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**Preservation Week Report:**  
**The High School for the Preservation Arts Project**

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**New Jersey Institute of Technology  
Center for Architecture and Building Science Research  
Preservation Week Report  
Spring 1998  
For the National Center for Preservation Technology and Training**

## **I. Introduction**

The High School for the Preservation Arts (HSPA) project is a multi-year undertaking of the New Jersey Institute of Technology (NJIT)/Center for Architecture and Building Science Research (the Center) in collaboration with the New York City Board of Education (NYCBOE), the World Monuments Fund (WMF), New York City Council Member Kenneth K. Fisher's office and the National Center for Preservation Technology and Training (NCPTT).

The overall goal is to develop a model secondary school curriculum dedicated to the training of skilled preservation artisans that will include an academic component and an industry/government sponsored field internship component. Upon graduation the students will have earned both a New York State Regents diploma and the equivalent of a one-year internship in their chosen restoration building trade.

The concept for a High School for the Preservation Arts (HSPA) developed from a study by the World Monuments Fund (WMF) on "Sustainable Urban Preservation - Developing a Model for New York." (See Appendix 18). The Study was an outgrowth of a 1993 WMF symposium "Employment Strategies for the Restoration Arts: Craft Training in the Service of Historic Preservation." This project was initiated in response to the needs identified during the symposium. In essence, there is a the need to train more people in the skills required for restoration and conservation in the United States; that market growth and lack of qualified persons entering the field is a growing concern amongst members of the professional and scholarly preservation community as well as building owners; that without this highly skilled, educated workforce, the sustainability of the preservation arts is endangered; and that this comes at a time when historic preservation is appealing to an ever-widening audience that is deeply concerned with the quality of urban life and rural development.

The objectives of the High School of Preservation Arts project are in harmony with current trends in education. The national School to Work initiative, enacted by the U.S. Congress in 1994, mandates a renewal of vocational education in the public school system. The initiative encourages education that unifies the academic and vocational training in the schools and directs this to relevant work place experience.

The main focus of this report is to describe and assess the first pilot curriculum development phase of this project through the spring 1998 Preservation Week Activities. The report will discuss the steps leading up to Preservation Week, teacher development,

Preservation Week itself, the exciting support garnered throughout the preservation community, evaluation and assessment of the pilot program, and the follow up plans for the second pilot "hands'on" Preservation Portfolio Internship Program (PPIP) in summer 1998. In addition, it will elaborate on the early stages of the creation of this project which, for the first time in this country, a high school program will be devoted to the teaching of the preservation arts. The experimental nature of Preservation Week is it's exploration of a methodology for teaching preservation-enriched materials in four subject areas -- English, Social Studies, Science and Art. The key elements of this methodology include the teacher development, and classroom/student experience at Preservation Week and the follow up summer internship project. The outcomes of this week's pilot program will be applied in context during the second Preservation Portfolio Internship Program in summer 1998 with the teachers working to design further classroom based teaching. The classroom teaching is being designed to be integrated into a four-year high school high school curriculum utilizing the context of the students' site experiences as shared points of reference.

The Center would like to thank the National Center for Preservation Technology and Training (NCPTT) for its support of Preservation Week and the World Monuments Fund (WMF), Council Member Fisher's Office, the New York City Board of Education (NYCBOE), the principal and staff of the High School of Arts and Business (HSAB) and the many others in the preservation community for their help and endorsement of this project.

## **II. Background**

The concept of a special High School for the Preservation Arts (HSPA) was envisioned by New York City Council Member Ken Fisher at the World Monuments Fund (WMF) Symposium "Employment Strategies for the Restoration Arts: Craft Training in the Service of Historic Preservation" in 1993. The social, political, and economic context needed to develop the framework for sustainable preservation training were developed by Conservator Kate Burns Ottavino, Director of Preservation Technology, Center for Architecture and Building Science Research (the Center) New Jersey Institute of Technology, as part of the WMF study on "Sustainable Urban Preservation - Developing a Model for New York, 1995 (See Appendix 18.) The study took as a premise the applicability of the environmental movement's theory of "sustainable development." The study identified four factors of sustainability applicable to sustaining preservation arts training. Included in these factors are the human, social, material, and natural capital that are the "capital stock" of sustainability. In the case of preservation arts training these are people; government, educational institutions and industry; the built environment; and natural environments. Using this framework, the study argued in favor of preservation arts training targeted at inner city youth, most accessibly reached in a high school environment.

In 1996, Ms. Ottavino, as director of preservation technology for the Center, encouraged the executive director of the Center, Ezra Ehrenkrantz, to commit the resources of NJIT

and the Center to the formation of such a high school curriculum for the New York City Board of Education (NYCBOE.) The Center recognizing the significance of the need for such a curriculum, as there is currently no high school program of this kind in the country, agreed to join with the WMF and Council Member Fisher in making this concept a reality. The Center prepared a "white paper" (See Appendix 14) on the creation of the proposed HSPA based on a four-year academic education with a hands-on internship as an integral part of its curriculum. The high school, with its specially created curriculum and partnership with industry, government and the not-for-profit sector financing student stipends, would serve as a sustainable model for preservation arts training. Students graduating from this unique program would have a choice to either continue at the college level in the academic disciplines or enter the preservation field with the equivalent of a one-year preservation artisan internship.

In September 1996, the Center presented the "white paper" to both the director of the Occupational Advisory Board of the NYCBOE and the chairperson of the NYCBOE. The Center was then asked by the NYCBOE to present this paper before the Occupational Board in October 1996 as well. The excellent reception of the concept by the members of the Review Board resulted in an approval to begin to develop the ideas presented. In the spring of 1997, the first curriculum development steps were taken in the formation of a High School for the Preservation Arts (HSPA) with the 1997 summer Preservation Portfolio Internship Program (PPIP).

The first summer internship program (PPIP) in 1997 was designed by the Center and arranged by the Youth Employment Services of NYC with the World Monument Fund (WMF) and sponsored by the Times Square Business Improvement District. Under the direction of conservator Kate Burns Ottavino, Director of Preservation Technology at the Center, and the host artisan sponsor, A. Ottavino Corporation, three students from the High School of Graphic Arts participated in the restoration of the statuary in the Times Square area: the George M. Cohan Monument, the Father Francis Duffy Memorial in Duffy Square; and the Flanders Field Memorial in DeWitt Clinton Park. The Preservation Portfolio Internship Program (PPIP '97) focused the students' efforts on the hands-on restoration work of the statuary while including the relevant academic components during the nine-week program. Students worked in the A. Ottavino stone shop as well as with their masons and conservators on-site. They also visited city agencies to meet the city officials responsible for the care of the monuments; to research the monuments using program materials; and to prepare a final report on the statues, which they presented as a group.

The first pilot program was very successful and provided the impetus for a more intense collaborative planning process for the development of a four-year High School of the Preservation Arts (HSPA) with the New York City Board of Education (NYCBOE) and the Center. In Fall 1997, several meetings and presentations were held at the NYCBOE with Chief Executive for Schools Programs and Support Services, Dr. Peg Harrington, and her assistants, Alan Dichter, Director of Special Projects, Winn Radigan, Director for Priority Schools, and Steve Feldman, Director of Occupational Education. These

meetings resulted in the NYCBOE deciding to commit their resources to the development of a preservation-based curriculum. Significantly, Dr. Harrington felt that the future High School of Preservation Arts should be developed with the New York City school system using the traditional three-step method of specialty school development: creation of a program within an existing school that will grow into an academy with a limited enrollment, and then into a free-standing school with an enrollment of about three hundred students. Another important factor in the NYCBOE's approving this project was the recent state requirement for all students to attain the standards of a Regent's Diploma for graduation. The NYCBOE aptly perceived the subject of historic preservation as a real way of academically motivating vocational students.

In fall 1997, the NYCBOE then designated the newly opened High School of Arts and Business (HSAB) in Corona Queens as the test-bed school. They authorized the development of a curriculum by four high school teachers within the HSAB and the conducting of Preservation Week by the Center at the HSAB in spring 1998 in preparation for a second pilot PPIP in the summer of 1998

### **III. Overview of Preservation Week Spring 1998**

The spring 1998 Preservation Week at the High School for Arts and Business (HSAB) was conducted by the Center for Architecture and Building Science Research (the Center) and was sponsored by the National Center for Preservation Technology and Training. Created by Congress, NCPTT is an interdisciplinary program of the National Park Service to advance the art, craft and science of historic preservation. NCPTT serves public and private practitioners through research, education and information management.

Once the NYCBOE assigned the High School for Arts and Business (HSAB) as the pilot school for the project, the Center met with the Principal, Stephen Drakes to seek his cooperation. His endorsement and enthusiasm of the project was key to the success of the spring program. He suggested that the Center meet with the entire HSAB teaching staff in January, during a teacher development day, to describe the project and give an overview of the concept of preservation oriented studies. On that day, the Center told the teachers it was seeking four volunteers to work with the Center in developing preservation based curriculum for Preservation Week as well as for the 1998 summer PPIP. Four volunteer teachers in English, Social Studies, Science and Art came forward after the meeting and the Center set up a series of teacher development sessions with them. Prior to the first teacher development session, the teachers were provided with preservation teacher development packets. (See Appendix 5)

Preservation Week consisted of a total of three days of activities, May 6 and 7 and June 3. The program (See Appendix 3) on the first two days, included guest lecturers from the leading preservation organizations around the country with the teachers' teaching eight preservation enriched classes in English, Social Studies, Science and Art, (two lessons for each of the four subjects) interspersed throughout the program. The speakers presented

to the 30 specially selected students from the HSAB and most of the guests showed slides or videotapes, which were very well received. Most guests also gave out information about their organizations that was much appreciated by the students. The teachers also provided handouts for the students.

