boy who drew a portrait of himself waving hello. He said he liked "the relaxing machine" because it helped his "relaxing skill" and because he was able to "realize his feelings." An 18-year-old student from Ohio wrote that this was his first visit to an art museum. He said that the exercise allowed him to come to terms with feeling intimidated: "I imagined myself in the canoe, helpless and stranded but not scared. I was actually relaxed by scenery even though I was in a moment of helplessness. The beauty concealed my fear."

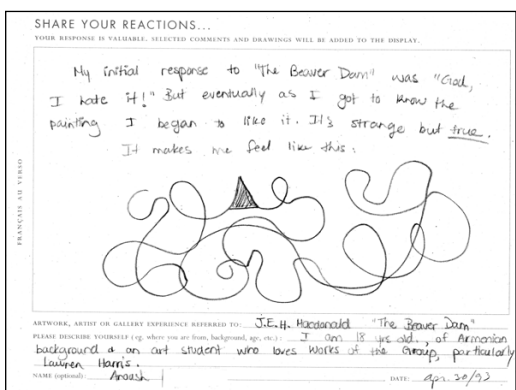


Figure 7

The program gives sufficient time for viewers to contrast their first impressions with what happened afterwards. An art student, who said that at first she hated the picture, came to like it and drew flowing lines that represented feelings of peace and freedom (figure 7).

The image of a lone canoe in a wilderness setting recalled many happy memories of camping trips. It also aroused feelings of fear, loneliness, and danger.

Those who experienced difficult feelings at the outset found that those feelings usually transformed into something more positive during the course of the exercise. A Dubliner, aged 31, described how initial feelings of loneliness and fear changed:

Deep loneliness. Scared of the water's blackness and the woods. I had a feeling of being stuck somewhere. After the exercise: Painting seemed lighter and less scary. I imagine coming out of the woods and finding a boat that I could use to play there, if I wanted or move on. The drop from the dam does not seem as sheer as it seemed when I first looked.

Feelings of fear may persist: "I sense danger lurking in the rocks and trees, a sinister presence with lots of something watching and waiting. The dam holding back the masses of water also gives the impression of something ready to pounce with great force and anger. Scary!!" The feelings may become very negative. One patron drew a large

two-pronged claw and skull and wrote: "I dislike this painting now. I saw some sinister things in the painting I had not noticed before. This skull and a claw, for example—some elements of death. The painting has changed for me. The colors, too, are sinister" (figure 8).

Visitors familiar with northern landscapes reported feelings of respect and love for nature and appreciation of the artist's work. A woman from Saskatchewan wrote:

The painting stimulates feelings of warmth, safety, joy. These are created since nature brings these feelings to me. I feel safe. I love nature and when I am close to nature I am happy, fulfilled and satisfied. It brings me close to God and love. It gives you time to think and enjoy the world we live in—free of destruction, fear, and hate. Nature brings one close to the simple things in life. The colors the artist uses are incredible. The dam that is created is very intricate and the colors blend wonderfully.

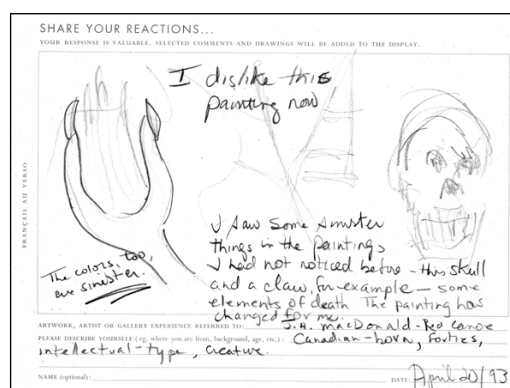


Figure 8

Activating the creative imagination may produce an intensity and depth of experience that many describe as spiritual. A woman of 50 from Britain wrote that she will never forget the "stunning exercise" that had "revealed depths of spirituality which I'd never guessed were there." A 35-year-old woman artist drew the scene with flowing biomorphic forms and wrote: "Est une oeuvre spirituelle—Une prière pour la nature" [It is a spiritual work, a prayer for nature] (figure 9). A 27-year-old graduate student wrote: "For a few minutes I was a part of the painting. I truly experienced an epiphany. I feel wonderful." A psychotherapist described the experience as one of communion:

A range of feelings and ideas that startle me!—very erotic and sensuous—a fear feeling related to that dark still water, death, cruelty—a yearning in me and tears—to touch the earth, to feel the coolness, to be held and caressed by this place. There is power and spirit in this painting that I never even glimpsed before sitting down. Communion.



