

School Outreach and Museum-Architect Partnerships:  
An Initiative at the Canadian Centre for Architecture

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## ABSTRACT

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This thesis focuses on an educational partnership between the Canadian Centre for Architecture and Architects in Action, which explores the potential of utilizing professional arts practitioners in an outreach capacity to extend museum programming. It seeks to answer the following questions: How did the architects' experiences compare to their expectations, and what are the benefits and challenges to using architects as facilitators of post-visit museum activities within the classroom setting? A series of architect interviews, teacher surveys, and classroom observations were conducted and analyzed in order to gain insight into the strengths and weaknesses of the educational partnership and to ascertain how such partnerships can be improved. The findings generated by this study were used as a basis for the development of a series of recommendations intended to contribute to the improvement of practice within similar educational projects.

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## CHAPTER 1

### Introduction

#### *Introduction to the Research Question*

This thesis focuses on an educational partnership between the Canadian Centre for Architecture (CCA) and *Architects in Action* a group of volunteer architects, intern architects and architecture students who share the CCA's commitment to architecture and built environment education. The *Graphic-Map Project*, which resulted from this partnership, was piloted by the CCA across elementary schools in Montreal during the 2005-2006 academic year in response to a lack of sound built environment education within the public school system. The project was developed in conjunction with the *Sense of the City* exhibit, which emphasized a sensorial approach to architecture, and incorporated architect-facilitated post-visit activities into classroom practice. Through outreach and collaboration, the project sought to broaden students' understandings of architecture and support teachers in integrating museum education within the curriculum.

This thesis explores the potential of developing educational partnerships between museum educators and professionals in the community for the provision of school-oriented museum programs. The thesis will seek to answer the following questions: How did the architects' experiences compare to their expectations, and what were the benefits and challenges of utilizing local architects in an outreach capacity to extend museum-based educational programming?

### ***About the Architects in Action***

In 2005, Architects in Action was founded as an organized group of volunteer architects with a shared commitment to improve the status of architectural education in schools. The original members of Architects in Action included one architect (Jessica Gutwein) and two architect interns (Jerzy Elzanowski and Marianne Leroux).

A licensed architect in the State of Pennsylvania, Jessica has worked for most of her career in New York City and Philadelphia where she became involved in the *Architecture in Education* program (AIE) as a teaching-architect. Upon moving to Montreal, Jessica contacted the CCA in order to discuss the possibility of introducing a similar program into the public school system through the museum. Jerzy Elzanowski is an intern architect and holds a B.Sc. in Architecture as well as a Masters of Architecture from McGill University. Marianne Leroux, who works in the field of historical preservation, also holds a B.Sc. in Architecture and a Masters in Architecture from McGill.

Since its inception, Architects in Action has expanded to include an ever-growing number of volunteers from the architectural community. By working with students in the classroom the architects hope to achieve a number of objectives. First, to provide an outlet for students' creativity. Second, to expose students to new ways of experiencing and participating in their built environment. Third, to promote students' interest in architecture and understanding of its impact on the world. Fourth, to promote students' understanding of architecture as an interdisciplinary practice that relies on problem

solving. Fifth, to help create more sensitive future citizens who value architecture and are considerate of the built environment.

### ***About the CCA***

The Canadian Centre for Architecture, founded in 1979, is an international research centre and museum in the heart of Montreal devoted to “advancing knowledge, promoting public understanding, and widening thought and debate on the art of architecture, its history, theory, practice, and role in society today” (CCA, Institutional Mission, 2006, para. 2). It hosts an extensive collection that is international in scope and dates back to the renaissance. The collection has four components: Prints and Drawings, Photographs, Archives and Library. The Prints and Drawings collection comprises of 100 000 works that record the development of concepts in architecture from the late fifteenth century to the present. The Photography collection, established in 1974, contains 55 000 images documenting the photographic representation of architecture around the world from 1839 to the present day. The Archives collection, which begun in 1981, focuses on collecting resource materials from significant individuals and firms and consists of more than 130 archives. Last but not least, the Library includes 200 000 books and 4875 periodicals that focus on the history of architecture and date to the fifteenth century (CCA, Collection, 2006).

Central to the educational mission of the CCA is the conviction that architecture is a public concern. As such, the Public and Educational Programs department seeks to: “provoke discussion and debate and to engage the public actively in issues relating to the



role of architecture in society” (CCA, Educational Mission, 2006, para. 1). To achieve these goals, the department offers a wide range of programs including school and family programs, guided tours, gallery talks, colloquia, public lectures, and film screenings in addition to the ‘Visiting Scholars Program’ for postdoctoral scholars in architecture (CCA, Public and Educational Programs, 2006). School programs, specifically, include both permanent programs and exhibition specific programs of the in-reach, out-reach and multi-visit variety. Among their strengths, is the CCA’s history of collaborating with various local professionals and organizations in the delivery of museum objectives.

### ***An Educational Partnership***

The educational partnership between the CCA and the Architects in Action, initiated by Jessica Gutwein in 2005, is described by Kanter et al. (cited in Mtembu, 2002) as an opportunistic alliance consisting of organizations that join together to undertake a venture to a greater extent than they could individually. Within this joint venture, the CCA served primarily as a network to connect the Architects in Action with partnering schools in the community, while the Architects in Action provided the human resources needed to extend the museum’s programs beyond its walls. This allowed each to maintain an independent identity while working towards achieving mutual goals.

Having established a partnership, the two parties began to work towards developing a general program outline. Once fundamentals were decided upon, the participants’ roles were defined and responsibilities delegated. While the CCA assumed responsibility for

the pre-visit and in-visit activities, the Architects in Action were given the task of developing and implementing the post-visit activity.

During the planning phase of the project, in an effort to represent each student in the final student exhibition at the CCA, the Education Department decided that the post-visit activity needed to be of a collaborative nature and involve a map. Working within these guidelines, the Architects in Action developed the Graphic-Map Project, which was designed to not only stress cooperative and social learning but also to reflect the working practices of the architectural profession: “the whole point of teaching something about design is that it is a group effort” (J. Elzanowski, personal interview, April 29, 2006).

### ***Sense of the City: The Exhibition and Concurrent Educational Programming***

The Sense of the City exhibition, organized by the CCA, was presented from October 25th, 2005 to September 10th, 2006. In keeping with the CCA’s thematic exhibition structure, Sense of the City was “a major exhibition dedicated to the theme of urban phenomena and perceptions that have traditionally been ignored, repressed, or maligned; challenging the dominance of the visual in the urban environment” (CCA, Sense Of the City, 2006, para. 1). Using this ‘sensorial’ approach to the presentation of architecture, which examined previously unexplored senses such as the sense of smell and touch, the CCA aimed at expanding visitors’ understanding of the impact that the senses have on forming impressions of place. The exhibit was presented in five sections: *nocturnal city, seasonal city, sound of the city, surface of the city, and air of the city*. The

materials presented within these sections included drawings, photographs, artifacts, maps, models, installations, videotapes, projections, recorded sounds, and odors (Zardini, 2005).

The Architects in Action's Graphic-Map Project was intended to reinforce and extend the concepts presented in this exhibition, and functioned as the follow-up to *Hear, Touch and Smell the City* (CCA, Architectura, 2006), the CCA's multi-part Sense of the City programming. The Hear, Touch and Smell the City program offered a series of activities at the museum, in the classroom, and around the city. These activities included an orientation session for teachers, classroom visits by musician and songwriter Annie Savage, a pre-visit teacher-led activity, in-class experiments with museum educators, an exhibition tour, a city tour, and the architect-facilitated post-visit activity, culminating in an exhibition of student work.

The Hear, Touch and Smell the City program began with classroom visits by musician and songwriter Annie Savage who, in a series of classroom visits, worked with students to produce a song that captured their experience of urban living. The teacher-orientation session aimed to introduce teachers to the museum's exhibition and related educational programming and included an architect-led presentation about the Graphic-Map Project. The pre-visit activity was made available to teachers in the form of a written document, introducing them to the exhibition content and inviting teachers to take their students on a sensorial tour of their school in preparation for the activities to follow. Museum educators then visited classrooms with a kit that introduced students to the senses through hands-on experiments. At the museum, students had the opportunity to take a guided tour of the exhibition and create a model of an urban environment. The

Hear, Touch and Smell the City program continued with a tour of the city. Accompanied by an *Urbanist* [an urban planner and member of the Ordre des Urbanistes du Québec (OUQ)], students visited various architectural sites in Old Montreal and China Town where they were responsible for documenting their sensorial impressions in a variety of ways, including texture rubbings.

The architect-facilitated post-visit activity (Graphic-Map Project) drew on students' sensorial experiences during their city tour and engaged students in graphically representing the information they gathered with the Urbanists in the form of a map. The Graphic-Map Project is a collaborative project consisting of three parts: a *memory-map*, an *odor-graph*, and a *sound-map*. The memory-map component of the project involved students in creating a collage of their experiences using photocopies of the architectural sites they had visited, drawings based on their recollections, and their personal written reflections. In the odor-graph component of the project, students participated in creating a graph of the smells they associated with particular architectural sites on their visit using multi-colored strips of construction paper. Differing colors were used to represent students' emotional responses to the smells of various urban locations, whereas differing widths and lengths were used to represent variations in the odors' intensity. Students were asked to choose a dominant color band upon which they layered secondary strips of varying colors and sizes. Students were then encouraged to elaborate upon their color bands with words and drawings resulting in a visual representation of their olfactory experiences. The sound map component of the project involved students in finding onomatopoeia, such as 'boom' or 'beep', to describe their auditory experiences of

particular stops on their city tour. The individual maps were then assembled together into a visual representation of three different sites from the students' tour with the Urbanists. The work which resulted from the Hear, Touch and Smell the City program was presented at the CCA in an exhibition, of the same name, and gave students the opportunity to discover how their peers interpreted Montreal through the senses.