The spring 1998 Preservation Week was the first formal academic exercise in demonstrating a preservation-enriched classroom experience through a series of integrated preservation based curricular classes by the New York City Board of Education. This was based on the recognition of the need to develop a framework for sustainable preservation arts training, and the concept of a special High School for the Preservation Arts to provide that framework. These were the first steps in the design and implementation of an on-going creation of a preservation program.

#### **IV. Preservation Week Activities**

##### **A. General preparation and activities for Preservation Week included:**

- Development of support from government, preservation community and NYCBOE
- Identification and development of funding sources
- Selection of Advisory Board
- Review of the standard high school curriculum and subject area identification
- Site identification for the internship project
- Teacher selection
- Development of the teacher development process
- Teacher development sessions
- Assignment development
- Assignment preparation and presentation
- Planning of preservation week
- Selection of guest speakers from the preservation community
- Certificates of Participation Ceremony
- Student selection for summer internships
- Teacher/student evaluations
- The Center for Architecture and Building Science Research's assessment.

##### **B. Preparation and Activities for Preservation Week by the Center**

1. Throughout the year prior to Preservation Week, meetings were held with the WMF, Council Member Fisher's Office, the National Center for Preservation Technology and Training, the New York City Board of Education (NYCBOE) and others in the preservation community. The NYCBOE endorsed the idea of a High School for the Preservation Arts (HSPA) and assigned the new magnet school, the High School for Arts and Business (HSAB) as the pilot school for this project. The Center staff then

met with the HSAB Principal, Stephen Drakes, to get his permission and cooperation. [His cooperation was a key to the success of the program.]

2. Funding was sought from the National Center for Preservation Technology and Training and others.
3. The Center held an introductory meeting at the HSAB in January 1998, at the suggestion of Principal Drakes, with the entire teaching staff of the HSAB during a teacher development day. The teachers received an overview of the subject of preservation as well as the project proposed by the Center. Representatives from the World Monuments Fund, the New York Historic Districts Council, and the New York City Board of Education made presentations as well. The presentation included videos of the Restoration of Brooklyn Borough Hall and the Times Square BID Monuments Conservation Projects from the summer 1997 PPIP. The Center asked for teachers to volunteer for both Preservation Week and for the summer 1998 PPIP. [Four teachers in English, Social Studies, Science and Art volunteered]
4. The Center reviewed the preservation literature (See Appendix 20) available along with the New York City Board of Education *Curriculum Frameworks* and the NYCBOE *Performance Standards*, First Edition. (See Appendix 19) They then prepared a representative sample of preservation material for the teacher development packets (See Appendix 5), and distributed it to the teachers for the first, of three, teacher development session. The teachers were informed that the 1998 summer Preservation Portfolio Internship Project (PPIP) would take place at a turn of the century structure, the Prospect Park Peristyle located in Brooklyn, New York, designed by Stanford White in 1904 in the classical style. It was suggested that they might use this structure to assist in integrating their curriculum development around a particular period and site. The teachers were asked to present two classes each during Preservation Week and to make assignments for the students.
5. Preservation Week planning. Speakers were scheduled from the preservation community and asked to give the students and teachers an overview of preservation from their perspective for Preservation Week. The guests were sent background information and then requested to bring handouts for the students, if possible. [Most did and they were well received.] In 1997 an advisory board was formed and they were invited to Preservation Week activities. Also invited were the NYCBOE representatives, representatives from city government and the Preservation community.
6. The Program for Preservation Week was prepared and handouts for students, teachers and speakers were placed in folders i.e. Preservation Week Program, background piece, list of participants. (See Appendix 2,3) The speakers were each given a small gift as a token of appreciation.
7. Each day of Preservation Week light refreshments were brought to the school by the

Center i.e. Danish in the morning, and lunch for the teachers and speakers to give everyone an intermission in the program and to get to know one another.

8. Certificates of Participation (See Appendix 13) for the students were prepared by the Center for the final Ceremony/Presentation meeting, June 3. After the presentations by the students, the student interns were selected based upon the quality and content of their presentations and notified by the teachers and the Center that they were eligible for participation in the 1998 PPIP. Refreshments were also brought to the school and served after the presentations.
9. Assessment Surveys were prepared by Professor Norbert Elliot, completed by students and teachers at the certificate ceremony, and assessed by the Center. (See Appendix 9)
10. Letters of thanks and reports about the project documenting the process were then prepared. (See Appendix 1 and 17)

#### **C. Student Selection for Participation in Preservation Week**

The students were selected by their teachers and approved by the principal at the third teacher development session with the Center Staff. The Center felt it was exciting to be part of the process and to be allowed the opportunity to place certain parameters around the internship selection process that encouraged the selection of students not solely on past performance but also on their potential. Overall, teacher assessments of how the students performed in each class area became reasons why or why not they selected some of the students for participation. [See also IV.D.3] (See Appendix 4)

#### **D. Teacher Development**

Four teachers from the High School for Arts and Business (HSAB) volunteered to participate in the project after the January 1998 introductory meeting: Lynda Aron (English); Bryan Serra (Art); Kevin Lawlor (History); Kieran McGuire (Science). Once the teachers volunteered and the subject areas defined, the Center prepared the preservation teacher development materials and sent them to the teachers. Three teacher development sessions were set up in March and April for the Center to meet with the teachers to discuss preservation in general and to present a perspective on how to adapt these preservation materials into their outlines, lesson plans and classes for Preservation Week. The sessions were held in the principal's conference room after the close of the teaching day, at the request of the teachers.

The participation of the teachers cannot be overvalued since the teachers did this over and beyond their already heavy workload. As an incentive, the volunteer teachers had been offered three master level course credits for their participation, and the New York City

Board of Education arranged an eight-week summer stipend for them to enable their ongoing participation in the 1998 summer Preservation Portfolio Internship Program (PPIP '98).

### **1. First Teacher Development Session**

The first teacher development session was an introductory and planning session. The agenda for the meeting included: (See Appendix 15)

- A synopsis of the rationale for preservation-enriched curriculum
- The identification of the summer 1998 Preservation Portfolio Internship Program (PPIP) site and a history of the site (i.e. the Prospect Park Peristyle, designed by Stanford White in 1904 in the classical style.)
- An initial set of assessment tools for measuring the success of the project
- Teacher requirements for the project (five lesson plan outlines and two full lesson plans)
- Proposed time-line and course teaching schedule for the Preservation Week event

The first order of business was the teachers' concern about the schedule, theirs and the students. They indicated that the realities of the students' schedules (no two students had the same schedule) and the limitations of space (there is no auditorium for general assembly at the school) would be real hurdles in effecting the program. Instead of the original idea of having a general assembly for all students at the HSAB, a compromise was struck to limit the number of students to 30-40 and the size of the project to three days.

The next order of business was a discussion of Preservation Week. The Center suggested that the teachers each give two class lessons with preservation enriched curriculum in their subject over the two days (one each day). Information on the site for the summer 1998 PPIP was provided, i.e. the Stanford White 1904 Prospect Park Peristyle. It was requested that the teachers focus their lessons within the context of this site and that this could include literature on the history of the period, the life of Stanford White, illustrated texts on classical architectural vocabulary, and conservation science texts focusing on the materials of the Peristyle including terra cotta and stone.

The teachers continued the discussion taking the preservation material as the point of departure. They talked about what they found relevant about the subject of historic preservation for themselves and the concept of integrating the subjects of English, Art, History, and Science when creating their lesson plans.

This was a very important first meeting. It allowed the Center and the teachers to get to know each other and to discuss what was involved in the project. A real interchange of ideas took place and the teachers began to express concerns about time, their schedules, the student schedules and what the project really entailed. This enabled the Center to

appreciate the teachers' heavy schedules and assess the difficulties of working in a busy urban school with its limited resources and myriad of challenges both academic and social.

## **2. Second Teacher Development Session**

The agenda for the second session included:

- Preservation Week Schedules and Planning Information
- Additional PPIP '98 site materials
- Discussion of the Teacher's Class outlines and lesson plans
- Student Participation selection process

Center handouts included a tentative Preservation Week Schedule, additional information about the Peristyle, and about the Vaux and Olmsted design for Prospect Park.

The Center informed the teachers about the PPIP '98 plans in detail. Teachers would be expected to work 80 hours over the summer including time on site and the creation of four integrated lesson plans per subject spanning the four-year curriculum. Three student interns would be identified through a selection process that would include the teachers and the Center. The interns would be expected to work for seven weeks with stone artisans from the A. Ottavino Corporation at the site from 9-3 each day, and on rainy days in the A. Ottavino Corporation Shop. Both teachers and students would be expected to attend relevant field trips during the course of the summer as well.

The Center and the teachers then developed a plan for student intern selection, which included participation in Preservation Week, completing a written assignment, making an oral presentation of the assignment and the availability of the students for participation during the summer. A written assignment for student presentations integrating each of the four subject areas was then discussed as well as the Preservation Week schedule.