Figure 9

A young woman saw herself floating blissfully in the pond: "I picture myself floating in a beautiful pond complete with peace and solitude. Free of pain & conflict . . . glo-

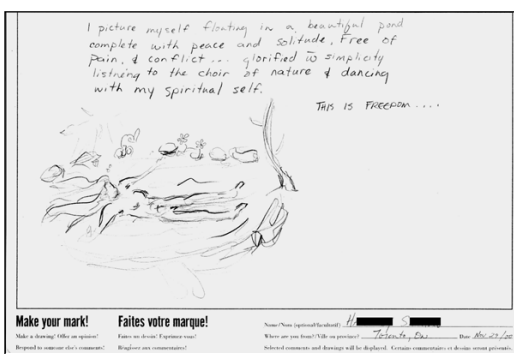


Figure 10

Enjoyed the 10 minute journey—depth of water intrigued me—painting shows clear surface/wilderness speaks to limitless depth: Darkness also called me to depth—would I discover mystery. Why do I search or probe for mystery? This painting hinted at that threshold—shape of large rock on right. I did not see it at first. It became a nude man (large person) bent over, he seemed weighed down—somehow he belonged in the heavily wooded, dark forest. Was it me?—the orange flowers held me. They are accent colors. Against the dark green of trees and water they sing of life & energy. I like that.

The education system has neglected the imagination for so long that many young people do not know that they have one. A girl of 16 wrote that she listened to all three programs and was very impressed and inspired: “I never realized I actually had an imagination!!” A professional fund-raiser of 35 described the experience as a mini-vacation: “It was such a treat to be guided without direction through the painting. By the end my imagination was creating all sorts of images. I forgot that it still works.”

With two seats set side by side, parents and children can do the program together. Youngsters often imagine climbing into the canoe, as did a girl of five who drew a picture of herself going fishing. She wrote: “I LIKE THE MUSEUM, BY ANA.” Her parent added: “Ana fishing in J. E. H. MacDonald’s canoe” (figure 11). A teacher with her nine-year-old son wrote of a “wonderful experience. We enjoyed listening to all the programs

and watching this painting. What a special idea. Thank you!” A mother with a background in art history described how she and her 14-year-old daughter responded to the exercise. The daughter added her own comment that art makes it possible to experience violence without being destructive:

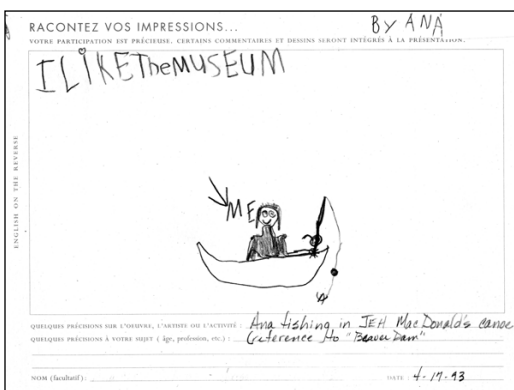


Figure 11

My daughter and I both listened to the 12 min. female commentary about MacDonald’s *The Beaver Dam*. By totally focusing on the painting, we were amazed at the

mysterious shapes, movements, and color patterns in the work. It was a thoroughly enjoyable experience, and a unique one for me—a student of Art History (a while ago!). [daughter added] ART = VIOLENCE RELEASED AND UNDAMAGING.