### ***Personal Significance of the Research***

My thesis topic emerged directly out of an internship that I completed at the Canadian Centre for Architecture in the summer of 2005. During the month of June, I assisted the education team at the CCA with the development of educational activities in relation to the upcoming, Sense of the City, exhibition. I was involved in pre-planning meetings and compiled research on the sense-experiments that museum educators later conducted in schools.

It was here that I first met Jessica Gutwein and was introduced to the role the Architects in Action would play in the CCA's Hear, Touch and Smell the City program. Their participation demonstrated innovation in programming and the potential to not only enhance the curriculum but also support teachers to extend the museum experience into their classrooms. It was the latter potential outcome that particularly excited me about witnessing this project's evolution.

As a teacher I had a range of experiences with museums, including pre-service and in-service teacher-training workshops, as well as organizing museum field trips for my students and integrating various museum resources into my curriculum. First-hand

classroom experience has informed my understandings of the factors that impede teachers from following up on the museum visit, and gave me the desire to explore educational strategies that can assist them in this effort.

For these reasons, I felt the need for an assessment of the project and sought permission to track its progress. My research interest, therefore, reflects both my academic and professional experiences and is of personal significance to myself as both a museum educator, and teacher.

### ***Significance for Art Education and Society***

The Architects in Action's Graphic-Map Project has the potential to generate student interest in advocating a high quality built environment, and serves as a model for the field of both art education and museum education.

Despite the rapid urbanization of Canada, and the fact that the built environment affects all of us, the general public has not yet developed an understanding that they live in a dynamic and mutable environment in which they can potentially have a voice.

Avery (1989) argues that effective participation in the built environment will require widespread education about it. In order to ensure a positive future for our cities, therefore, it is imperative that we educate young people, who rarely have a voice in the construction of their environment (Driskell, 2002), to become more informed and better prepared to participate in their evolution,

As it stands, however, the study of architecture and the built environment is not adequately addressed in the school curriculum (King-McFee, 1999) nor are teachers

comfortable teaching it (Rojek-Olsen, 1989). Museums, such as the CCA, are in an ideal position to augment the curriculum with programs that draw on the expertise of professional architects.

Current research indicates that in addition to providing programs, museums need to support teachers in extending these programs to the classroom. The educational partnership between the CCA and the Architects in Action, therefore, has the potential to not only better prepare students to participate in environmental decision-making (Avery, 1989) by broadening their architectural education, but also to increase a museum program's effectiveness by supporting teachers with the implementation of museum activities. While educational partnerships in general are becoming increasingly important, the lack of current research on this topic emphasizes the significance of this study for guiding the future development of similar initiatives.

## CHAPTER 2

### Review of Literature and Projects Related to Content

Three specific areas of discussion have been identified as relevant to this thesis: 1) Supporting Teachers to Integrate Museum Learning into the Classroom, 2) Architecture and Built Environment Education, and 3) Projects Related to Content.

#### *Supporting Teachers to Integrate Museum Learning into the Classroom*

Towards the latter part of the 20<sup>th</sup> century, museums gained increased recognition as educational institutions with the potential to offer access to what King (1998) refers to as ‘authentic’ artifacts and, through this access, learning opportunities that could not be offered in any other learning environment. Such learning opportunities are especially important to school education:

The educational potential of original objects in developing skills, knowledge and understanding through processes of personal discovery and meaning-making sees museums and galleries as fundamental resources for supporting and complementing multi-disciplinary school teaching (Xanthoudaki et al. 2003, p.8).

Museum education departments have long catered programs to school audiences. Within the last twenty years, those programs have seen considerable improvement through the creation of preparatory and follow-up activities (Walsh-Piper and Berk, 1994). According to Hooper-Greenhill (1991), school-oriented museum programs should incorporate a three-part framework (pre-visit, in-visit, post-visit) in which classroom



activities that follow the museum visit are an integral component in what is seen as a continuous educational process that begins and ends in the classroom.

Recent research by Michel Allard (1992) suggests that the degree of educational impact that a museum program has on students depends upon whether or not it is followed-up on in the classroom:

We have noted that students who participated in educational programs that included a follow-up phase to the museum visit made better progress in terms of both cognitive skills and attitudes toward the museum than those who took part in programs with no follow-up component (Allard, 1992 p.4).

Despite being advocated by numerous scholars (Allard, 1992; Falk and Dierking, 1992; Hooper-Greenhill, 1991; Mascheroni, 2003; Stevens, 1997) as necessary to the reinforcement of the museum visit and to the provision of a smooth transition back to the classroom routine, the report *Museums For a New Century* (Commission on Museums for a New Century 1984) noted that teachers rarely conducted follow-up activities upon their return to the classroom. Hooper-Greenhill (1991) argues that restricting the museum experience to the visit alone without extending it to the classroom minimizes its educational value: “It is essential that the experiences of the visit are recalled, discussed, evaluated and responded to back in the classroom, otherwise much of the value will be lost” (p.120).

This gap between the museum and the school signifies the need to better support teachers in ensuring continuity between these two educational settings: “perhaps one of the most important kinds of support needed is assistance in incorporating the art museum into the classroom” (Stone, 1992, p. 81). Most teachers, however, are not prepared to

conduct follow-up activities with their students, let alone connect the museum visit to the curriculum, as few are confident that they have received sufficient exposure in the arts or adequate training in the use of museum resources. Deniston-Trochta (2001) speaks to this notion when she says: “A classroom teacher, already beleaguered with responsibilities, is not going to freely engage in activities in which she/he has the least confidence” (p.99).

Wan-Chen Liu (2000) argues that in order to play an active role in school-oriented museum education, teachers need not only willingness but also skills and knowledge. Teacher-oriented museum programs, pre-service teacher-training, and ‘special projects’ between teachers and museum educators have been identified in the literature as three support strategies that can increase teachers’ efficacy in the use of museum resources. Next, I review the logistical obstacles inherent in these three strategies and propose an alternative, or ‘complementary’, strategy.

### ***Teacher-Oriented Museum Programs***

The majority of museums offer a variety of in-service professional development opportunities to assist teachers in using the museum as a resource for their students. These opportunities include artist talks, panel discussions, exhibition tours, exhibition orientation sessions that coincide with pedagogical days, and credited teacher institutes. The Teacher Institute at the National Gallery in Washington, D.C. is one example. This week-long institute offers teachers the opportunity to learn in the museum setting and includes model-teaching sessions (Walsh-Piper and Berk, 1994).

Such programs are based on the premise that teachers who have first-hand experience with museum collections will feel much more comfortable about introducing them, and the concepts behind them, to their classes. Pitman-Gelles (1981) further rationalizes that teachers who are trained to use museum exhibits and materials can not only more effectively engage their classes in pre and post-visit activities but also develop their own programs or extend existing ones due to their involvement with students for the duration of a full academic year.

Despite the availability of the aforementioned programs, their potential benefits, and teachers' perceptions of their art cognizance as inadequate, these efforts "haven't been as influential as anticipated," says Denise Lauzier Stone (1996, p. 84). In a national survey conducted by the author in 1993, few teachers said that they had participated in teacher-oriented museum programs (Stone, 1996). Furthermore, teacher participation in these programs does not necessarily translate into practice when teachers return to their classrooms. Evaluations of the Teacher Institute at the National Gallery in Washington, D.C. have demonstrated that although the institute has had a positive effect on teachers' attitudes towards art, "some of the teachers who attend the institute may never include art in their teaching yet recognize that learning about art is an important part of their own development" (Walsh-Piper and Berk, 1994 p. 20).

These findings indicate that there is a discrepancy between being an enthusiastic program participant and feeling comfortable as a facilitator of museum activities (Remer, 1996). Therefore, "although museum in-service training is making an important contribution to the professional development of teachers, it will take changes in pre-

service education to produce museum-wise teachers who understand the centrality of museums in art education” argues Stone (1996, p.86).

### ***Pre-Service Teacher-Training***

Numerous scholars (Deniston-Trochta, 2001; Stone, 1996; Xanthoudaki et al., 2003; Zeller, 1987) advocate that pre-service education coursework should better prepare prospective teachers not only to teach art but also to directly utilize the museum in their instruction.

As it stands, however, teacher-training programs fail on both accounts. In *Teacher Training: A Wrinkle in Time*, Deniston-Trochta (2001) addresses what she calls “the relative absence of art in the education of classroom teachers” (p. 96). Where arts methods courses were included in pre-service teachers’ coursework, they were usually limited to a single course - often offered as an elective. As such, even when pre-service teachers excelled in these classes, the courses did not adequately influence pre-service teachers to later structure art into their curricula - a phenomenon the author refers to as ‘lack of transference’. Kowalchuk and Stone (2000), who conducted research into elementary teachers’ art education preparation, observed similar results: “apparently, the typical content of elementary education art methods courses does not convince elementary teachers to place a high emphasis on later art instruction (p. 38). Given these findings, it is unsurprising that teachers perceive their art education preparation as inadequate (Denton 1998; Nelson, 1996). Because teachers’ comfort levels with art instruction bear on whether or not they follow the museum visit with post-visit activities,

there is a need for an increase in mandatory art methods courses at the pre-service level as “pre-service teachers can not be expected to become proficient in arts instruction in one semester” (Deniston-Trochta, 2001, p. 99).

Similarly, integrating museum resources into classroom instruction is not addressed in pre-service teacher education (Stone, 1996; Zeller, 1987). It is, thus, not surprising that teachers, including art teachers, admit to feeling inadequately prepared to use them or to connect the museum visit to other areas of the curriculum.

In an attempt to improve teacher-training programs, Denise Lauzier Stone (1996) surveyed teachers as to how their pre-service education coursework could have better prepared them to use the museum as a learning tool for their students. Based on respondents’ remarks, the author suggests that pre-service teacher training programs should ideally provide prospective teachers with practical experience through an internship or practicum within the museum setting. This internship should provide prospective teachers with first-hand experience in the development and implementation of pre-visit, in-visit and post-visit activities.