The rest of the second Teacher Development session involved a discussion of the materials and outlines submitted by the teachers (See Appendix 6.) These were critiqued by the Center with an eye toward helping the teachers build on the cross-linking of disciplines that they had already begun. This brainstorming session was very exciting and many ideas flowed on how to connect with each other, texts, literature, poems vocabulary, architectural sites, styles and the cultural and historical context of the turn of the century period.

The Center has found that the key to the process of designing the academic curriculum relevant to the preservation process is to focus on specific time periods through the use of sites thus enabling teachers to employ a wide range of literature, history, building/object types, materials, and technology in the design of their classroom lectures while also enabling them to fulfill the Regent's requirements.

### **3. Third Teacher Development Session**

The agenda included:

- Selection of Students for participation during Preservation Week
- Finalization of the Preservation Week Schedule
- Draft Assignment for the students as a means for selection for 1998 Summer PPIP (See Appendix 8)

Student selection issues were the first order of the day. It was decided that the teachers would select a group of students with input from the Center and approval by Principal Drakes and that the program for Preservation Week would take place in the art room, which is one of the largest spaces in the school. Since it would only be a small representative group of students from the larger student body, it was decided that the two days would be considered cultural enrichment and the students would be exempted from their regular classes for the two-day period. In effect, it was considered an "in-house field trip."

The remainder of the session was engaged in the teachers' identification of eligible students. First the criteria for selection was established and then the teachers proceeded to review the students in light of their possible participation in the 1998 summer PPIP, their willingness to write a report from the assignment given, and to make an oral presentation. The criteria for selection were based on academic progress, creativity, attendance, punctuality, and demeanor. By the end of the session, thirty-five to forty students were identified by the teachers for possible participation. The teachers then decided who among them would speak to which students to ask them if they would be interested. [In the end, 30 students participated - See Appendix 4]

This session was in some ways the most important as it provided an opportunity for the teachers to discuss the students in a fresh context. The Center was given the opportunity at this time to place certain parameters around the internship selection process that encouraged the selection of students not necessarily on past performance but on their potential. At this time the role of sustainability in the overall goals of the High School for the Preservation Arts model became most evident. Students who did not appear regularly in class or on time were not eliminated from Preservation Week if the teachers felt that they would find the subject matter stimulating. The Center made clear one of the goals of the internship process is to inculcate the values of the working world into students by involving them in interesting projects with dedicated people. The teachers appreciated and were very receptive to this opportunity for their students. [See also IV C]

### **E. Preservation Week**

## **1. May 6 and 7 Preservation Week Program (See Appendix 3)**

Preservation Week in May 1998 was conducted as a prelude to the Center's second Preservation Portfolio Internship Project, (PPIP '98.) The intention of the spring semester's Preservation Week was to introduce the academic subject matter of preservation to students in the classroom in order to prepare them for the summer's "hands-on" internships. Prior to the event, the students were told that three students would be selected from the program based upon their classroom participation, assignment performance and interest in the subject matter and that those selected would work with the host artisan sponsor, A. Ottavino Corporation.

Over the two days, twelve guest lecturers from many of the leading preservation organizations from around the country provided the students and teachers with an overview of the field. Most showed slides or videotapes and gave out handouts about their organizations. The students very much enjoyed receiving the information pieces and many took them home to show their parents and friends. Interspersed throughout the two days, the teachers gave two classes each in their subject with a total of eight classes by the four teachers (English, Social Studies, Science and Art.) The Center videotaped the proceedings and took photographs throughout the two days.

### **a. Participating Students (See Appendix 4)**

Thirty focused and attentive ninth and tenth graders attended the two-day program. There were eleven young women and nineteen young men ranging in age from fifteen to seventeen.

### **b. Teacher Lessons Plans and Classes (See Appendix 6)**

The four HSAB teachers (English, Social Studies, Science and Art) presented one lesson each day totaling eight preservation enriched classes (two per subject) interspersed among the twelve leading local and national preservationists in the field of historic preservation.

The teachers, Lynda Aron (English); Bryan Serra (Art); Kevin Lawlor (History); Kieran McGuire (Science) became progressively more enthusiastic about the project throughout the teacher development sessions and in their preparation for their classes for Preservation Week. They focused their lessons around the period of the turn of the century and the Stanford White Prospect Park Peristyle, architectural concepts and vocabulary, and the idea of preservation, as discussed during the Teacher Development Sessions by the Center. Within the context of the selected site, it became clear that the site was a unifying vehicle for linking the four subjects and integrating the four disciplines.

The Center found that a key to the process of designing academic curriculum relevant to the preservation process was the focusing on specific periods thus enabling teachers to develop the academic component of the high school curriculum required for the Regents.

The Center also found that focusing on specific sites enabled the teachers to integrate their disciplines while satisfying the broader educational parameters measured by standardized testing, while still maintaining a preservation focus.

Using the subject and period of the Prospect Park Peristyle, the teachers were able to illustrate form, structure, and meaning in English, Art, History and Science.

In **English**, Ms. Aron selected the poem, "Patterns" by Amy Lowell to generate student discussion on form and structure as methods of social control and the resultant impact that it can have on our private lives. She also referred to sections from two books by William Dean Howell and Henry Adams and was able to elicit a lively discussion with the class about these works. She related much information about the period and architecture in the process. One of the classroom exercises included student role playing from self-authored scripts. (See Appendix 6, IV)

In **Art**, Mr. Serra took the classical form of the architecture of the Peristyle and showed the students how these forms have evolved today and are used as graphic logos. He did a brief introduction to Architectural History and Art and handed out two pages on visual elements of art i.e. Greek, Egyptian and Roman forms. Using this as background, he discussed with the class the similarities and differences found in these forms. He also showed slides he had taken of buildings exhibiting various and numerous art/architecture historically significant elements in Corona Queens, the neighborhood of most of the students, which included many of the classical elements already discussed. In the final hour of the second day, he had the students draw classical elements that they had learned about. (See Appendix 6, II) From the assessment survey, the students seemed to appreciate this "hands-on" part of the class. (See Appendix 10)

In **Social Studies**, Mr. Lawlor used his family home of several generations to create group exercises in dating buildings from photographic clues, introducing the subject of memory to develop a sense of personal history and to demonstrate how one determines if something should be restored. He also used an old pair of his pants to focus the students on the need for "restoration" and why he would want to restore these old pants in the first place. He also showed slides of two different interiors, asked the students "what do you see" to try to get them to employ, sharpen and ultimately to put to use their powers of observation. The class had an exceptionally spirited discussion from this. He also asked them to write about what they saw at first and then to write about any changes they had in their ideas after the discussion. (See Appendix 6, III)

In **Science**, Mr. McGuire used two sample terra cotta pieces that Ms. Ottavino supplied from the Peristyle. He discussed the materials, the chemistry of materials, the physics of construction, and how they all related to the Prospect Park Peristyle. Through the use of the terra cotta materials he was able to generate a discussion about dirt and paint removal, especially graffiti, from the stone and the need for adequate safety equipment and procedures. (See Appendix 6, I)

### **c. Student Assignments (See Appendix 7 and 8)**

Overall, the students learned a great deal from the speakers and their teachers and were able to integrate and apply this newly gained information into their assignments and presentations for the summer PPIP'98. For instance, the English teacher gave the students a role-playing assignment on the first day for presentation the second day. The assignment asked the students to write a scenario on one of four premises based on what they had learned about preservation so far. (See Appendix 7). Six groups of students role-played their scenarios before the group on the second day. Through their role playing scenarios, it became clear that they had learned a great deal in just one day.

The students were also given an assignment at the end of the second day. They were told that students interested in applying for the summer 1998 PPIP would be expected to write a report from the assignment and then make a presentation to the selection committee as part of the criteria for internship selection. They were also told that they should indicate their interest in the summer internship at the time of the presentation, June 3. (See Appendix 8)

### **2. Preservation Award Ceremony and Student Project Presentations, June 3, 1998**

Following the May activities, most of the students who participated in Preservation Week met in the school Library the last period of the day on June 3 for an "Award Ceremony and Student Presentations." (See Appendix 12) The Center Director of Preservation Technology, Kate Burns Ottavino, and the Principal of the HSAB, Stephen Drakes, gave a few words of welcome. Six of the students (See Appendix 4) prepared written reports and presented them to their peers and the internship selection committee composed of Principal Drakes, the teachers and the Center Staff. The students prepared their presentations on the assignment entitled: "You have been given a million dollars to restore a building. Pick a building and tell us why it is worth restoring, why it needs to be restored, and how you would spend the money to restore it." (See Appendix 8). Their reports included a range of urban structure types including the 1964 World's Fair Globe, Yankee Stadium, the Empire State Building, Queens Boulevard, The Brooklyn Bridge, and one student's own apartment building. (See Appendix 8) Many went the extra mile to prepare these reports by meeting with the school librarian during lunch period as well as with the Art, the English, and the Social Studies teachers on their own time. The teachers reviewed the student reports and helped them prepare for the presentations.

The overall quality of the reports and presentations was excellent and the students worked hard and were proud of their accomplishments. After the presentations, Principal Drakes and Ms. Aron handed out Certificates of Participation (See Appendix 13) prepared by the Center to all the students who attended Preservation Week. Refreshments were served and the students and teachers were requested to fill out the assessment surveys (See Appendix 9 & 10). Throughout the afternoon, the presentations were videotaped and the students were photographed as they received their awards.