Teenagers' responses can be as profound as any adult's. A 13-year-old girl from Italy made two drawings. Her spelling is retained in her description of the first sketch (figure 12):

In the picture I immagined I was standing behinde that sort of looking blue and pink big fish in the background near the big green mushroom. The fish frightens me a lot but he's beautiful. The lake's water is very deep and it reflects mysterious colors. On the falls a man and a woman are lieing. They are talking, The man on the canoe is wearing a red long hat like a nightcap.

She saw many figures, some of which were frightening. As the exercise proceeded, fear turned into an experience of eros. Under the second drawing, a more abstract design, she wrote: "This is exactly how I feel. This painting makes me feel love. I feel butterflys in my stomach" (figure 13).

A 14-year-old boy did the exercise with the male voice and a second time with the female voice. He found that the female voice was more relaxing and enjoyable but that the program was worth doing twice:

The painting and exploration of the painting made me feel excited but relaxed. I imagined myself sitting on the rock near the canoe and getting off of it walking over the dam and diving into the water. . . .

Many cards report that the Exercise for Exploring is helpful for the appreciation of art. A 16-year-old girl wrote that, although she loves art, she has a hard time understanding it. And yet the exercise evoked a richly poetic interpretation:

The sense of the canoe being on the edge and how in a moment everything could change gives me a feeling of uneasiness. Two branches on the dam look like a hand reaching out at the sky. The red of the canoe is very prominent and I remember it even when I close



Figure 12

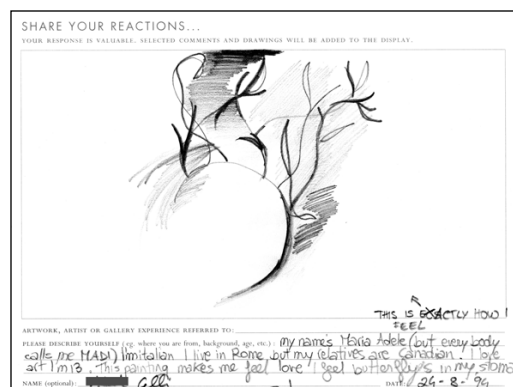


Figure 13

my eyes. The leaves follow a pattern towards the shore and it seems to lead somewhere.
It leads to the unknown.

Many visitors requested that similar exhibits be provided in other collections of the museum, as did this 19-year-old law student from England:

I sat and explored the painting of *The Beaver Dam* by Macdonald and was completely enthralled for 15 minutes. The idea of having a voice in a little booth helping you to gain a better insight into the painting is brilliant. I only wish that you could place these all over the gallery so we could explore impressionism and other contemporary work as well!

Audience research has demonstrated that many people visiting the AGO lack confidence in how to relate to artworks. The Explore a Painting in Depth facility provides a range of ways to focus on and experience artworks. A professor of civil engineering wrote that it was an excellent way to introduce a painting and thus make the museum “relevant to the uninitiated public.” He requested similar installations for each category of art in the museum. Another visitor wrote that “the battery of paintings in an art gallery can be overwhelming,” and that he forgets to concentrate because he is distracted by the surrounding pieces. “This display isolates one piece and is a provocative means of drawing the uninitiated observer (such as myself).” A visitor who described himself as lacking “expertise at analyzing paintings” found himself drawn into the creative imagination: “I feel very relaxed and find the program a useful tool for those like myself who don’t have the expertise at analyzing paintings. Throughout the program I felt myself slipping deeper, deeper into my imaginative world.”

Experienced museum-goers commented that the exercise provided them with a fresh way to view art. A 31-year-old Toronto lawyer and frequent visitor to the AGO reported that the exercise convinced him to return to the gallery often and to change his habit of browsing so that he would spend more time with individual artworks:

For one of the first times, a painting was more than just a collection of haphazard shapes and colors. The idea of closing one’s eyes when “looking” at art was an astounding one—and a phenomenal experience. After closing my eyes and imagining, then opening them, I stepped immediately into the painting, which suddenly had more depth than any high-tech hologram image. You’ve forced me to have to come back again and again to the gallery—no more of that quick touristy glance as I whiz by. Thanks so much.