The creation of pre-service teacher training programs that adequately prepare elementary teachers to teach art and use museum resources would necessitate reforming the educational system. The lack follow-up to museum visits and failure to integrate the museum experience into the curriculum is likely to continue, with the rare exception of teachers that are trained in art and museum use (Stone, 1996).

### ***Special Projects***

The third strategy identified in the literature as a means of increasing teachers' efficacy in the use of museum resources involves 'special projects' between teachers and museum educators. Special projects are extended programs tailored to the particular needs of classroom teachers and their students, designed collaboratively between teachers and museum educators. One example of such a program is the Museum School at the Glenbow Museum (Glenbow Museum, 2006, para. 4) in which teachers collaborate with museum educators to develop a week-long program focusing on curricular themes of the teachers' suggestion.

In Canada, special projects remain prototypes, more than archetypes. Despite the fact that many museum professionals are eager to work with teachers collaboratively (Commission on Museums for a New Century, 1984), Eisner and Dobbs' 1994 report, *The Uncertain Profession: Observations on the State of Museum Education in Twenty American art Museums*, indicated that teachers who collaborate with museum educators to design programs tailored to their specific needs are atypical. This finding is further supported by Denise Lauzier Stone's 1992 study into teachers' utilization of the art museum, which revealed that teachers did not usually request museum programs that involved planning or integration into the curriculum, preferring the traditional tour instead. This phenomenon can be attributed to the fact that such initiatives are time consuming, complicated and therefore difficult to justify (Prabhu, 1982; Remer, 1996; Stevens, 1997; Stone, 1992):

The process of establishing and building cooperative relationships is a lengthy process requiring commitment in terms of time. Classroom teachers as a group have little time for their responsibilities and have less time for additional tasks. In considering the reality of the classroom situation, teachers most likely will not pursue relationships with museums (Stone, 1986, p. 201).

### ***Facilitated Post-Visit Activities***

The aforementioned obstacles indicate a need for an alternative, or ‘complementary’, strategy. The Graphic-Map Project provides just such an alternative. If teachers are to follow-up on the museum experience, they must be supported in this effort. Facilitated museum activities have the potential to support teachers in delivering museum objectives without the lengthy time commitment demanded by both teacher-oriented museum programs and special projects. In addition to offering direct support with the implementation of post-visit museum activities, the Graphic-Map Project has the potential to simultaneously provide teachers with professional development. Working alongside the architects, teachers develop an appreciation for the role of architecture in the curriculum and new ideas for integrating architecture into their teaching units: “After the teachers have been shown how to use the built environment as a teaching tool, they begin to develop their own curriculum materials and activities for use in their classrooms” (Graves, 1990, para. 9). Involvement in the Graphic-Map Project can be beneficial for architects as well by allowing them to affect a positive influence on the future built environment through their active involvement in the education of young people.

Furthermore, Stone (1986) argues that closer relationships between museums and professionals in the community are beneficial for museums. Educational partnerships can increase a museum program's effectiveness and assist museums in fulfilling their missions by attaining their public education goals. Therefore, utilizing practicing architects in an outreach capacity to facilitate museum activities, offers the CCA a practical strategy to ensure continuity between the museum visit and the classroom. By experimenting with such strategies, museum educators can develop new models for reinforcing the museum visit while reaching out to a future museum audience.

### ***Architecture and Built Environment Education***

The built environment, roughly defined as “every physical space that has been planned, designed and constructed” (Avery, 1989, p. 53), affects all of us and contributes to peoples' physical and mental well-being. Despite this, most members of the general public lack knowledge of the built environment and are thus unable to improve upon its quality: “professionals in architecture and design, for example, have reported that the public seems unable to tap their expertise to assist in the remediation of built environment deficiencies” (Graves, 1990, para. 4).

The American Institute of Architects (AIA) formed a focus committee to look for a solution this problem. The committee recommends that one necessary solution to the knowledge gap is to integrate the study of architecture and the built environment into the public school curriculum (Sandler, 1988). This recommendation supports Avery's (1989) assertion that one way of positively influencing the future of our built environment is



through widespread education about it - particularly at the elementary level: “If fully supportive and life-enhancing environments are the goal, then this will only be achieved by shaping the consciousness of young people” (p. 57).

As it stands, architecture and the built environment is not adequately addressed in general education (King-McFee, 1999; Present-Lewis, 1989) as few teachers have studied it (Rojek-Olsen, 1989). This lack of, what Jane Remer (1996) calls, ‘a professional capacity’ within the school system points to the need for teachers to forge connections with local sources of expertise. Professionals in the built environment field, therefore, can play an important role in schools; museums, such as the CCA, are in an ideal position to connect them. By working together, they can make important steps towards incorporating architecture and built environment education into the curriculum.

The benefits of such partnerships are multifaceted. In addition to enhancing the curriculum, initiatives that draw on the expertise of professional architects can promote greater awareness, understanding, and concern for the built environment while providing a human face to the subject at hand. Working alongside the architect, students learn to see relationships, analyze situations, question solutions, formulate opinions, and make decisions, while benefiting from personalized assistance in problem solving (Avery, 1989). Exposure to “others interested in and involved in the subject content they are learning” (Frost, 2001, para. 28) can also provide students with mentors beyond the classroom and open doors to professions in the urban environment field.

### ***Projects Related to Content***

A review of literature has revealed a variety of projects related to the Graphic-Map Project. A project was determined to be related if it shared a similar mission or employed similar methods to this initiative.

Due to profound changes in the missions of museums (Williams, 1994), the practice of collaborating with local professionals in the provision of in-school museum programs is becoming more prevalent in today's museums and reflects, what Mtembu (2002) terms, the 'partnership movement' prevailing across today's organizations. A large number of American museums now employ these approaches. Perhaps most worthy of mention is the Solomon R. Guggenheim Museum in New York, which in 1970 pioneered the *Learning Through Art* program (LTA). LTA is an in-school program that aims to enrich student learning in and through the arts by sending practicing artists (theater directors, painters, photographers, and sculptors) into the classroom. Artists collaborate with teachers and museum educators to develop and implement year and semester-long residencies, exploring a diverse range of exhibition-related topics. The annual exhibition, *A Year with Children*, showcases artworks by students participating in the program (LTA, 2006).

Canadian museums are also slowly reaching out and linking schools to local sources of expertise. The Surrey Art Gallery (SAG) in Surrey British Columbia, whose educational programs are characterized by outreach and collaboration, is one example. In one project, the SAG connected local artist, Leah Decter, with students at a local elementary school resulting in the hands-on exhibition: *When I Grow Up*. The exhibit,

which showcased a series of books that contained student's images of their vision of the future, was a direct product of the artist's in-school visits with them (SAG, 2001).

Another example is the *Scientists & Innovators in the Schools* (SIS) program at Science World in Vancouver, British Columbia. The program, which includes in-school presentations by professional scientists on their topics of expertise, was created in response to a perceived need for more scientists and engineers and aims to promote students' interest in these subjects (Science World, 2006).

In addition to museums, a number of other organizations are involved in educational partnerships devoted to strengthening relationships between professionals, museums and their publics. The Cultural Heritage Initiative for Community Outreach (CHICO), the Pew Charitable Trust for Art Museums and Communities (PAMC), and the Museums, Keyworkers and Lifelong Learning project, to name only a few, are examples of these networking organizations.

Based out of the University of Michigan School of Information, The CHICO initiative (Frost 2001; CHICO 2006) educates 'information professionals' and partners them with local museums and schools in the creation of websites aimed at broadening the reach of cultural heritage education. In one CHICO partnership with the University of Michigan Museum of Art (UMMA) and a local school, an elementary class was engaged in developing an online exhibit guide and resource tool together with the UMMA museum educator, their art teacher and the school's technology specialist (Frost, 2001).

A PAMC initiative with the Seattle Art Museum centered on developing a museum-based arts education program in six Seattle Public Schools. As part of the

initiative, teachers, artists and museum professionals organized a student curated exhibition called *Documents International* and established the Wyckoff Teacher Resource Center aimed at making the museum and its collections more accessible as classroom resources (Pitman and Hirzy, 2004).

Concordantly, the Museums, Keyworkers and Lifelong Learning project funded by the European Union's SOCRATES program aims to identify and document innovative ways by which *Keyworkers* (individuals with content or experience based expertise) can link museums with their communities. Members of the project are: Büro für Kulturvermittlung (Austria), Casino Luxembourg, Museu Municipal de Vila Franca de Xira (Portugal), Irish Museum of Modern Art (Dublin, Ireland), Stockholm Education, the University of Surrey and the Victoria and Albert Museum. The Victoria and Albert Museum's *Young People's Program*, for example, is a Keyworkers initiative in which the Museum collaborated with youth, community workers and 'trainers', who acted as intermediaries between the museum and youth, in the creation of an online Newsletter (Gray and Chadwick, 2001).

On a more content-specific note, the study of architecture and the built environment has received increased recognition in the school curriculum through the efforts of arts-in-education programs such as Architecture in Education (AIE) and *Learning by Design* [organized by the American Institute of Architects (AIA)].

The AIE program, upon which the Graphic-Map Project was based, was first established in Philadelphia in 1981 as an initiative between the University of Pennsylvania and the Foundation for Architecture. AIE provides a model for built

environment education for K-12 students at the center of which is a classroom-based program in collaboration with Philadelphia architects. Each program is tailored to the curricular needs of the school and is co-taught by the classroom teacher, a volunteer architect, and a university architecture student (AIE, 2006).

The American Institute of Architects (AIA) has been involved in public education as a means of making architecture accessible to students since 1966. Their program, Learning by Design (Sandler, 1989), helps teachers integrate built environment education into existing curricula through ‘workshop’ and ‘action’ programs. The workshop program is an architect-teacher collaboration in the development of classroom resources while the action program involves implementing activities in the classroom.