### **3. Selection of the 1998 Summer Interns for the PPIP '98**

Immediately following the June 3<sup>rd</sup> Ceremony, the teachers and Center staff met to select the three students for the summer internship. The criteria used were participation, written report, presentation and availability of the students to participate. Of the six presenters, (See Appendix 4) one was a young women the rest young men (5). Unfortunately the young woman had personal commitments for the summer. The committee then selected four of the students and requested the teachers to talk with them to see who would be available to participate. The students who agreed to participate were then sent letters of confirmation and congratulations with information about the summer PPIP'98. [The two students who will participate are: ninth grader, Justin Hilliard, and tenth grader Filipe Gibaldo. The summer stipend provided by the Landmarks Preservation Foundation was a very important incentive for the students' participation.]

After the student internship selection, the discussion continued onto the summer internship program, teacher and intern responsibilities, and the setting up of a teacher workshop on June 23 to prepare for the 1998 summer PPIP. The teachers were each given several handouts at this time including: Summer Internship Schedule; Summer Internship Project Overview of Teacher Involvement; Technical Preservation: A Diagram; Science Course Guidelines, a sample completed survey form from the 1997 PPIP, and maps to the site. (See Appendix 16)

## **V. Assessment and Analysis**

### **A. Assessment Survey**

The assessment of the Students and Teachers was developed and assessed by the Professor of English and Chair of the NJIT Department of Humanities and Social Sciences, Professor Norbert Elliot. Professor Elliot is a former Director of the Northeast Texas Writing Project and has extensive experience in working with elementary and high school teachers in the development of curricula. He is a leader in assessment and evaluation and is a co-author of *A Program Development Handbook for the Holistic Assessment of Writing*.

#### **(1) Assessment of the Students (See Appendix 10)**

The first part of the assessment asked students to respond to questions on each of the four lessons (English, Social Science, Science, and Art) in the areas of clarity of the lesson, its ability to engage interest, and its usefulness. Nineteen students responded to the survey.

The results are presented below:

#### The English Lesson (Ms. Aron)

1. Please rate the clarity of the English Lesson.

5                      4                      3                      2                      1

Extremely Clear 10 responses	Very Clear 7 responses	Mostly Clear 3 responses	Somewhat Unclear	Totally Unclear
---------------------------------	---------------------------	-----------------------------	------------------	-----------------

2. How interesting did you find the English Lesson?

5 Extremely Interesting 3 responses	4 Very Interesting 10 responses	3 Somewhat Interesting 6 responses	2 Mostly Boring	1 Totally Boring
--	---------------------------------------	---	--------------------	---------------------

3. How useful was the English Lesson in helping you learn more about preservation?

5 Extremely Useful 4 responses	4 Very Useful 12 responses	3 Somewhat Useful 3 responses	2 Not Very Useful	1 Useless
--------------------------------------	----------------------------------	-------------------------------------	----------------------	--------------

The Social Studies Lesson (Mr. Lawlor)

4. Please rate the clarity of the Social Studies Lesson.

5 Extremely Clear 15 responses	4 Very Clear 4 responses	3 Mostly Clear	2 Somewhat Unclear	1 Totally Unclear
--------------------------------------	--------------------------------	-------------------	-----------------------	----------------------

5. How interesting did you find the Social Studies Lesson?

5 Extremely Interesting 9 responses	4 Very Interesting 8 responses	3 Somewhat Interesting 2 responses	2 Mostly Boring	1 Totally Boring
--	--------------------------------------	---	--------------------	---------------------

6. How useful was the Social Studies Lesson in helping you learn more about preservation?

5 Extremely Useful 10 responses	4 Very Useful 7 responses	3 Somewhat Useful 2 responses	2 Not Very Useful	1 Useless
---------------------------------------	---------------------------------	-------------------------------------	----------------------	--------------

The Science Lesson (Mr. McGuire, Ms. Ottavino)

7. Please rate the clarity of the Science Lesson.

5 Extremely Clear 2 responses	4 Very Clear 9 responses	3 Mostly Clear 7 responses	2 Somewhat Unclear	1 Totally Unclear
-------------------------------------	--------------------------------	----------------------------------	-----------------------	----------------------

8. How interesting did you find the Science Lesson?

5	4	3	2	1
---	---	---	---	---

Extremely Interesting 2 responses	Very Interesting 2 responses	Somewhat Interesting 12 responses	Mostly Boring 3 responses	Totally Boring
---	---------------------------------	---	------------------------------	----------------

9. How useful was the Science Lesson in helping you learn more about preservation?

5 Extremely Useful 4 responses	4 Very Useful 11 responses	3 Somewhat Useful 4 responses	2 Not Very Useful	1 Useless
--------------------------------------	----------------------------------	-------------------------------------	----------------------	--------------

#### The Art Lesson (Mr. Serra)

10. Please rate the clarity of the Art Lesson.

5 Extremely Clear 13 responses	4 Very Clear 6 responses	3 Mostly Clear	2 Somewhat Unclear	1 Totally Unclear
--------------------------------------	--------------------------------	-------------------	-----------------------	----------------------

11. How interesting did you find the Art Lesson?

5 Extremely Interesting 10 responses	4 Very Interesting 9 responses	3 Somewhat Interesting	2 Mostly Boring	1 Totally Boring
---	--------------------------------------	------------------------------	--------------------	---------------------

12. How useful was the Art Lesson in helping you learn more about preservation?

5 Extremely Useful 9 responses	4 Very Useful 7 responses	3 Somewhat Useful 3 responses	2 Not Very Useful	1 Useless
--------------------------------------	---------------------------------	-------------------------------------	----------------------	--------------

As this part of the survey reveals, students were most positive about the information presented during Preservation Week. On each of the 12 questions, students largely gave scores of 5 or 4 to each item. Only the Science Lesson appears to have drawn a rather mixed response.

If we take the response of “extremely interesting” to be the highest score on the survey, we find that the Social Science Lesson was the clearest. The English Lesson the most interesting, and the Social Science and the Art the most useful. Overall, the Social Science Lesson received the highest scores, followed by the Art Lesson, the English Lesson, and the Science Lesson.

In the second part of the survey, students were also asked to assess how interesting they found the information presented by the guest speakers. That information is provided below:

5 Extremely Interesting	4 Very Interesting	3 Somewhat Interesting	2 Mostly Boring	1 Totally Boring
-------------------------------	-----------------------	------------------------------	--------------------	---------------------

13 responses

2 responses

2 responses

The overwhelming response is that students found the presenters extremely interesting.

In the final part of the survey, students were asked what they liked best about Preservation Week. They were also asked how Preservation Week could have been improved. They answered that they liked the practical information presented best. As one student wrote, "The most interesting things were the guest speakers and knowing that there are opportunities for jobs for us in preservation in the future." And, while many felt that the Week was fine as is, the most reported criticism was that students felt that more attention to hands-on work might have been useful.

## **(2) Assessment of the Teachers (See Appendix 9)**

The attitudes of the teachers toward Preservation Week were also assessed by means of open-ended questions. The four teachers responded:

1. What aspects of preparation for Preservation Week did you find most helpful? Are there planning aspects that could have been improved? The four teacher's replies that they liked the multidisciplinary work (all teachers) the best, especially the brainstorming sessions (English) in which the lessons could be planned and critiqued.
2. Did you find that the materials presented were able to be integrated meaningfully into the course you were teaching? While two teachers affirmed that the materials could be readily integrated (Social Studies, Art), one teacher noted (English) that the small number of students she reached was somewhat of a problem and the other (Science) noted that chemistry and physics are more closely related to the subject.
3. What were most meaningful aspects of Preservation Week? Two teachers (Social Studies, English) noted that they appreciated the opportunity to team teach ("seeing colleagues in action was a treat"). Noted also were the students' interest, the number and diversity of presentations, and the exchange of information. One teacher (Art) commented that the breadth of the scope of the preservation "expanded student and adult minds"; and another teacher (Science) felt that the focus should have been on Latin architecture because of the predominantly Latin student population.
4. How would you judge to contributions make by the various guest speakers? Did you view this as an integral part of the process? While three teachers praised the guest speakers, the other (Social Studies) expressed reservation ("some of the topics went over the heads of the students").
5. How do you think the students responded to Preservation Week? All the teachers thought that preservation week went very well. One teacher (English), however, expressed some reservation about the nature of the summer internship not being absolutely clear.

6. Do you think that the concept of preservation is useful as a vehicle for curriculum building? All the teachers replied that they thought the concept was useful.

7. Ultimately, how do you view the value of preservation as it applies to secondary education? One teacher (Social Studies) found that the concept of preservation was useful; however, the teacher also felt that it was difficult for a thirteen-year-old to choose a career option. Three of the other teachers had no reservations. "It is truly a foundation for much of education," one (English) wrote. "It brings an awareness of safety, beauty, history, and citizenship that hopefully will last a lifetime and create contributions that will last a lot longer."

8. Now that the project is completed, do you think you will use any of the concepts introduced during Preservation Week in future teaching? All of the teachers reported that they would use the concepts in the future. One teacher (Social Studies) noted that "the interdisciplinary experience will inspire me to use the same approach in the future."