Museum professionals also approved of the installation. A museum director from Michigan wrote: “Bravo! As a museum director, I have a (bad) habit of racing through art museums, taking in as much as I can in a short amount of time. Thank you for inviting me to slow down, and relish a single work. Brilliant installation.”

Artists commended the program as an effective means of facilitating the creative process with an artwork. A visitor who described herself as a Swiss-Canadian artist living

in Toronto said: "This explore-the-painting-in-depth was for me an incredible experience." An art major from Denver working in the medical field said that the exercise "will make me a smarter artist. . . . This has given me more respect and inner self worth for art appreciation." A retired landscape painter said that the program let him to experience "what the artist saw." An artist in computer graphics likened the exercise to a "Zen viewing experience." A woman artist who wrote that it was "an excellent enhancement to viewing and feeling the painting," liked the choice of male and female voices, "as gender (authority) affects view and value of painting."

Artists who make drawings do not always indicate whether they listened to the Exercise for Exploring. When the sketch is from an original point of view, we suppose that they did the exercise. A 29-year-old engineer from Thailand drew the scene from the left side of the picture (figure 14). Another artist evidently listened to the curator's talk before doing the Exercise for Exploring. The curator's talk mentions that the canvas is possibly a memorial to the brilliant young painter Tom Thomson, who died in a mysterious canoeing accident in Algonquin Park two years before MacDonald painted *The Beaver Dam*. She titled the drawing *Tom Thomson's Canoe. The Capsize* (figure 15).

Art teachers indicate that they will adapt the exercise for their own students. A woman teacher from British Columbia wrote: "You brought the painting ALIVE! What a wonderful moment I had sharing the voice guided journey and respite from DOWNTOWN. My 10 minutes communing with the painting will be with me always. A valuable exercise I will share with my students. Thank you!!!" (figure 16).