Educational partnerships take an infinite number of shapes. The aforementioned initiatives by no means exhaust the examples, but have been selected to highlight initiatives that have either broadened the reach of architecture, or that of another institution-specific subject, through outreach to schools and collaboration with local professionals.

## CHAPTER 3

### Method

Due to the nature of the study and the small number of participants, qualitative research methods were chosen over quantitative methods. A multiple methods approach to gathering data was used in order to best answer my thesis questions: How did the architects' experiences compare to their expectations, and what are the benefits and challenges to using architects as facilitators of post-visit museum activities within the classroom setting? Data sources included in-depth interviews with the original members of Architects in Action, surveys of participating teachers' reactions to the program and classroom observations of architects' instruction which included an analysis of students' work.

#### *Interviews*

In an effort to ascertain if the architects' in-class experiences met with their expectations, I carried out an in-depth interview study with the architects before and after the implementation of the Graphic-Map Project in schools. I found a qualitative interview study to be the most appropriate research methodology because it allowed for a close and detailed look at the architects' unique situation.

Lead-up interview questions examined the architect's expectations of how the program would develop and what their contributions would be. When formulating my

lead-up interview questions, I chose to follow a semi-structured line of questioning to devise nine open-ended items in the form of a questionnaire. The questions focused on the expectations, objectives, motivating factors, and perceived roles of the architects (in relationship to those of the teacher). The questions also considered the perceived potential benefits and challenges of the program and elicited the degree of training that architects expected to receive from the museum (see Chapter 4).

Lead-up interviews were held in a public location of the architect's choosing. The architects were asked to commit to a half hour interview and were sent a copy of the interview questions beforehand. Interviews with Jessica and Marianne were conducted, in succession, on the 4th of October 2005. Jerzy's interview took place a week later on the 11th. Prior to beginning the interview process, I explained my role in the project and had my participants sign written consent forms. All of the architects agreed to have their full names revealed.

Follow-up interviews provided architects with the opportunity to reflect upon the post-visit activity and to identify how their expectations compared to their experiences with the initiative in general. When formulating the follow-up interview questions, I followed the same line of questioning to devise 16 open-ended items. These final questions focused on the architects' in-school experiences and the lessons learned from participation to determine if their attitudes had changed over the course of the project and whether set objectives were met (see Chapter 4).

The interviews were an hour in duration and took place in private and public locations of the architects' choosing. Both Jessica and Jerzy's interviews took place on

April 29, 2006, one and three days, respectively, after their in-school visits. Marianne, who was unavailable for an in-person interview at the time, responded to the follow-up questions via email.

Both lead-up and follow-up interviews were recorded using a digital recorder and later transcribed. In analyzing the interview data, I identified intrinsic statements and later went through those statements to try and derive congruencies between architects' responses to each question. When intersections did not present themselves, each architect's individual statement was presented. Interviews are presented one question at a time in order to present the data as objectively as possible, and were edited to unite sections of a narrative that was either interrupted or veered off topic.

### ***Classroom Observations***

A total of nine classes from six underprivileged elementary schools in Montreal took part in the Hear, Touch and Smell the City program. All six schools were from the French Montreal School Board. All but one of the participating schools were located in the downtown Montreal area with the other located in a neighboring suburb. Each in-school visit was two hours in length and was taught by a team of two architects and the cooperating classroom teacher. Different architect teams were assigned to each of the nine schools with some architects visiting the classroom on more than one occasion. An architect that was involved in the development of the project was always paired with an architect who was not. Marianne and Jerzy were paired together and visited a school in downtown Montreal whereas Jessica, and the architect she was partnered with, visited a



school outside the city. I observed both Marianne and Jerzy's and Jessica's in-school visits, which took place on the 26th and 28th of April, 2006. During these two visits, I took extensive field notes and photographs of the student art works produced.

Observations focused on the architects' level of preparation for the classroom setting, teachers' and students' level of participation in the activity, and the quality of the student work produced. The field notes were analyzed for themes that were then used as the organizational framework when presenting the data.

### ***Teacher Surveys***

In order to broaden the scope of the study, I provided participating teachers with the opportunity to contribute feedback regarding the success of the post-visit activity in survey format. Surveys were mailed to cooperating classroom teachers accompanied by an explanatory letter, consent form and pre-paid return envelope. The surveys offered teachers the option of remaining anonymous and contained a total of nine items. Likert (1932) scale and open-ended response formats addressed architect preparation and perceived benefits to participation. Surveys were written in French and responses later translated into English. Original surveys were sent out in April of 2006 while follow-up surveys, along with a reminder letter, were sent to non-respondents in mid June.

As with the interview data, congruencies between teachers' responses were derived from each survey question. Again, when intersections did not present themselves, each teacher's statement was presented individually.

## CHAPTER 4

### Presentation and Analysis of Data

#### *Summary of Responses: Lead-up Architect Interviews*

Lead-up interviews with architects were successful in producing a profile of their motivations, intentions, attitudes, perceived contributions and expectations prior to implementing the Graphic-Map Project in schools.

#### *Question One: Why are you interested in participating and what do you hope to achieve?*

In-depth interviews with architects revealed a range of reasons for participating in the project. However, strengthening the role of architecture within the school curriculum, due to a perceived lack of education about the built environment, seemed to have been the primary motivation: “It’s something that’s not generally present in schools or seen as something that should be taught,” says Marianne (personal interview, October 4, 2005).

Jerzy corroborates this notion when he says:

It mostly comes from a complete lack of education about architecture...most people don’t even have basic ideas about the history of the city or the evolution of the city in order to be able to understand where they’re living or how their space has come about (personal interview, October 11, 2005).

By working with students in the classroom, the architects hoped to achieve a number of specific educational objectives. One of these objectives includes fostering student enthusiasm for architectural design and understanding of its impact on their

world: “the most important thing is that they get excited about architecture or the built environment and realize that the world is full of architecture and that every great and horrible building that goes up in the world affects each of us” (J. Gutwein, personal interview, October 4, 2005).

Whereas Jessica aimed to contribute to an informed and responsible future citizenry capable of remediating deficiencies in the urban landscape, Jerzy hoped to impart knowledge and the acquisition of particular skills. When speaking about his aims in relationship to the other architects, he had the following to say: “I think they want to achieve more of an opening of the students’ horizons and ability to be creative where, although I think those things are important, I have other interests. I have interests in actually conveying knowledge and language” (personal interview, October 11, 2005).

***Question Two: What is your experience with teaching?***

All three architects had experience with teaching in some capacity. A child of two teachers, Jessica has worked with primary school students in the AIE program in Philadelphia as a teaching-architect and at the Harrisburg Academy in Harrisburg, Pennsylvania as both a substitute teacher in Music and Art and as an Extended Day teacher. Jerzy, also a child of teacher parents, worked for a year as an ESL teacher in a private high school in Poland and Marianne had experience as a music instructor.

***Question Three: How do you view your role in the classroom in comparison to that of the teacher?***

The way in which architects talked about their role in relation to that of the teacher's revealed their teaching philosophies and attitudes towards collaboration. The architects recognized that both they and the teacher bring different skills to the project and that, by working in tandem, they can complement each other's expertise. In the following excerpt Jerzy acknowledges the teacher's role as a link between the architects and the classroom culture:

It's working together because I'm not trained as a teacher – I think the teacher will be able to guide us in terms of what level is acceptable for the kids - what will they understand, what will they be able to concentrate on and what not. These are the things that are slightly beyond us, not the actual subject (personal interview, October 11, 2005).

All three architects advocated the active participation of teachers, as teachers would be able to make connections between the museum curriculum and other subject areas. Jerzy attests to this notion when he says: "I would ideally like the teacher to be thoroughly involved because then that person can go on to base future lessons on what we did" (personal interview, October 11, 2005). It is not surprising, then, that the architects perceive their roles in the classroom as that of facilitators working alongside the classroom teacher: "The idea is being the assistant to the teacher in this lesson about architecture," says Jessica (personal interview, October 4, 2005). Marianne expands on this idea:

I think that my role is definitely not to be the authority in the class. I don't want to reduce the teachers' role because I find it really important what they will do. I see my role as someone who comes in and wants to share knowledge about something

through the routines they're used to and their relationship to their teacher. I bring my knowledge to that (personal interview, October 4, 2005).

A discussion of the architects' roles revealed perceptions of the teacher as lacking in the tools and confidence necessary to teach the subject. This was mainly attributed to a lack of pre-service teacher training in the arts: "Teachers don't have the expertise to teach architecture because they were never taught in the first place, and so you begin this kind of cycle" (J. Elzanowski, personal interview, October 11, 2005).

***Question Four: What do you see as the skills that you, as a professional practitioner, bring to this situation?***

Two of the three architects listed subject knowledge as their primary contribution to the program: "I guess I have what the teacher doesn't have and I can bring that body of knowledge that I've been thinking and reading about and that I work with. Knowledge that the teacher might not be comfortable with," says Marianne Leroux (personal interview, October 4, 2005).

Prior experience in architecture education, either as the giver or recipient, was another perceived contribution. While Jessica had teaching experience in the Architecture in Education Program in Philadelphia, Jerzy indicated a formative school experience as his main contribution to the program:

In some way I think I bring more as a person having been educated in a certain system that prepared you for architecture in Poland much earlier than people do here. I think that having gone through a system in Poland where you had to decide in mid high school, you know when you were sixteen or whatever, that you were going into architecture...I think that's actually almost more important to me at

this point in the project than my professional education (personal interview, October 11, 2005).

***Question Five: How do you think you will benefit from participating?***

Interviews with the key members of Architects in Action revealed that, the architects viewed participation in the program as an opportunity for professional development. By striving to communicate architectural concepts to children, Jerzy hoped to improve his general ability to discuss architecture with laypersons:

The benefit for me is to learn how to present my subject in a way that is understandable to a twelve year old because that will also allow me to present that same subject to adults who are absolutely not in the field and to be able to create a language that is comprehensible (personal interview, October 11, 2005).