**B. Analysis and reflections about Preservation Week by English Professor Kimmelman from NJIT's Department of Humanities and Social Science**  
(See Appendix 11)

Professor Burt Kimmelman is a professor of English at NJIT and attended the teacher development sessions and Preservation Week. He works with Professor Elliot and recorded his observations and assessment of Preservation Week as follows:

Preparations for Preservation Week included selection and invitations to guest lecturers made up of experts in the preservation and restoration field, and politicians supportive of the preservation and restoration effort. As well, students had to be selected to participate in the program. It is significant that these students were not necessarily selected because of their intellectual prowess, but rather for a wide range of factors, some of which had nothing to do with, necessarily, the success of the Week. For instance, some students were chosen for participation because their teachers felt that the nature of this "special" event would inspire and energize them, and that these were students who needed such an event in order for them to realize their potentials; other students of course were selected because their prior achievements, it was felt, needed to be rewarded, and/or because they demonstrated that these students would be sure to be in attendance for the full panoply of events and would be engaged by them. In any case, the faculty participants from both NJIT and HSAB, as the actual week approached, planned extensively both together and separately, and were full of excitement about it.

Preservation Week was a smashing success. In fact, it far exceeded all of the most optimistic expectations. Even more, the entire event evolved in ways no one had anticipated. What especially is noteworthy now, in hindsight, was the unexpected synergy the Week created, in which the series of events, in their planning and execution, brought students and faculty together with experts, administrators and politicians, according to a new vision for the future of preservation in New York City and ultimately around the country. To be sure, each of these groups came away from the Week with a

deepened appreciation of the problems, urgency, but also the hope for Preservation. Furthermore, it is fair to say that each group came particularly to appreciate the roles that others must play within the total preservation effort.

The success of the Week, in other words, can to a great extent be measured by the degree to which it developed as something that met the Center's expectations. An expanded community came into being. Again, the essence of this expanded community was a product of the synergy created through an event shared by its participants, many of whom never knew one another before. The Week turned out to be a learning experience in the narrow sense, of course, students internalized the basic issues and essential practices of preservation and restoration, and that they came to appreciate how vitally important preservation is, and how both prolific and pressing an activity it has become, around the world and especially in the New York City area. As well, in the broad sense of there being at least four capital stocks: human--groups of participants comprised of: students, teachers, and ex-cathedra experts from the world of preservation; social --the policy makers from the government sector; material--all who participated came to understand and appreciate the role of the students; natural-- fashioning and maintaining a healthy and dynamic preservation movement now and in the future. Teaching them and training them for jobs in the field is truly worth the investment!

In the largest view, what came out of the Week was the realization that preservation can only be sustained when we fully realize all of our urban environmental capital stock. the week demonstrated that there is reason to entertain the greatest hope that urban preservation will not only be sustained but will flourish. Such a point of view is fostered by the enthusiasm, intelligence and industry of the Preservation Week participants. The faculty's well thought out pedagogical designs was implemented as planned. The Art, Social Studies and English lessons introduced to the students, within the context of the Preservation theme, to the fundamental dynamics of art, architecture, theory of aesthetics, literature, history and economics. The science combined issues of practice and theory of chemistry and physics as well as engineering design, revolving around actual problems that restorationists confront. combined issues of practice and theory of chemistry and physics as well as engineering design, revolving around actual problems that preservationists confront. Yet the HSAB teachers, NJIT staff, and professional speakers were unprepared for the depth and variety of student response ( see "Outcomes" below).

The sequence of lessons, presentations, as well as student's activities was intense. It soon became apparent, moreover, that the Week's fulfillment would ride on the ability of the students to pay prolonged attention to what was at hand. As they grappled with the various concepts being taught in each of the lessons they continually exhibited an exuberance and incisiveness about the subject matter. They not only gave their respect and attention to their teacher and each of the guest speakers, but also displayed to a great extent the fact that they were moved by the presentations. The students' work in response to the two days of talks and lessons bears this out, as do the videotapes of the Week. The faculty from both HSAB and NJIT were equally impressed by the students and by the guest speakers as well. Remarkable also was how pleased the speakers were with audience response. There were invariably many questions, followed by answers that prompted further questions. It is fair to say that everyone came away from this experience

with a firm belief that preservation is a promising field of endeavor, generally, and specifically, and that a High School for Preservation Arts should and will soon become a reality.

## **VI. Conclusion**

The viability of creating the sustainable "capital stock" that the 1993 WMF symposium so clearly identified was very clearly nurtured by the Spring Preservation Week at the High School for Arts and Business. The program was a profound success on an academic, social and professional level. Academically, the response of the school system, the teachers and the students was a testament to the timeliness and the appropriateness of the introduction of this type of education within the public school system. The subject matter of preservation is universally compelling. It crosses ethnic boundaries and creates the curiosity that leads to the desire for learning needed by students to achieve at both an academic and professional level. The quality of the reports produced by the students very clearly speaks to this first and most important level.

The program was a success at the social level. Preservation reaches all levels of society and embraces both the built environment and its inhabitants. The guest speakers, all of whom came at their own expense to present to the students, came from the national, state and local preservation communities. The volunteer teachers put in many long hours to mold the framework of their lesson presentations. A great part of the success of the program for the students came from the ability of the teachers and the guest speakers to transmit their personal commitment and interest to the students who then (the students) demonstrated their own commitment to the material by the quality of their presentations.

On a professional level the program provided a platform for the creation of the first set of interdisciplinary lesson plans for students at a high school level. The preservation-infused lessons presented to the students incorporated all of the elements required for the quality of education needed for Regent's level scholarship in New York State. The summer 1998 PPIP program is designed to build on this initial base. A second aspect of the professional level vocational. The guest speakers illuminated and expanded the vision of what preservation is for the entire group. Students who will attend the developing high school will be entering a workplace with a myriad of choices --from architecture, masonry, museum studies to name only a few that were expressed.

The materials and experience gained in this program are already being used by the teachers, the Center and the students as the summer 98 PPIP gets underway. The products of this current work and that of the spring will be incorporated in the school classroom experience in the fall at HSAB and will serve as the basis for a larger academic developmental grant application.

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## APPENDIX 1

## PRESERVATION WEEK REPORT MAY 6 AND MAY 7, 1998

The kickoff of the Spring and Summer Internship Preservation Arts High School project took place at the High School of Arts and Business, Corona, Queens, on Wednesday May 6 and Thursday, May 7, 1998. The two days of preservation-related activities turned out extraordinarily well overall. Most of the activities and classes were videotaped and photographs were taken of speakers, teachers and students. Kate Burns Ottavino, Ruth P. Baker and Burt Kimmelman represented NJIT.

### Wednesday, May 6, 1998 (First Day)

Activities began at 7:30 a.m. in the art teacher's, Bryan Serra, Art Room. There were 31 students who had been selected to participate in the Preservation Arts Education project by the four (4) volunteer teachers (English: Lynda Aron; Social Studies: Kevin Lawlor; Art: Bryan Serra; Science, Kieran McGuire.) Kate Ottavino brought refreshments for the students, teachers and guest speakers (bagels, brownies, danish) and lunch for the speakers, teachers and staff. (see appendix 2)

Each student, teacher and speaker received an NJIT red (student) or dark blue (teachers and speakers) folder that included: the Program for May 6 and May 7; a list of participants; an NJIT/CABSR brochure and a summary of the project "Developing a High School for the Preservation Arts." They also received a ruler (a gift from the Alumni Assoc.) and an NJIT pencil. The speakers also received a gift presentation folder.

The Principal, Stephen Drakes, welcomed the students and speakers and spoke of the relationship between the Preservation Arts High School Project, the HSAB, and NJIT's Center for Architecture and Building Science. Kate Burns Ottavino, Director, Preservation Technologies, CABSR/NJIT, introduced the subject of Preservation Arts and then introduced the speakers throughout the first and second day's program. Kenneth Fisher, New York City Councilmember from Brooklyn's 33'd District, then gave a brief history of the project since its inception (in 1997), and its importance to the students when they seek productive careers.

The morning continued with an exciting array of speakers (see appendix 3) from many of the most prestigious organizations in the preservation world. Most speakers brought trays of slides to show the students and all brought handouts ranging from brochures, handbooks, booklets, badges etc. Many of the speakers stayed for the entire morning and were delighted with the overall event. Fran Gale from the NPS, National Center for Preservation Technology and Training, the organization that provided a grant for Preservation Week activities, spent the entire day at the school.

Three of the teachers participated throughout the morning interspersed among the outside invited speakers. The teachers' excellent presentations focused on the late 19<sup>th</sup> century, the idea of preservation/restoration, and the Prospect Park Peristyle which will be the site used for the summer 1998 Portfolio Restoration Internship Program (PRIP). (See outlines and curriculum.)

The English teacher, Lynda Aron, used a handout she had given the students the day before, a poem, "Patterns," by Amy Lowell, and pages from two books by William Dean Howell and Henry Adams respectively. She was able to elicit a lively discussion with the class about these works, and related much information about the period and architecture/restoration in the process. She then assigned a role-playing Restoration Project, for the next day.

The Social Studies teacher, Kevin Lawlor, showed two different slides of two entirely different interiors and had the students work in groups to discuss them from the vantage point of "what do you see," in other words prompting students to employ, sharpen and ultimately to put to use their powers of observation. The class had an exceptionally spirited discussion. He then asked them to write about what they saw at first and then to write about any changes they had in their ideas after the discussion.

The Science teacher, Kiernan McGuire, used two sample Terra Cotta pieces that Kate Ottavino had supplied. He discussed the materials, the chemistry of materials, the physics of construction, and how they all related to the Prospect Park Peristyle Croquet Shelter and what the interns will do in the summer in the restoring of the shelter. He also discussed removing dirt and graffiti from the Terra Cotta.