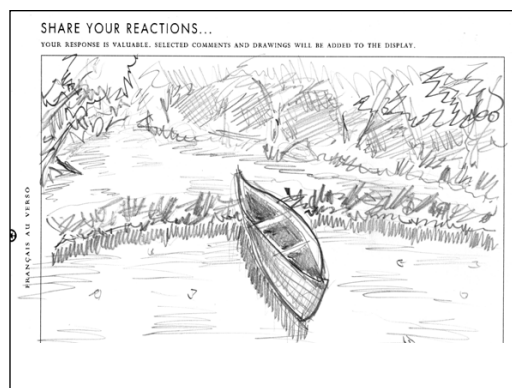


Figure 14

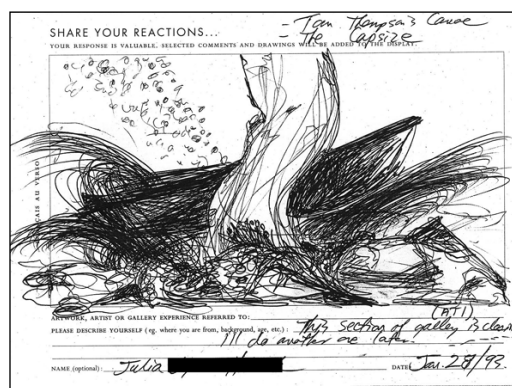


Figure 15

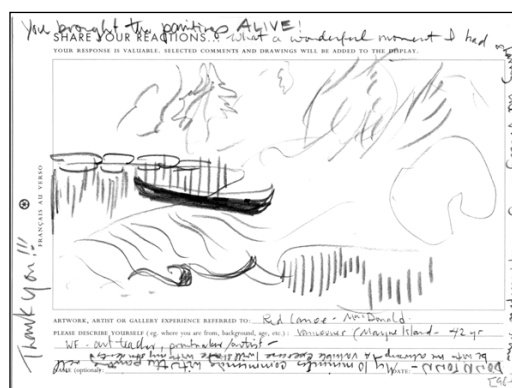


Figure 16

DISCUSSION

Creative Viewing—This anecdotal survey of responses to *Explore a Painting in Depth* supports the proposition that facilitating an imaginative engagement with an artwork results in meaningful and memorable aesthetic experiences for a broad range of the visitor population. Youngsters, teenagers, adults, and seniors from many walks of life, educational backgrounds, and nationalities attested that the program was most helpful in introducing them to a new and fascinating method for viewing an artwork. A substantial number of cards indicated that the program for creative viewing evoked a heightened sense of authentic presence, felt meaning, well-being, and even transcendence. Many closed with expressions of thanks for the program. New museum-goers who felt like novices in art appreciation said that the program gave them confidence in how to approach art, while museum professionals applauded it as a bold and important initiative. The program demonstrated to visitors that there are other ways to experience art than browsing through a gallery. A canvas that would attract only a few seconds of a visitor's time when hung in a room with 30 artworks generated a remarkable depth, range, and intensity of meanings. Many of those who did the program had the kind of aesthetic experience that Dewey described as "a new birth." Gratitude for such experiences translated into a heightened sense of the relevance of the museum to the needs of the community at large.

The effects of the program indicate that there is an urgent need for art institutions to take a more proactive role in educating the public imagination. Forty years ago, the Canadian literary scholar and educator Northrop Frye argued that an educated imagination is a necessity for all citizens of a free society (1963). He was in tune with the hermeneutic philosophy of Gaston Bachelard, Paul Ricoeur, and Hans-Georg Gadamer, but it was the era of the Cold War, structuralism, behaviorism, and cognitive science. Educators who focused on cognitive development and critical thinking viewed the symbolic thinking of children as a passing phase on the way to mature thought, which, they believed, should be relatively free of symbolic representations.

A revolution in neuroscience during the last two decades has replaced the computational theory of mind with evidence that thought is a flow of images involving the whole organism—body, mind, and spirit (Edelman 2000; Damasio 1999; 2003). Research with functional magnetic resonance imaging (fMRI) is demonstrating that the willful act of forming a mental image of an object with the eyes closed (the basis for the *Exercise for Exploring*) selectively activates the same place in the brain as seeing that object with the eyes open (Schwartz and Begley 2002, 336). Furthermore, the information reaching the brain from the outside world is conditioned by the degree to which the viewer is disposed to accept it. That is, receptiveness is determined by the mental state of the viewer: "Mental states contribute to the final perception even more powerfully than the stimulus itself" (Schwartz and Begley 2002, 337). Thus a museum exhibit that serves to increase the receptivity of the viewer will substantially affect the viewer's experience of the artwork.

The intent was to scan the cards into a computer that visitors could then consult and in this way share their experience with others. A further step in reciprocating would have been to respond to those visitors who left their names and addresses and requested

further information about the exhibit or volunteered to assist with the program. The exhibit demonstrated that engaging visitors in a creative viewing experience is an added benefit to the interpretive resources of the museum.

Implications for the AGO and other museums—The impact of the Exercise for Exploring, after 10 years at the AGO, has been surprisingly small. There is general acknowledgement among the staff, including curatorial, that the facility has been successful, but similar facilities have not been developed for use in other exhibition areas. There are tentative plans within the Canadian Art Department to develop the concept for an expansion of the building that will open in 2008. At present, the authors know of only one other art museum that has integrated this type of audio program into permanent collection galleries—the Museum London, of London, Ontario.

For such a program to achieve wider application, it is necessary for museums to include the facilitation of constructed meanings as a criterion of success. The usual criteria are attendance figures, revenue, and critical kudos. Systematic, in-depth research into the quality and nature of visitor experiences is seldom undertaken, with the results integrated into the planning process. In fact, public program planning continues to be largely geared to institutional “outputs” (exhibits, lectures, and so on) rather than visitor “outcomes.” Until there is a switch to outcomes-based approaches to museum programming, with performance indicators related to the quality of individual experiences and impacts on communities, there is little impetus for institutions to adopt viewer-centered, inner-directed approaches such as the Exercise for Exploring.