By exposing her subject to students' questions, Marianne hoped to gain new insights into her practice: "they really bring questions and afterwards when you go home you're full of questions about your own practice. It's that kind of reflection that I'm after" (personal interview, October 4, 2005).

***Question Six: How do you think the museum, teacher and students benefit from your involvement?***

In her interview, Jessica emphasizes the fact that the Architects in Action provide the CCA with the human resources it needs to extend its educational programming beyond the walls of the institution in a way that maximizes their educational value and encourages repeat visits:

The program allows the museum the extension that they wouldn't otherwise have. The programs that [the CCA] have are great and it's great that they get schools into the museum. I know that the interactions that the guides have with the classes also excite the kids. And, sometimes [students] want to see the exhibit maybe a second time with their parents but I think what [the Graphic-Map Project] offers is an opportunity to take it to another level because the guides are only able to see the kids for an hour, which is not very much time to expose the kids to the ideas presented in the museum. So I think this will reel them in even more by presenting them with professionals who think that [architecture] is pretty cool and I think you'll get a lot more kids showing up at museums (personal interview, October 4, 2005).

Jerzy also saw his academic and professional background as providing teachers with a resource that extended beyond the information that they would have typically been presented in a teacher-guide:

I imagine that even though the CCA will try to write the post-visit activity in a way that is understandable to a teacher...when we see a piece of paper like that it's completely intuitive as to what we want to achieve. If the teacher is slightly interested in the field then of course they'll probably be able to figure it out, but I imagine that we'll have that much closer of a link to the CCA document and also we'll be able to do variations on it and we'll also have an intuition as to whether the activity is working or not which the teacher might not depending on whether they have experience in the field or not (personal interview, October 11, 2005).

***Question Seven: What do you expect might present itself as a potential challenge?***

The challenges that architects expected to encounter were highly individualized although unanimous concern was expressed over institutional boundaries. Jessica speaks to this notion when she says: "Because this is a pilot program there could be a problem, I really hope not, with boundary issues between what is the domain of the museum and the

guides and where our domain as helpers to that begins” (personal interview, October 4, 2005).

***Question Eight: Have you or will you receive training from the museum?***

When questioned about their preparation for integration into classrooms, the architects were uncertain as to the level of training they would receive from the museum. The majority expected to receive some form of training even if they could not, at the time, articulate the form or extent that this training would take.

***Question Nine: Do you have any general expectations that we have not covered so far?***

All three architects anticipated the program to be a success and expected to continue to collaborate with the CCA:

What I would like, and I guess it’s not so much an expectation as a goal, is that [the educational partnership] doesn’t end and stop with this program. That it would be something that might be seen as vital and would want to be continued by the CCA (J. Gutwein, personal interview, October 4, 2005).

The architects also envisioned this pilot project being the start of something larger: “Our general concept is to have this be a stepping-stone to creating a larger organizational foundation to do this kind of work because we don’t really feel that Montreal has something like that” (J. Elzanowski, personal interview, October 11, 2005).



### *Description of the Architects' In-School Visits*

The Architects started their in-school visits with a review of the tour with the Urbanists, soliciting responses as to what the students had done and what they had found important about the places they encountered. The physical classroom was set-up into three workstations: a memory-map workstation, a sound-map workstation and an odor-graph workstation. An architect or a teacher, with the teacher facilitating the sound-map on all occasions, ran each workstation. Students were divided into three groups of up to a maximum of eight students per workstation - providing them with a high level of individual attention.

Instruction booklets, describing each activity step-by-step, were distributed to students, supplementing the working booklets that students had completed during their tour with the Urbanists. The same instruction booklets had been made available to teachers prior to the in-school visit. The architects and teacher explained their respective workstations to their group of students who rotated stations on the half-hour until they completed all three activities. In their explanations, the architects made use of student examples from previous classes. During the lesson, both architects and teachers circulated amongst the class to check on student progress.

At the end of the two-hour session, the individual maps were assembled together into a visual representation of three architectural sites in Montreal. Added to the resulting collaborative map were rubbings that students had taken during their tour with the Urbanists. A critique, wherein students were provided with the opportunity to look at and discuss their work, closed the in-school visit. During this discussion, the architects made

connections amongst exhibition themes, students' experiences during the city tour, and the built environment that surrounds them.

### ***The Graphic-Map Project***

The Graphic-Map Project builds on students' previous experiences with the Hear, Touch and Smell the City program, promotes collaborative learning, and makes use of multi-modal, hands-on activities to appeal to multiple intelligences (Davis, 1996). It allows students to develop two competencies from the visual arts curriculum (Production and Appreciation) and, because of its interdisciplinary nature, makes connections to four out of five 'broad areas of learning' including Well-Being, Career Planning, Environmental Awareness and Community Life. In addition, the project makes connections to all four 'cross-curricular' competencies: Intellectual, Social, Communication-Related and Methodological (Quebec Educational Program, 2006).



**An example of a collaborative map.**

## *Summary of Classroom Observations*

### *Student Engagement*

Classroom observations generally revealed a high level of student engagement. Student engagement was highest when teachers participated fully along side the architects and supported them with classroom management. During the architects' in-class visits, students were involved in responding to visuals, material manipulation and imagery development through collaborative group work, and classroom discussions. Students were generally on-task and working collaboratively.

The discussion that followed Jessica's post-visit activity was highly interactive, revealed a high level of student participation, and often included student-initiated questions that influenced the direction of the discussion. Students were particularly interested in the architects' profession, asking about the projects the architects were currently involved with and clarifying distinctions between architecture, urban planning and industrial design.

This discussion revealed the project's success in developing students' architectural literacy. Students' newly acquired awareness of architecture; their ability to use architecture-related vocabulary, and think critically about it could be evidenced in some of their comments. For example, when asked why architects need to give careful consideration to the materials they use, one student, drawing on his previous experiences with the program and referencing the color theory he had learned during the odor-graph activity, aptly pointed out that, in addition to structural implications, different materials could engender different emotional responses in people and thereby affect their mood.

### ***Organization***

Whereas Jessica was able to set up her workstations before students' arrival to the classroom, Marianne and Jerzy did not have this luxury. As a result, dealing with the organization and distribution of materials was a minor challenge. Scheduling the post-visit activity at the beginning of the school day or after a break and engaging students in the distribution of materials could have alleviated these problems.

### ***Teacher Engagement and Support***

Although the cooperating classroom teachers facilitated the sound-map workstations in both cases, they were initially unsure of what to do and had to solicit clarification from the architects on a number of occasions. As a result, students were kept waiting while the architects gave instructions at their respective workstations before attending to the teachers' workstations, or vice-versa. Clearly, teachers would have benefited from a briefing about their role prior to the start of the lesson.

There was a tremendous difference in the level of teacher support between the two classes observed. Whereas Jessica's cooperating classroom teacher played a highly active and effective role in the lesson, Marianne and Jerzy's cooperating classroom teacher did not support them with classroom management and left the room on a number of occasions for up to ten minutes at a time. Bertles (1996) points out that when teachers support professional arts practitioners through participation, students are more likely to participate fully: "By the teacher showing his or her commitment to participate in the

workshop, the students will inevitably commit themselves more deeply to join in as well” (p. 268).

### ***Timing and Sequencing***

Although Jessica did not have problems with timing and sequencing her lesson, during Marianne and Jerzy’s in-class visit it became evident that the introduction could have been compressed in order to assist the pace and the completion of the activity. As a result, the architects did not have sufficient time to discuss the final product with their class.

### ***Questioning Techniques***

The architects made an effort to include a variety of students in their questions to the class while teachers took the opportunity to paraphrase where necessary. Questions were carefully prepared and open-ended, encouraging individual meaning making. Examples of questions asked by the architects included: “What was most important to you about the places you visited”? “What did you like or dislike about some of the places”? “Can you describe one of the sites you visited”? “Does the map represent your visit”? Wherever possible, architects should resist slipping into a transmissional (Miller and Seller, 1990) mode of delivery, in which they give students rote information, when students do not immediately provide them with the answers they are seeking (Bertles, 1996; Burton, 1996).

### ***Communication***

The architects started the post-visit activity with a review of the content and then confidently delivered lesson instructions, which were usually short and clear. Use of student feedback was generally appropriate although the architects should avoid complimentary, judgmental or valuing approaches when talking to students about their work (Schirmmacher, 1986). The architects would benefit from continuing to work on the clarity of their instruction and, in order to affect a stronger classroom presence, raising their voice for effect when appropriate.

### ***Rapport with Students and Teachers***

In both cases, the architects had a positive rapport with their cooperating classroom teachers. They interacted extremely well with students on a one to one and small-group basis, and had the ability to motivate students to meet their expectations.

### ***Analysis of Classroom Observations***

The classroom observations indicate that students' participation in the Graphic-Map Project had a positive impact on their learning. This can be seen in the quality of the graphic work produced, in addition to the level of student engagement in the classroom discussion, which demonstrated the abilities of students to talk about architecture and support their ideas.

The architects were extremely knowledgeable and exhibited the ability to lesson plan and fit into the classroom setting. They demonstrated initiative and dedication in constructing and finding project materials as well as in creating teaching resources. The architects worked extremely well together and it was evident that their roles were precisely defined. However, the lessons need to be simplified to ensure student understanding and promote ‘on-task’ behavior, while improved pacing will enable the architects to cover all activities. Teachers, in turn, must participate fully alongside the architects and support them with classroom management.

***Summary of Responses: Follow-up Architect Interviews***

Follow-up interviews revealed how the architects viewed their in-class experiences and their experiences with the program in general; highlighting the challenges they encountered, project successes, in addition to their recommendations and future intentions.