After lunch, the Art teacher, Bryan Serra, held a class on an introduction to Architectural History/Art. He handed out two pages on visual elements of art--Greek, Egyptian and Roman forms and had a class discussion on the similarities and differences found in these forms. He also showed slides he had taken of buildings exhibiting various and numerous art/architecture historically significant elements in Queens, some in Corona, the neighborhood of most of the students. Many of the slides showed classical elements, which had been discussed in the first part of the class.

#### Thursday, May 7 (Second Day)

The day started with refreshments, and the students were once again focused and interested in the day's events. The teachers gave three classes in the morning.

First, Kate Burns Ottavino pinch-hit for the Science teacher (who had become ill). She discussed safety and other aspects of working on a restoration site as well as the need for care in using chemicals and the need for safety equipment.

The English teacher followed. The students did role playing (see attached assignment and samples of their role playing "scenarios.") They did an excellent job and seemed to enjoy this activity. They also showed that they understood much of what was going on and were able to be creative with the materials. The class continued with more literature of the period, and vocabulary (e.g., what does "Prospect" mean, "refuge," "retreat" and "resurgence" etc.?) and similarly with architecture terms. She also discussed careers and how lucky this class was because it was the only class in the country to have the opportunity to learn about the possibility of a career in the preservation/restoration trades.

The Social Studies teacher then asked the class, "Why do people restore things?" He showed an old pair of his pants that is in need of repair as well as old trophies and a family picture taken in front of an old house, circa 1895. He spent a lot of time on the latter, discussing the location of the house, the dress of the period, and the fact that the house had been abandoned in the 1930's. He then asked why anyone would now want to restore the house. The students really got involved and had an excellent discussion.

After the lunch break, the formal part of the program began again with the two speakers from the World Monument Fund. (see program appendix 2). They were followed by many superb presentations by the invited speakers. During the afternoon, the Art teacher, Bryan Serra, had his class draw from an architectural model. (Copies of the drawings are at the CABSR office.) The students then discussed their ideas and concepts and how they fit into the first day's class.

At the end the teachers presented the Preservation Week assignment ( see appendix 3) and explained that students who are interested in a summer internship should indicate this when they turn in their assignment on May 21. The teachers will select the best work from the assignments turned in and ask the student authors to make an oral presentation to the committee that will then select three students for the summer PPIP.

## APPENDIX 2

### Center for Architecture & Building Science Research and the World Monument Fund

#### *DEVELOPING A HIGH SCHOOL FOR THE PRESERVATION ARTS*

##### **Background**

The Preservation High School Project grows out of the symposium, *Employment Strategies in the Restoration Arts Craft Training in the Service of Historic Preservation*, sponsored by the World Monument Fund (WMF) in 1993. The symposium suggested that preservationists join forces with existing training programs, strengthen the socio-economic rationale in support of historic preservation, and raise public and political awareness about the value of historic preservation. In addition to these objectives, New York City Council Member Ken Fisher envisioned the need to "establish a high school dedicated to preservation training." The WMF, acting on the directives of the meeting, enlisted Kate Burns Ottavino to develop a *Sustainable Model for Restoration Arts Training*. The current Preservation Arts High School development project is based on this *Sustainable Model*.

##### **Current Project Status**

The NJIT Center for Architecture and Building Science Research (CABSR) is currently working with the World Monuments Fund, New York City Board of Education, and Councilmember Ken Fisher's office to make the goal of the Preservation High School Project a reality in New York City. In order to realize this goal, the Center has devised the parallel track approach of an internship program and a high school curriculum development

This year's internship program will include a *Preservation Week* at the High School for Arts and Business in Corona, Queens and a summer internship for three students who will be selected on their performance during the spring. The Center anticipates partial support for the 1998 PRIP program from the National Center for Preservation Technology and Training of the National Park Service.

On the curriculum development track, the NJIT Center is working with the NYC Board of Education's K-12 Curriculum Frameworks to outline the curriculum framework for Preservation High School. The threefold goal is to create a complete high school curriculum that will meet the mandatory requirements of the New York State Board of Regents, qualify students for admission to post secondary programs, and provide them with the equivalent of a one year trade internship. Once the Preservation High curriculum outline has been certified to align with these criteria, the Center will be in a strong position to seek funding to support the development of specific components from appropriate sponsors such as the National Endowment for the Humanities and the National Science Foundation.

##### **Conclusion**

The development process of Preservation High will proceed according to the stages prescribed in the NYC Board of Education's new school development process. The currently planned internship *PRIP* program and *Preservation Week* at the High School for Arts and Business will provide the valuable ability to test, assess and evaluate curriculum ideas on a small scale, and to incorporate feedback into the overall project design. The collaborative efforts of the Center, the New York City Board of Education, the World Monument Fund and Councilman Ken Fisher are directed at creating Preservation High School. In the process of realizing this project they join forces with the broader global heritage education movement to stimulate and sustain preservation awareness, understanding and capability among current and future generations.

## **Preservation Week Program**

**The High School of Arts & Business  
Corona, Queens, New York  
John Lee, Superintendent  
Stephen Drakes, Principal**

**May 6 and May 7, 1998**

**Sponsored by:**

**New York City Board of Education**

**National Parks Service  
National Center for Preservation Technology and Training**

**The World Monuments Fund**

**New Jersey Institute of Technology  
Center for Architecture & Building Science Research**

**High School Arts & Business (Stephen Drakes, Principal)  
NJIT Center for Architecture & Building Science  
Preservation Week Program  
May 6 and May 7, 1998**

Wednesday, May 6, 1998

- 7:30 a.m.      Welcome: Stephen Drakes, Principal, High School for Arts and Business
- Introductions: Kate Ottavino, Director, Preservation Technologies, New Jersey Institute of Technology, Center for Architecture and Building Science Research
- Kenneth Fisher, New York City Councilmember  
                  Franny Eberhart, Places/Historic District Council
- 8:15 a.m.      Lynda Aron, HSAB English Teacher: English Class Role Playing Turn of Century, Literature, Philosophy, Ideals and the Prospect Park Peristyle
- 9:00 a.m.      Jennifer Raab and Anne Delano Steinert, Landmarks Preservation Commission
- 9:30 a.m.      Break**
- 9:45 a.m.      Scott Heyl, Historic House Trust
- 10:00 a.m.     Kiernan McGuire, HSAB Science Teacher: Science Class Materials Experimentation  
                  The Cleaning of Stone and the Preservation of Patina
- 10:40 a.m.     Fran Gale, National Center for Preservation Technology and Training
- 11:00 a.m.     Kevin Lawlor, HSAB Social Studies Teacher: Social Studies Interactive Class  
                  How Architecture Reflects Society
- 11:30 a.m.     Frank Sanchis, National Trust for Historic Preservation
- 12:00 noon     Lunch
- 12:45 p.m.     Bryan Serra, HSAB Art Teacher: Art Class, Preservation Enriched Curriculum
- 1:45 p.m.      End of First Day's Activities

Preservation Week Program, High School of Arts and Business

Thursday, May 7, 1998

- 8:15 a.m. Kiernan McGuire, Teacher: Science Class, Preservation enriched curriculum**
- 9:15 a.m. Lynda Aron, Teacher: English Class, Preservation enriched curriculum
- 10:15 a.m. Kevin Lawlor, Teacher: Social Studies Class, Preservation enriched curriculum
- 11:15 a.m. Lunch
- 12:00 noon Laurie Beckelman, World Monuments Fund
- 12:20 p.m. Margaret Breen, Landmarks Conservancy
- 12:45 p.m. Bryan Serra, Teacher: Art Class, Art in Preservation - Rendering the Building
- 1:30 p.m. Deborah Bershad, The Art Commission of the City of New York
- 1:45 p.m. Ralph Carmosino, Prospect Park Alliance
- 2:00 p.m. Merrill Hesch, New York State Historic Preservation office
- 2:15 p.m. End of Preservation Week Activities

**High School of Arts and Business, Corona, Queens, NY**  
**NJIT Center for Architecture and Building Science**  
**Participants Preservation Week Program May 6 and May 7, 1998**

Lynda Aron, English Teacher, High School of Arts and Business (HSAB)

Ruth P. Baker, Center for Architecture and Building Science Research (CABSR) NJIT

Martha Flock, World Monuments Fund

Lynn Bodnar, Art Commission City of New York

Peg Breen, Landmarks Conservancy

Ralph Carmosino, Prospect Park Alliance

Stephen Drakes Principal, High School of Arts and Business

Franny Eberhart, The PLACES Network/Historic Districts Council

Ken Fisher, Councilmember, Brooklyn 33<sup>rd</sup> District NYC

Fran Gale, National Parks Service NCPTT

Merrill Hesch, New York State Historic Preservation

Scott Heyl, Historic House Trust

Burt Kimmelman, English Professor, NJIT, Dept. Humanities/Social Sciences

Kevin Lawlor, Social Studies Teacher, HSAB

Felicia Mayro, World Monuments Fund

Kieran McGuire, Science Teacher, HSAB

Kate Burns Ottavino, Director, Preservation Technologies, CABSR/NJIT

Jennifer Raab, Landmarks Preservation Commission

Frank Sanchis, National Trust for Historic Preservation

Bryan Serra, Art Teacher, HSAB

Anne Delano Steinert, Landmarks Preservation Commission

## ACKNOWLEDGEMENTS

**The Center for Architecture and Building Science Research, New Jersey Institute of Technology, Ezra Ehrenkrantz, Executive Director and Kate Bums Ottavino, Director Preservation Technologies, wish to thank the following sponsors, supporters and participants for making this program possible.**