To design exhibits for the creative viewing of various genres of artwork, several things are needed: 1) Research into modes of delivery in different settings. 2) Follow-up studies on the transfer effect, namely, whether visitors can practice creative viewing techniques on their own, or whether they need further reinforcement. 3) Protocols for documenting and cataloging responses—protocols that respond to demands for qualitative as well as quantitative analysis. 4) Attention to the fact that aesthetic experience is not merely about contemplating artworks but is about the emergence of mind (Eisner 2002). 5) Programs that train staff and docents to act as guides to creative processes in both gallery and studio settings.

In the case of one such training program, which has been successfully adapted for middle and high school grade levels, students are brought to a local art center where they are given the exercise for exploring while viewing a self-selected artwork. Based on that experience, they go to an art studio and make an original artwork with oil pastels and paper. They take their pictures back into the gallery and—in small groups led by artist-teachers—compare and contrast their pictures with the works they viewed. Then they do another reflective exercise for exploring, using the image they made in the studio. Next, they make a second picture. The day-long program ends when they view their two pictures together within their groups. They discover that taking the creative process through a second phase produces a picture that is more original and focused in content and design—a picture they are proud of (Clarkson 2003, 69–72). Museums with studio facilities could readily adapt the creative viewing program in this way.

CONCLUSION

Perhaps the most significant outcome of this experiment for the team that developed *Explore a Painting in Depth* is increased respect for the extraordinary creativity of visitors to the museum. The exhibit has demonstrated that, while artists enhance human experience with their works, and scholars and critics increase our knowledge and understanding of art, the viewing public at large plays a vital role in affirming the meaning of art in the community as a whole. As Picasso said, the experience of successive generations of viewers is essential to the life of the work of art. Indeed, the inventory of cards constitutes a remarkable diary of a decade in the life of MacDonald's painting *The Beaver Dam*. The cards further indicate that by facilitating and respecting the aesthetic experience of viewers at large, the museum is regarded by the public as having greater relevance for the community. The exhibit provides one possible model for enhancing the creative responses of viewers and for valuing their experiences. It is hoped that museums will soon expand their traditional roles as conservators and purveyors of expert, discipline-based knowledge in order to explore the untapped potential of the creativity of viewers.

REFERENCES

- Arendt, H. 1978. *Thinking: The Life of the Mind*. Vol. 1. New York: Harcourt.
- Arieti, S. 1976. *Creativity: The Magic Synthesis*. New York: Basic Books.
- Clarkson, A. 1995. The sounds of dry paint: Animating the imagination in a gallery of art. *Musicworks* 63 (Fall): 20–27.
- . 2003. A curriculum for the creative imagination. In *Creativity and Music Education*, T. Sullivan and L. Willingham, eds., 52–76. Toronto: Canadian Music Educators' Association.
- . 2004. Rumo a um currículo que privilegie a imaginação criativa. *Pro-Posições, Revista Quardrimestral da Faculdade de Educação-Unicamp, Brasil* 15 (1): 97–119.
- . 2005. Educating the creative imagination: A course design and its consequences. *Jung: The e-Journal of the Jungian Society for Scholarly Studies* 1 (2). <http://www.thejungiansociety.org/Jung%20Society/e-journal/Volume-1/Clarkson-2005.html>.
- Csikszentmihalyi, M. 1990. *Flow: The Psychology of Optimal Experience*. New York: Harper and Row.
- Damasio, A. 1999. *The Feeling of What Happens: Body and Emotion in the Making of Consciousness*. New York: Harcourt.
- . 2003. *Looking for Spinoza: Joy, Sorrow, and the Feeling Brain*. New York: Harcourt.
- Dewey, J. 1934/1958. *Art as Experience*. New York: Capricorn Books.
- Edelman, G. 2000. *A Universe of Consciousness: How Matter Becomes Imagination*. New York: Basic Books.