***Question One: How do you think the post-visit activity went and did it meet your expectations?***

Despite some challenging classes, the majority of architects reported having a positive experience during their in-class visits. Seven of the nine in-class visits were reported to have been successful. In her interview, Jessica comments on the collective experiences of the Architects in Action:

There were nine classes... the first [architect-team] came back with glowing results - they had a good class and they had great results. The second...was a group where the teacher was less involved and it was also a group that didn't have a good experience with the Urbanists - it was a really rainy day, and it was cold, and they got there late, and they didn't do very much work during the tour. So, that [architect-team] had a hard time with the class coming into it. They ended up getting some good results and they said they had a good time with the kids but it was rocky at first. The whole middle section everyone was just like: 'Wow we had a great time. We had a great class. It was good'. The last two [architect-teams] had hard classes - like the teacher told them that this class is difficult. I have to say for the most part the majority of [classes] were really, really good. I mean you're always going to get some group that's harder to deal with (personal interview, April 29, 2006).

***Question Two: Is there anything that you found challenging about the lesson?***

For some architects working in a second language was initially challenging: "I was kind of nervous because of the French, which dissipated within five minutes of being there and it really just broke down to dealing with the kids, and they don't care about any of that" (J. Gutwein, personal interview, April 29, 2006). Despite this initial nervousness, working in her second language ensured that Jessica fully prepared herself for the classroom visit: "Because I was worried about the French, I was working on it much harder than I might have if it had been an English school" (personal interview, April 29, 2006).

The main challenge that emerged out of the interview data, however, was the post-visit activity itself. Due to the complexity of its design, the activity presented the architects with a number of organizational and motivational difficulties. The architects recognized that some aspects of the three-part post-visit activity were weaker than others, and that rotating stations on the half hour did not allow some students to sufficiently



engage in the activity in a meaningful or relevant way. As a result, the architects found it challenging to motivate those students to stay on task:

We're trying to do three different activities at the same time basically and the activities are short so they can't really sink their teeth into it per se. We didn't ask them to design a room or something where they're supposed to be sitting there for a long time pouring their heart into - something that's very personal. We kind of gave them something that's a little impersonal so you really have to sit on each single one to make sure that they're working. So, it was really exhausting, 'cause even though I'm managing only six to eight kids at a time, I was going to every single one of them, one after the other, one after the other, trying to get them to work" (J. Gutwein, personal interview, April 29, 2006).

In her interview, Jessica explains how the planning of the activity was also challenging owing, in part, to limitations placed on the architects by the CCA's curricular guidelines:

At first...there was a bit of frustration with 'alright this map - is that the most important thing we have to say about architecture is this map'? The goal of the project is not finding the most important thing about architecture. It's fitting in as being one cog in this program. Our graphic project was 'you're going to make a map of their experience with the Urbanists' - that was our job. We knew that that's what we needed to do - O.K. a map and it's a map for nine classes. It had to be this collective thing. So, it did compress the individual creativity but it was really hard to figure out how you get thirty kids' work on five pieces of paper - how do you have that many kids working on a limited number of pages? (personal interview, April 29, 2006).

***Question Three: How do you think this lesson could have been improved?***

The architects were very self-reflective and had a number of ideas as to how the project could have been better designed and implemented. All of the architects agreed that the project needed to be simplified and restructured to include a single sustained

activity that students would find more engaging. In her interview, Jessica addresses this need:

The way we set it up was rather complex. I would say that it would be a lot easier for everyone involved to do a much simpler project where every kid would be working on the same thing either collaboratively or individually. Something more personal and more design-oriented (personal interview, April 29, 2006).

Upon reflecting on the in-class visits, the architects thought that it might have been easier if a team of three architects taught the post-visit activity. Jerzy discusses the implications of employing this strategy:

The problem with [the teacher] being...in charge of [the sound-map] is that she's not in charge of the entire class... so no one is. So, in that way it might have been better for us to have had three [architects] for the three tasks and then the teacher. But, on the other hand, I liked the fact that the teacher was responsible for one task because that gave her a real 'in' on the project. Rather than just being the observer, she got to do one of the tasks and got to influence how that task got done (personal interview, April 29, 2006).

The architects acknowledged that increased interaction between architects and cooperating classroom teachers would have provided professional development for both, and expressed a desire to work more collaboratively with teachers repeatedly throughout their respective interviews. Jessica sums up their collective responses when she says:

I think working with the teacher beforehand just would have made everyone feel more at ease just walking into the class because you already know what to expect, they know what to expect, they're ready for you, maybe they have everything set up for you. That would have taken one whole level of stress out of it for everyone involved (personal interview, April 29, 2006).

In addition to increased collaboration between teachers and architects, Jerzy saw a need for increased communication and preparatory meetings within the Architects in

Action organization itself:

I would also try to change the fact that there was only one meeting [of architects] and increase pre-planning and post-discussion meetings so there would be the pressure of explaining [the activity] and doing it and then discussing it because in fact we didn't discuss it and we explained it very briefly, which was one of the problems of why it was difficult to follow partly (personal interview, April 29, 2006).

***Question Four: Rate your level of comfort as a facilitator of follow-up museum activities from 1 to 5.***

When asked to rate their level of comfort from one to five (one being extremely uncomfortable and five being extremely comfortable), the architects rated their comfort level as a 2, 3.5, and a 5; revealing that most of the architects felt either extremely comfortable or mostly comfortable in this role.

***Question Five: What did you think of the final product?***

All of the architects were satisfied with the quality of student work produced during their in-class visits. Jessica, who saw the work produced in all nine classrooms, comments:

In some of them [odor-graphs] we have these really neat bands that are these great colors and it just looks beautiful. Across the board we have pretty good [sound-maps]. Some have really good-memory maps but you can tell what engaged which class. By and large, I think it's going to look really neat together (personal interview, April 29, 2006).

Although the final product met with Jerzy's expectations for this particular project, it fell short of what he thought Architects in Action could ultimately achieve by working with students in classrooms:

I thought it was exactly what was going to happen because it was planned out so precisely that there was not really any point where you could go wrong so in that sense the final product was exactly what I thought. Whether it meets what my dream project coming out of a class is, no probably not. So I felt that the project goal was achieved but that the project can be improved (personal interview, April 29th, 2006).

***Question Six: What did you think about the students' and teacher's level of participation and engagement?***

Jessica was satisfied with both the teacher and students' level of participation in the activity:

Our substitute...was great. She did what she was supposed to. The kids listened to her pretty well. She had pretty good control of the class. The kids were pretty interested. They were trying to do what they were supposed to do. We had their attention (personal interview, April 29th, 2006).

Although happy with his cooperating classroom teacher's level of participation in the project, Jerzy hoped for more involvement from his students:

The students' participation - I found it was pretty average. I think they could have been more interested. I think they could have participated more and better. They didn't not participate - they were a difficult class and I think there were simply better classes (personal interview, April 29, 2006).

***Question Seven: Did any aspect of the experience surprise you?***

The architects expressed surprise with regard to the amount of work involved in coordinating the Graphic-Map Project. In her interview, Jessica attests to this fact but admits that in some ways it was due to the ‘make-work’ nature of the post-visit activity: “I was surprised by the amount of preparation it took. It was a lot of work! A lot of coordination of supplies because the way we set the thing up there was no other way to do it” (personal interview, April 29th, 2006). Despite this, however, the high level of response and commitment she received from the architectural community pleasantly surprised Jessica:

I think I was surprised by how many [architects] we got. That’s why I have a lot of hope that we can actually do something with this... because there are all these other people that are extremely passionate about doing this and seeing it work and seeing it go somewhere each for their own reasons. So, I think [Architects in Action] is going to be in good hands – it’s not on one or two peoples’ shoulders... especially if everyone feels [the Graphic-Map Project] was a success this year and that we can really look at it and say ‘what would we want to do differently?’ (personal interview, April 29th, 2006).

Jerzy corroborates this statement when he says:

The [architects] were amazing – how positively they reacted, how easy it was to motivate them to do things, how precise they were, how well they put together the project, how they developed the project beyond what we had developed in the beginning, how they weren’t scared to bring in their own initiatives. So that was a very positive experience (personal interview, April 29th, 2006).

***Question Eight: What did you learn from the experience and do you think you learned anything that you didn't know before?***

The architects appreciated gaining insights into running a non-profit organization: “I definitely learned something about the interior of an organization and the dynamics of the group, and how much work it is to organize volunteers” (J. Elzanowski, personal interview, April 29th, 2006).

***Question Nine: Would you participate in this type of project again?***

Although all of the architects interviewed said that they would be interested in participating in a similar initiative again, they were keen to implement a number of changes. While Jerzy hoped to deal with Architects in Action outside of the work environment in future, Jessica was interested in cultivating a new working relationship with the CCA that would include increased freedom with regard to curriculum design:

I don't want [Architects in Action] to be this separate entity just running their own course and not looking back to the CCA. Why would you do that when you have this great resource that other cities don't have? But on the other hand, I don't just want to be like: ‘Well, what do you want us to do this year?’ Another time I'd like to say: ‘Well this is what we're interested in doing, does this fit into what you're doing? That is more collaborative and it's just going to take us being a little more on our own feet with a real mission statement and a real curriculum. I think it would be very satisfying to come up with the curriculum of all the different things we could say; all the different things we want to cover. We could tailor a program that we do as a liaison to what [the CCA] is doing in their exhibit that year. It can be coordinated at the same time because we decide to work on a project together but it doesn't have to be spoon-fed by the museum. (personal interview, April 29, 2006).