### Sponsors

**New York City Board of Education:** Margaret Harrington. Chief Executive for NYC Schools and

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**APPENDIX 4**

**PRESERVATION WEEK STUDENTS**

<b>Name</b>	<b>Grade</b>	<b>Year of Birth/Sex</b>
<b>Summary</b>		
1. Leidy Rivera	10	1982 F
<b>Students</b>		
2. Katherine Bobadilla	9	1983F
3. Luis Cueva	9	1983M
4. Carlos Estremeza	10	1982M
5. Maurice Wimberly	10	1982M
6. In Sung Huang	9	1983M
7. Robert Comacho	10	1981M
8. Filipe Givaldo	10	1982M
9. Pedro Cabral	9	1983M
10. Jonathon Muñoz	9	1983M
11. Albert Reyes	9	1983M
12. Christine Diaz	9	1983F
13. Gita Wisnu	9	1983F
14. Chris Allende	9	1982M
15. Piotr Turila	10	1982M
16. Marcello Goycochea	10	1981M
17. Evelyn Sanchez	9	1982F
18. Josiah Romulo	10	1982M
19. Dave Cuvi	9	1983M
20. Ravinder Kaur	9	1983M
21. Amarjit Kaur	9	1983F
22. Justin Hilliard	9	1983M
23. Angelita M. Alvarez	9	1983F
24. Brigida Tapang	9	1982F
25. Francisbel Perez	9	1983F
26. Anshea Anderson	9	1983F
27. Omar Nuriddin	9	1983M
28. Marlene Moronta	9	1983F
29. Jason Sarzosa	9	1983M
30. Alejandro Rios	9	1982M

<b>Profile: 30</b>
<hr/>
Female 11 Male 19
<b>Grade</b>
<hr/>
10 <sup>th</sup> grade: 8 9 <sup>th</sup> grade: 22
<b>Age</b>
<hr/>
1981-17: 2 1982-16: 10 1983-15: 18
<b>Presentations</b>
<hr/>
Female: 1 Male: 5

**Students Summer Internship Presentations:**

Maurice Wimberly	"Queens' Blvd"
<b>*Robert Comacho</b>	"Flushing"
<b>*Filipe Givaldo</b>	"Home"
Albert Reyes	"Yankee Stadium"
<b>*Justin Hilliard</b>	"Brooklyn Bridge"
Anshea Anderson	"Empire State Building"

**\* Participating Interns 1998**

## APPENDIX 5

### PRESERVATION WEEK TEACHERS' PACKET Table of contents

#### Packet A (Overview and General Information)

1. Steinert, Anne Delano, "Preservation in Action"

Prepared by Anne Steinert of the New York City Landmarks Preservation Commission, this document presents sample topic ideas for infusing preservation ideas into a curriculum.

2. Sullebarger, Beth Ed., *Historic Preservation: Forging a Discipline*. New York: Preservation Alumni Inc., 1989, 14-15

This work is the text of a symposium honoring James Marston Fitch, founder of the historic preservation program at Columbia University Graduate School of Architecture and Planning.

3. Metropolitan Historic Structures Association, *Glimpses of Old New York: House Museums and Historic Sites*, New York: MHSA, 1991

A pictorial reference guidebook to historic structures in the five boroughs of New York City. The guide includes maps of the boroughs, pictures, addresses, telephone numbers and a brief description of each of the Historical Society's buildings.

4. Dolkart, Andrew, *Guide to New York City landmarks/ New York City Landmarks Preservation Commission*. Washington, DC: Preservation Press, National Trust for Historic Preservation, 1992

A complete pocket size guide to New York City's designated historic sites, the guide lists more than 19,000 buildings and includes maps, photographs and drawings.

#### Packet B (Language of Architecture)

5. Blumenson, John J.-G., *Identifying American Architecture*. 2<sup>nd</sup> Ed., Nashville, Tennessee: American Association for State and Local History, 1982 118 pages

A pictorial guide to architecture in the United States, the guide lists styles and terms for architectural styles and terms from the year 1600 to 1945.

#### Packet C (Social Studies)

6. A copy of the original City of New York Department of Parks letter dated August 7, 1903 authorizing sketches for the building of the Croquet Shelter in Prospect Park

Brooklyn. and a copy of the original bill from Messrs. Mc Kim, Mead and White dated July 18, 1904 for their work on the project.

7. Low, David Garrard, *Stanford White's New York*, New York: Doubleday, 1992

A history of the background of Stanford White's architecture and the establishment of the firm McKim, Mead and White. The history takes into account the effects that White's European tour and his love for Paris had on his work and New York City.

#### **Packet D (Science and Materials)**

- 8 Weaver, Graham, Jonathon Ashley-Smith, Ashok Roy, Sarah Staniforth, Harold Barker, *Science for Conservators, Book 1: An Introduction to Materials, Crafts Council Conservation Science Teaching Series*, London: Crafts Council, 1982

This is the first book in the series of six entitled "Science for Conservators" prepared by the British Crafts Council. It is an elementary general textbook in science for conservators. The series is aimed teaching basic skills in science to those with no previous knowledge of conservation science. The series defines the scientific principles which underlie fundamental conservation procedures. This book one is an introduction to scientific terms and concepts.

- 9 Moncrieff, Anne, Graham Weaver, *Science for Conservators, Book 2: Cleaning, Crafts Council Conservation Science Teaching Series*, London: Crafts Council, 1983

This is the second book in the series "Science for Conservators" prepared by the British Crafts Council. This book covers much of the science involved in a wide variety of cleaning procedures, both mechanical and chemical. *Cleaning* is part of the series for practicing conservators that must be studied sequentially for a complete understanding of the scientific conservation system presented in the texts.

- 10 Mc Kee, Harley, *Introduction to Early American Masonry: Stone, Brick, Mortar and Plaster, National Trust/Columbia University Series on the Technology of Early American Building*, Washington: The National Trust for Historic Preservation, 1973

This introductory book gives the history of Early American Masonry. The book, which is fully illustrated, describes the manufacturing and architectural application of masonry products in America. It is an excellent reference guide for the conservator for styles, uses, and problems encountered in historic masonry. The scholarly work is referenced and a bibliography is provided.

- 11 Torraca, Giorgio, *Porous Building Materials- Materials Science for Architectural Conservation*, 2<sup>nd</sup> Ed. Roma: International Centre for the Study of the Preservation and the Restoration of Cultural Property, 1982

This booklet is a collection of relevant descriptive concepts on brick, mortar and porous stone. The Collected concepts are intended as the basis for a short course on technology of building materials as part of a general course on architectural conservation.

**Packet E (Curriculum Frameworks)**

- 12 White, Charles, Kathleen Hunter, *Teaching With Historic Places, A Curriculum Framework*, Washington: National Trust for Historic Preservation

The manual is directed to teachers and curriculum specialist, preservationists and museum and site interpreters. It is designed as a training manual with self contained formatted lesson plans geared to middle school students although the lesson plans can be adapted to either younger or older students. More than 60 Teaching with Historic Places lesson plans have been developed by teachers, interpreters and preservationists.

- 13 Board of Education of the City of New York, *Curriculum Frameworks: Knowledge Skills and Ability Grades Pre K -12*, New York: Board of Education of the City of New York, 1995

This is a comprehensive general guide, for grades pre-K to 12, containing the learning expectations of knowledge, skills, abilities and understandings for students in the New York city Board of Education System. the *Frameworks* reflects a full range of learning needs throughout the school system, in all subjects and grades. This work is intended as a supportive structure for districts and schools to use in developing curricula and related material.

- 14 Cogan, Stanley, Frances Eberhart, John Krawchuk, Julie Maurer, Lynn Shapiro, *Community as Classroom: A Teacher's Manual*, Ed. Frances Eberhardt, New York: Historic Districts Press

This teachers' manual contains seventeen complete lesson plans as taught by participating teachers in New York City in the programs, "A City of Neighborhoods" and "Learning by Design: NY", sponsored by the Cooper-Hewitt National Museum of Design and the AIA. All of the heritage education lesson plans are based on local sites that can be readily accessed by students and teachers. The book also contains an annotated bibliography of source material and a guide for institutional programs in the NYC area and a "How-To" for primary research.

APPENDIX 6

PRESERVATION WEEK LESSON PLANS

I. SCIENCE LESSON PLAN OUTLINES

TOPIC:	AIM:	ACTIVITIES:
1. Materials.	Comparative understanding of the benefits and deficiencies of various materials.	A. Examine various building materials B. Investigate methods of production of materials
2. Chemistry	Analysis of natural disintegration. analysis of social causes of material disintegration of materials.	A. Ascertain effects of weathering and maintenance needs of various materials. B. Discuss society's impact on existing structures, i.e. acid rain, etc.
3. Physics of Construction.	An understanding of load.	A. View diagrams of various column types B. Introduce vector analysis C. Discuss the keystone D. View pictures of Roman and Gothic Arches
4. Physics of Construction.	An understanding of load	A. Introduce bridge styles, including beam, pontoon, cantilever, arch beam, trigonal beam, arch suspension and tower cable suspension B. Show examples of each (local if possible).
5. Restoration of the Prospect Park Croquet Shelter.	An understanding of the actual processes which caused deterioration, and preventive techniques used in restoration.	A. Examine pictures. B. Discuss particular areas of decay. C. Analyze planned restorative materials and techniques.