- Eisner, E. W. 2002. *The Arts and the Creation of Mind*. New Haven: Yale University Press.
- Falk, J. and L. Dierking. 1992. *The Museum Experience*. Washington, DC: Whalesback Books.
- . 2000. *Learning from Museums: Visitor Experiences and the Making of Meaning*. Walnut Creek: AltaMira Press.
- Frye, N. 1963. *The Educated Imagination*. Toronto: CBC Publications.
- Heidegger, G. W. F. 1959. *Discourse on Thinking*. New York: Harper and Row.
- Hein, G. E. 1998. *Learning in the Museum*. London: Routledge.
- . 2002. The challenge of constructivist teaching. In *Passion and Pedagogy: Relation, Creation, and Transformation in Teaching*, E. Mirochnik and D. C. Sherman, eds., 197–214. New York: Peter Lang.
- Hunt, H. T. 1995. *On the Nature of Consciousness: Cognitive, Phenomenological, and Transpersonal Perspectives*. New Haven: Yale University Press.
- Jung, C. G. 1916/1960. The transcendent function. In *Collected Works of C. G. Jung, Volume VIII: The Structure and Dynamics of the Psyche*. Princeton: Princeton University Press.
- . 1928/1970. The relations between the ego and the unconscious. In *Collected Works of C.G. Jung, Volume VII: Two Essays on Analytical Psychology*. Princeton: Princeton University Press.
- . 1921/1971. Psychological type. In *Collected Works of C.G. Jung, Volume VI: Psychological Types*. Princeton: Princeton University Press.
- Klee, P. 1961. *The Thinking Eye*. J. Spiller, ed., R. Manheim, trans. New York: George Wittenborn.
- Langer, S. 1942. *Philosophy in a New Key*. Cambridge: Harvard University Press.
- Maslow, A. 1962. *Toward a Psychology of Being*. Princeton: Van Nostrand.
- Schwartz, J. M., and S. Begley. 2002. *The Mind and the Brain: Neuroplasticity and the Power of Mental Force*. New York: Regan Books.
- Silverman, L. 1990. Of us and other things. Unpublished dissertation.
- . 1993. Making meaning together: Lessons from the field of American history. *Journal of Museum Education* 18 (3): 7–11.
- . 1995. Visitor meaning-making in museums for a new age. *Curator: The Museum Journal* 38 (3): 161–170.
- Stevens, A. 1995. *Private Myths: Dreams and Dreaming*. Cambridge: Harvard University Press.
- Wallas, G. 1926. *The Art of Thought*. London: Jonathan Cape.
- Weil, S. 2002. *Making Museums Matter*. Washington: Smithsonian Institution Press.
- Worts, D. 1989. Shaking the foundations: Recent audience research at the Art Gallery of Ontario. *Audience Research: Theory into Practice, Part 2*. Proceedings of the 1989 Visitor Studies Conference, Dearborn, Michigan.
- . 1990. “Enhancing” exhibition: Experimenting with visitor-centered experiences at the Art Gallery of Ontario. *Visitor Studies: Theory, Research and Practice—Volume 3*. Proceedings of the 1990 Visitor Studies Conference, Jacksonville, Alabama.

- . 1995. Extending the frame: Forging a new partnership with the public. In *Art in Museums*, Susan Pierce, ed., 165–191. London: Athlone Press.
- . 2003. On the brink of irrelevance? Art museums in contemporary society. In *Researching Visual Arts Education in Museums and Galleries: An International Reader*, L. Tickle and M. Xanthoudaki, eds. Dordrecht: Kluwer Publishers.
- . 2004a. Museums and their role in creating a culture of sustainability. *WestMuse: Journal of Western Museums Association* (summer): 13–15.
- . 2004b. Museums in search of a sustainable future. In *Alberta Museums Review: Journal of Museums Alberta* 30 (fall): 40–57.
- Zervos, C. 1935. Conversation avec Picasso. *Cahiers D'Art* (Paris).