***Question Ten: Do you think you received enough support or training from the CCA, and what additional support or training, if any, would you want from the museum in future?***

Although all of the architects had seen the exhibition, they were not provided with any formal training and expressed an interest in forging a closer working relationship with the museum. For Jerzy, training entailed an overview of children's developmental needs: "It should be a workshop in what is an appropriate level of project for a class and how much material can be covered in a certain time frame" (personal interview, April 29th, 2006). Marianne and Jessica, on the other hand, expressed a desire to tour the exhibition as a group with museum educators in order to make better connections between the exhibit and the post-visit activity:

Yeah it would have been nice if we all...could have seen the exhibit and we all could have talked about what the exhibit's trying to say and then we all could have maybe discussed what is our project trying to say in relation to that. So that [the students] can see how it's related and that there aren't these separate things thrown at them (personal interview, April 29th, 2006).

***Question Eleven: Do you think you received enough teacher support during the activity and what kind of support, if any, would you want from the teachers in future?***

Although most of the architects expressed a desire for additional support from their cooperating classroom teachers, they recognized that insufficient communication between architects and teachers was the shortcoming: "I would want more support from the teacher but I think that was our fault. The teacher needed more support in order to give more support" (J. Elzanowski, personal interview, April 29th, 2006).

***Question Twelve: What made the experience both negative and positive for you?***

Responses to the first part of this question were highly individualized. For Jerzy, balancing the demands of work and the project was particularly challenging:

What made it negative was definitely the fact that we had deadlines at work and it was a hard month for me personally...with this project on top. So, that was difficult. I felt that because it was in the office it really infringed on our work time and our bosses weren't too happy with that and it was hard to concentrate on our work because this was going on in the background (personal interview, April 29, 2006).

Another perceived negative was travel, which hindered the architects' access to one of the schools. In her interview, Jessica, who had to rent car in order to get to a suburban location, speaks to this problem when she says:

There was nothing negative about the actual experience but the school was kind of far away. I didn't know we'd be going out that far and I think I would probably in the end not choose a school that was that far away for our volunteers. We wanted it to be something that you could walk to or take the metro to like you would any day because we're volunteers and because we're not getting a stipend for travel and you have to be away from work (personal interview, April 29, 2006).

All three architects, however, reported that the overall experience was positive due to their interaction with the students themselves: "The excitement of the students, their willingness and enthusiasm for the project was the most positive aspect for me both in the produced graphic work and in the discussion. They had a lot of ideas about architecture and were anxious to get it out" (J. Gutwein, personal interview, April 29, 2006).



***Question Thirteen: Do you think teachers should acquire additional skills in order to work with you more effectively?***

None of the architects thought that teachers should acquire additional skills in order to work with architects in this particular capacity:

If you turn it into an entire program where a certain school has a design education program then that's another story, but...I don't think that the activity was complicated enough that the teacher needed extra training in order to follow it. Maybe they would have benefited from some more prepping so they could prep their class, but not training (J. Elzanowski, personal interview, April 29th, 2006).

***Question Fourteen: What advice would you give to other professionals who were interested in participating in a similar project?***

The architects recommended choosing a simple project that relates to students' lived experiences. Also, they expressed the necessities of having a genuine interest in working with school-aged children and a thorough preparation to the classroom culture:

You have to know that you have to talk loudly. You have to be prepared for the fact that your plan might not work the way you think it is and you're going to have to work on your feet and you're going to have to know how to keep control but keep [students] engaged. You have to think whether the project is something that, if I were a kid, would I know what you're talking about? How do you make it accessible to the kids so that you're asking them questions in a way they can relate to? (J. Gutwein, personal interview, April 29th, 2006).

***Question Fifteen: Have you met your objectives?***

All of the architects said that they had met their objectives:

Yes...I think we [met our objectives]. We got in there. We did our project. We had a lot of kids that were excited. It's going to be nice to see them at the exhibit. When they see it all together I think it's going to look really impressive. I think

that's where the real final success comes in. But, I mean, they seem to have had a nice time and we got some good results. That's about as good of an objective meeting as I can think of (J. Gutwein, personal interview, April 29th, 2006).

***Question Sixteen: What kinds of mechanisms, if any, have been put in place to ensure the program's continuation?***

The architects intend to incorporate the Architects in Action organization: "These mechanisms aren't in place but I want to get them in place like next week: getting a name, getting a certificate of being a foundation or organization – an actual non-profit essentially - and job descriptions" (J. Elzanowski, personal interview, April 29th, 2006).

Additionally, Jessica is in the process of identifying potential funding sources in support of Architects in Action:

The next goal would absolutely be to try and get funding. We had a remarkably good time of finding [architects] that were interested knowing that they were going to pay for their own time off from work and that they weren't getting paid for travel. Nobody even asked. Nobody even complained. But it'd be nice to have a little bit of a stipend to say 'yeah we're going to pay your metro fare to get over there every time so don't worry about it' or to give them a cup of coffee at the meeting (personal interview, April 29th, 2006).

***Comparative Analysis of Interview Data***

For the most part, the architect's experiences matched their expectations. In the lead-up interviews, the architects expressed the expectation that the program would be a success. In follow-up interviews with the architects seven of the nine in-class visits were reported to have been extremely successful - an average of 78%. Dissatisfaction with the

remaining two in-class visits was attributed to behavioral problems in challenging classes.

The architects reported having met their objectives and were successful in exposing students to architecture and ensuring that the post-visit activity was delivered in the classroom. The level of student and teacher involvement, the quality of the student work produced, and the dedication of the architect volunteers who made the project possible also indicated success.

The architects did not encounter the challenges they had anticipated, however, they were met with challenges they did not expect. These included working in a second language, balancing the demands of work and the project, and physically accessing some of the schools. In addition, a lack of adequate training and collaboration challenged the design and implementation of the post-visit activity itself.

Although the architects were aware of the strengths and weaknesses of the Graphic-Map Project, they felt limited by the curricular guidelines placed on them by the CCA and were keen to implement a number of changes in future with respect to curriculum design and their working relationship with the museum. Despite these challenges, the Architects in Action perceived their involvement in the project as a positive experience and unanimously agreed to participate in a similar initiative in future. “It was a great experience,” says Jerzy (personal interview, April 29, 2006).

***Summary of Responses: Cooperating Classroom Teacher Survey***

Two of the eight cooperating classroom teachers (one cooperating teacher was absent on the day of the architects' in-school visit) returned a completed survey, yielding a response rate of 25%. The surveys, however, were returned with all questions answered in full, and both teachers agreed to have their identities revealed. Dominique Touzel and Caroline Massé's completed surveys were received in May and June of 2006 respectively.

***Question One: Why did you sign up for this post-visit activity?***

Both teachers said that they felt that the Sense of the City exhibition's sensorial approach to architecture would appeal to their students. In her survey, Caroline Massé goes further to comment on the post-visit activity itself: "It adds a very hands-on component to the program and offers students the chance to produce something concrete and original" (teacher survey, July 2006).

***Question Two: Did the post-visit activity meet your expectations? Explain.***

Survey responses indicated that the Graphic-Map Project met both teachers' expectations and was viewed as a success. Dominique Touzel emphasized architect support as a key aspect of the project's success, while Caroline Massé identified both the structure and hands-on nature of the post-visit activity as elements of success: "The architects succeeded in designing concrete activities from abstract ideas i.e. the sensory

map following a visit to the city. The structure of the activity, in the form of workstations, was very much appreciated” (teacher survey, July 2006).

***Question Three: How well do you think the architects integrated into the classroom culture and how did their presence affect student learning?***

In both cases, the teachers perceived the architects as having a positive impact on student learning. Dominique Touzel speaks to this notion when she says: “Their presence was very enriching to the students” (teacher survey, May 2006). In her survey, Caroline Massé recounts a similar experience and affirms that the students worked much harder with the architects than they do on a regular basis. The architects’ integration into the classroom culture was characterized as successful with the indicators: good.

***Question Four: How would you rate your level of participation in the planning and teaching of this activity?***

Neither teacher reported dissatisfaction with their role in the teaching of the post-visit activity or their level of participation in its development. By contrast, Caroline Massé, in addition to facilitating the sound-map workstation, was willing to support the architects by managing the class: “I was very happy to have been able to give a helping hand with the management and the timing of the class” (teacher survey, July 2006).

***Question Five: Would you conduct the post-visit activity on your own if it was made available to you in written format?***

Both teachers said that they would not have conducted the post-visit activity had it not been for the architects and believed that the architects' involvement was intrinsic to its value. Caroline Massé comments:

I didn't really know what to confine myself to and even if I found the idea of the activity very original, and valuable, I wouldn't really have known what to do. It would have been necessary to at least have a model, examples, and detailed explanations. Having said that, I believe that it is much better with the architects in the classroom (teacher survey, July 2006).

Dominique Touzel mirrors this sentiment when she says: "I don't think so because it is a large project...it is the architects' involvement that allowed the objectives of this project to be reached" (teacher survey, May 2006).

***Question Six: Rate your level of comfort in teaching this post-visit activity on your own.***

When asked to rate their level of comfort in teaching the post-visit activity on their own on a scale from one to five (one being extremely uncomfortable and five being extremely comfortable), the teachers rated their comfort level as a 2 and a 3, revealing that neither teacher felt comfortable as a leader of follow-up museum activities.

***Question Seven: Do you think that museums should continue to employ professionals in this capacity?***

Both of the teachers surveyed were in support of museums employing professional arts practitioners in an educational capacity albeit for different reasons. Dominique Touzel, was of the opinion that student contact with the architects provided them with exposure to differing professions, while Caroline Massé had the following to say: “Yes, absolutely. It gives credibility and an importance to the projects that we would have been hard pressed to achieve on our own. Also, the students really appreciate having guests, it’s motivating for them” (teacher survey, July 2006).

***Question Eight: What do you think are the advantages of architect facilitated post-visit activities?***

Responses to this question fell into two categories - advantages for students and advantages for teachers. Whereas the advantages listed for students included exposure to the field of architecture and the opportunity to participate in hands-on learning, architect-facilitated post-visit activities were also perceived as a professional development opportunity for teachers. Caroline Massé lists the ways in which she saw herself as benefiting from the experience: “Diversifying my teaching and enriching it with new ideas. Profiting from the knowledge and competencies of others. Working in a team with other professionals” (teacher survey, July 2006).

***Question Nine: How do you think the post-visit activity could have been improved?***

While Dominique Touzel thought that the post-visit activity was worthwhile as is, Caroline Massé made the following suggestions:

Make sure that all of the workstations require the same amount of time for completion to avoid one team finishing well ahead of the others and having to wait, as this causes disorganization within that group, and follow the activity to which the map project relates as soon as possible. In this case, have the architects visit within a few days of the visit to the city (teacher survey, July 2006).

***Analysis of Teacher Survey Responses***

Respondents revealed a highly favorable attitude towards both the Graphic-Map Project and the architects who were characterized as well prepared, open, approachable, and capable of adapting to the classroom culture.

The survey data indicated that both teachers perceived architect involvement with the post-visit activity as a key aspect of its success and were in support of museums employing professional arts practitioners in an outreach capacity. In particular, these teachers thought that the architects had a positive influence on their students' learning and work habits while providing them with the opportunity to extend their expertise and develop new competencies. They believed that students' direct access to the architects not only exposed them to the field of architecture, but also endowed the post-visit activity with a certain credibility. This is consistent with Burton's (1996) view that professional arts practitioners can endow children's creative acts with a validity that extends into the world beyond the classroom.



Most striking, both teachers appreciated the architects' assistance with the post-visit activity and admitted that they would not have followed-up on the museum experience without the accompaniment of the architects. This last finding is in keeping with literature (Apple, 1993; Deniston-Trochta, 2001; Remer, 1996;) suggesting that even when teachers recognize the value of the arts, they are uncertain of how to facilitate them and integrate them into the curriculum. Architect facilitated post-visit activities were perceived as an effective means of supporting teachers to integrate the museum experience into the classroom.

## CHAPTER 5

### Discussion and Implications

This chapter highlights both the strengths and weaknesses associated with the educational partnership between the CCA and the Architects in Action, and presents recommendations for how the partnership could be improved.

#### *Key Aspects of Success*

The educational partnership between the Canadian Center for Architecture and the Architects in Action, which resulted in the Graphic-Map Project was viewed as a success and met both participating architects' and teachers' expectations. The partnership was successful in widening student access to architecture and built environment education, improving upon its quality, and ensuring that the museum experience was extended to the classroom. Moreover, it served as a professional development opportunity for teachers and had a positive impact on student learning; while teachers developed new ideas for incorporating architecture into the curriculum, students gained factual knowledge and critical thinking skills.

Central to its success were the architects themselves, without whose initiative, leadership, and commitment to improving the status of architecture in the curriculum the Graphic-Map Project would not have been possible. Another significant strength of the initiative was the educational strategy employed by the CCA - utilizing professional arts

practitioners in an outreach capacity to extend its educational programming. From the interviews, classroom observations and teacher surveys, it is clear that architect facilitated post-visit activities are an effective means of supporting teachers to integrate the museum experience into the classroom - something teachers admit they would not do on their own.

### ***Potential Areas in Need of Improvement***

Both the interview data (architect suggestions and reported challenges) and classroom observations point to the fact that, in order to maximize the effectiveness of their contribution to elementary education, the architects would benefit from a more thorough preparation to the school setting and increased collaboration with cooperating classroom teachers. Architect preparation can take the form of a variety of training/professional development opportunities to achieve this end. Universities and museums can play an important role in this process.

Judith Burton (1996), argues that universities need to develop induction courses specifically tailored to professional arts practitioners who intend to work in schools: “a glaring and present need exists for pilot projects to lead the way in this kind of training” (p. 320). Burton insists that, although not intended as a mini teacher-training course, such courses should nonetheless introduce professional arts practitioners to instructional methodologies and lesson planning, orient them to the realities of the school working environment, and prepare them for in-school collaboration with teachers. She goes further to suggest that if professional arts practitioners are to be prepared to work with

teachers in this capacity, then teachers, in turn, need to be prepared to receive them and that pre-service education coursework should provide teachers with first-hand collaborative planning opportunities:

If teachers are to be adequately trained to accommodate visiting professionals within their classes, then artists, specialists, and classroom teachers should be brought together from time to time during their formative education –to reflect, to try out ideas and to learn how to plan together. This kind of interchange and mutual learning is possible if the colleges and universities commit themselves to this kind of work and foster such collaborative training in pre-service education (p. 325).

Pending the general availability of such courses, museums and other arts institutions/organizations that link professional arts practitioners with schools need to bear the responsibility for providing professional development to both the teachers that participate in their programs and the professional arts practitioners on their rosters. Two organizations that model exemplary practices in this arena are the *Lincoln Center Institute* (LCI) in New York, and Architecture in Education (AIE) in Philadelphia. Both offer a variety of ongoing professional development opportunities for participating artists and teachers, which include collaborative planning sessions. Additionally, the LCI collaborates with university education departments to design courses that prepare pre-service teachers for practicums in partnership schools (LCI, 2006), while AIE education specialists assist each teaching team (comprising of an architect, teacher, and architecture student) with curriculum design (AIE, 2006).

In the absence of such formal training and professional development opportunities, collaborative planning, in and of itself, can serve as a means of informal training for both professional arts practitioners and cooperating classroom teachers, while

positively influencing the design and implementation of classroom activities. By involving teachers in the planning stage, professional arts practitioners can ensure that classroom activities not only reflect their professional expertise, but are also tailored to the needs and interests of teachers and their students. Collaboration at this level ensures that teachers have a clear understanding of a project and their role within it, making it easier for them to actively participate in the teaching of the activity and to later connect it to other areas of the curriculum. Where collaborative planning with each cooperating classroom teacher is not possible, teachers can be employed in an advisory capacity. For example, the Queens Museum of Art in Queens, NY and the Contemporary Art Gallery in Vancouver, British Columbia both employ teacher-advisors to inform educators as to how they can best help classroom teachers bring art into the curriculum.

Jane Remer (1996), author of *Beyond Enrichment: Building Effective Arts Partnerships with Schools and your Community*, argues that training should be a series of ‘interlocking efforts’. Ideally, these interlocking efforts would include all of the aspects listed above, however, any of the aforementioned training or professional development opportunities, individually or in combination, would help professional arts practitioners prepare for work in schools. Although the CCA offered professional development to teachers in the form of an orientation session, they did not train the architects or provide them with the opportunity to collaborate with teachers, reflecting the common conception that “Teachers need training in the arts more than artists need training in pedagogy” (Burton, 1996, p. 325). Had the CCA extended professional development to the Architects in Action through direct training or collaborative programming opportunities,

the architects would have been better equipped to plan for lessons that promote on-task behavior, organize classroom set-up, distribute materials, pace and sequence lessons, and ensure a higher level of teacher engagement and support. Thorough preparation to the school setting and collaboration with cooperating classroom teachers, therefore, could lead to even more successful programs.

### ***Recommendations***

Both the findings of this study and the literature point to the following recommendations, which should guide the development of future educational partnerships. Although these recommendations were made for educational partnerships in the arts, they can be adapted for partnerships in other subject areas.

*Recommendation 1.* University education departments should develop induction courses specifically tailored to professionals who intend to work in schools. Courses should prepare professionals for the classroom culture and focus on instructional methodologies, organizational and disciplinary techniques, lesson planning and in-school collaboration with teachers.

*Recommendation 2.* Museums that collaborate with professional arts practitioners in educational partnerships should offer training to those professionals as a matter of priority. This can be done in partnership with other educational institutions or through

seminars at the museum, and should offer both teachers and professional arts practitioners the opportunity to plan together.

*Recommendation 3.* Teachers should be involved in lesson planning with professionals so that classroom activities can be tailored to meet their curricular needs, appeal to multiple learning styles, and adhere to the time constraints of the classroom.

*Recommendation 4.* Museums should document and evaluate educational partnerships in order to gain insight into their strengths and weaknesses. The involvement of teachers in this process should be mandatory to participation.

*Recommendation 5.* Findings need to be disseminated through professional literature in order to ensure that such educational partnerships do not go unnoticed and that the lessons learned are shared.

*Recommendation 6.* Financial support for partnerships is necessary to ensure their continuation, as it is difficult to sustain a program based on volunteerism.

### ***Limitations and Considerations for Future Research***

The significance of these findings is limited by the small sample size in addition to the subjective nature of the study. Future evaluations should include the feedback of

museum educators, and ascertain student learning through formative and summative evaluations.

This thesis raises a number of questions that address issues of training and long-term viability. Two examples of questions for further investigation are: How can continuity be ensured so that the Graphic-Map Project is not a one-off program? Who will assume responsibility for training the architects in future? Despite these unresolved questions, future educational partnerships between the Architects in Action and the Canadian Center for Architecture can build on the strengths of the current partnership and learn from its weaknesses.

As Jane Remer (1996) points out: “Successful collaborations take time to mature” (p, 523). This partnership was evaluated at an early stage in its development; as such it would benefit from a follow-up study, to ascertain changes and improvement, once participating members have had a chance to build upon its initial successes. Partnering the work of the CCA with the Architect in Action is a promising way to improve the status of architecture in the curriculum and, in the strategy of supporting teachers with the implementation of post-visit activities, can serve as a model for other museums.

Educational partnerships are becoming increasingly important. The 1991 report, *Excellence and Equity: Education and the Public Dimension of Museums*, emphasized that: “in a world of diminishing resources museums have much to gain by collaborating with individuals, institutions and organizations in public service and public education” (AAM, 1991, p.19). The dearth of current research on this topic emphasizes the significance of such studies for guiding the future development and implementation of



similar initiatives. With appropriate support, educational partnerships involving schools, museums and local professionals promise a rewarding strategy for enriching the curriculum and transforming instruction.

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