## MATERIALS USED FOR CONSTRUCTION

**Natural Shelters:** Form: Shells: Oysters, Clams, Turtles

Materials Used: Calcium Carbonate (the same material as Limestone and Marble)

Silicon Dioxide (the same material as in Quartz)

Some "shelters" are used by species other than that which formed the shelter, as with Hermit Crabs, who occupy the abandoned shells of other animals.

Other "shelters" are natural, that is they were formed by weathering or other natural processes. Example: Caves used by bears, some wild canines, and early man.

Positive Attributes: Little or no labor needed to make habitable. -May allow for a large group.

Negative Attributes: Dark. -Cold. -Not Always Available.

### Artificial Shelters:

Mud Wall Dwellings: Ireland, Spain, American Great Plains and Southwest, parts of Africa.

Positive Attributes: Readily available materials -Ease of construction.

Negative Attributes: Subject to moisture, maintenance required. -No Flooring, therefore damp inside.

Wooden Structures: Throughout the World.

Positive Attributes: Use renewable resources. --Moderate ease of construction. -Allows decorative work. -Flooring possible, easing dampness.

Negative Attributes: Will decay over time due to moisture. -Subject to moderate expansion and contraction with seasonal moisture and temperature changes. -Can burn. -- Availability of wood is a problem in some areas.

Stone Structure: Throughout the world.

Positive Attributes: Strength allowed larger structures to be built, such as castles and cathedrals. -Long lasting against both natural and artificial decay (wars, etc.) -Allows near permanent artistic expression.

Negative Attributes: Some difficulty of construction (crafts needed to be developed). --Mortars often required, needing maintenance. Availability a problem in some locations.

Metal Structure: Throughout the World.

Positive Attributes: -Very large structures and large spans possible, such as bridges, skyscrapers, and large railroad yards.

Negative Attributes: -Maintenance required to prevent rust, Metal not as long-lasting as stone.

Terra Cotta:

This is a material which allows decorative beauty at a fraction of the expense of carved stonework. Terra cotta is a formed, baked clay, covered by a baked glaze. The clay will expand and contract slightly with moisture, cracking the glaze over time, allowing an effect which simulates, to a certain degree, the veins in marble.

Modern industry (coal and petroleum burning in factories) creates a problem with Sulfur Dioxide (SO<sub>2</sub>) in the air, which is absorbed by droplets in clouds, and slightly acidizes the rain (Sulfuric Acid, H<sub>2</sub>SO<sub>4</sub>). This problem has been reduced, but years of "acid-rain" have caused a dissolving problem in building materials which contain Calcium Carbonate (CaCO<sub>3</sub>).

Prepared by : Kiernan J. McGuire  
(516) 887-7368

## II. ART LESSON PLANS

ARCHITECTURAL PRESERVATION

CURRICULUM CONSTRUCTION & PLANNING  
FOR SECONDARY EDUCATION

June 3, 1998

by Bryan F. Serra, Arts Coordinator

High School for Arts and Business, Corona, NY

Sponsors:

New Jersey Institute of Technology, Newark, NJ

Center for Architecture and Building Science Research

N.Y.C. Board of Education  
Division of Queens High Schools

DATE: 4/23/98

TO: NJIT/CABSR HSA&B  
K. Ottavino L. Aaron  
N. Eliot K. Lawlor  
R. Baker K. McGuire

FROM: Bryan Serra - H.S. for Arts & Business, Corona, NY 11368

SUBJECT: Art Department Overview of Architectural Conservation  
DRAFT COPY

RATIONALE: The five lesson synopsis suggested in this project will explore *Architectural History, Architectural Criticism, Aesthetics, Studio Planning, and Contrasts of Contemporary Construction*. Each unit of examination will progress sequentially and parallel science, social studies, and language arts where feasible. The artisan and builder as a partner will be trained to continue cultural preservation through our majestic architectural heritage. With our integral lesson sequence - cultural adaptability, interdisciplinary learning, core planning, and technological understanding - conservation will be realized by our student population.

LESSON PROPOSALS:

Each plan or "recipe" will include the following elements, inclusive of workshop hand-outs for reference, prior to a future formalized booklet/binder:

- |                   |                           |
|-------------------|---------------------------|
| 1. SUBJECTS (1-5) | 6. MATERIALS              |
| 2. ACTIVITY       | 7. PROCEDURE              |
| 3. OBJECTIVE      | 8. SCHEDULE               |
| 4. MOTIVATION     | 9. EVALUATION/INTEGRATION |
| 5. VOCABULARY     | 10. WORKSHEET REFERENCES  |

SUBJECTIVITY:

1. ARCHITECTURAL HISTORY

- A. Projections of Greek/Roman architectural form in context with natural form.
- B. Investigate symbolic graphics and decorative elements.
- C. Review European 19th Century influence on Stanford White.
- D. Specific concerns and purpose of structures and materials indigenous to terrain.
- E. Destruction of war and conquest. (slides/emotion)

2. ARCHITECTURAL CRITICISM

- A. Analyze similarities and differences among- Egyptian, Greek and Roman FORM.  
(slides)
- B. Extend vocabulary discussed during unit on history.
- C. Develop skills of criticizing work as it progressed by comparisons to the past.
- D. Practice written and oral skill in criticism based upon the six formal ELEMENTS OF DESIGN - line, form, space, color, texture, pattern.

3. AESTHETICS

- A. Address questions of value, meaning, and "form following function".
- B. Cultivate appreciation of differing views on decorative and structural components.
- C. Role of Relief Sculpture and human representation or symbolism. (slides/worksheets)

#### 4. STUDIO PLANNING

- A. Present a problem in reconstruction with "new" 20th century materials, and draft a solution using appropriate tools (T-square, triangle, scale, and board)
- B. Compare basic drawings of Egyptian, Greek, and Roman housing for the "masses".
- C. Contrast *basic* form and space, and build models with foam-core, white glue, and straight pins.
- D. Construct cornice trim or tile pattern with foam by embossing- or layering.

#### 5. CONTRASTS OF CONTEMPORARY CONSTRUCTION

- A. Project or view late 20th Century masters to compare span, truss, and space solutions. (Sarrinen, Wright, Fuller, Rudolph)
- B. How might *plastics* have created new form and space if available thousands of years ago?
- C. Can we successfully combine past historic beauty with contemporary concepts **in** architecture?
- D. How valuable is restoration/conservation and why?

## LESSON PLAN ONE

- SUBJECT: Conservation & Restoration of Architecture - Secondary Education
- ACTIVITY: **Architectural History Revisited**
- OBJECTIVE: The students will experience an historic review of our majestic architectural heritage. Contrasts and similarities of contemporary structures will enhance cultural identity.
- MOTIVATION: Seeing actual neighborhood adaptations, through past historical recognition enlightens the learning process. An association of *natural form*, contrasted by the similarities of man-made form sustains enthusiasm.
- VOCABULARY: Classical, atrium (open center), decorative, column, capital, frieze, **cornice**, **facia**, doric, ionic, Corinthian order
- MATERIALS: Workshop reference sheets as handouts, 35mm transparencies with screened projection equipment in place.
- PROCEDURE:
- 1 - Project Workshop Sheet A and discuss.
  - 2 - Project Workshop Sheet B and discuss
  - 3 - Project slides and identify sites in student neighborhood previously photographed. Subjects include apartment buildings, public schools -primary and secondary, churches and burial sites. Compare similarities or differences of materials and *natural form*.

LESSON PLAN TWO

SUBJECT: Conservation & Restoration of Architecture - Secondary Education

ACTIVITY: Architectural Criticism

OBJECTIVE: To analyze similarities and differences among Egyptian, Greek, and Roman architectural form.

MOTIVATION: The discovery of the reasoning discerning how our culture evolved.

VOCABULARY: Construction materials - define limestone, mortar, granite block, terra-cotta, slave labor issues

MATERIALS: Workshop handouts on Language Arts and skills in constructing supportive arguments. Workshop on the six formal elements of design which will become the platform "language" of architectural criticism

PROCEDURE:

1. - How might a glass block pyramid provide us with solar energy today?
2. - Contrast Roman decorative construction with austere Egyptian massive form.
3. - Has the need for individual, private homes or "public housing for the masses" minimized the requirements of grand cultural, central spaces of ancient city planners?
4. - Compare man-made and natural materials and their ability to function as decorative architectural form today.

SCHEDULE: This lesson could evolve into a term project from basic one or two period dialogue.

EVALUATION & INTEGRATION:

Class structure may divide into four- co-op base groups, (see procedure) then report on their findings and inventiveness to the class during a two day period. Each cooperative base group could be evaluated by the following parameters:

A - Have the students critiqued their own work as they progressed?

B - Has their participation and presentation used appropriate architectural/artistic vocabulary?

## LESSON PLAN: THREE

- SUBJECT:** Conservation & Restoration of Architecture - Secondary Education
- ACTIVITY:** Aesthetics
- OBJECTIVE:** To cultivate and appreciate differing interpretations of Classic Architecture and to recognize, analyze and evaluate beauty,.
- MOTIVATION:** The basics of applying rudimentary judgement in matters of artistic values, based either consciously (art elements) or unconsciously. When a student begins the life long process of defining Beauty itself and can augment the ramifications of judgmental exchange, early adolescence has emerged from the dormant bud.
- VOCABULARY:** Appreciation of beauty, standards of a particular time, balance, harmony "fashionable art". . intrinsic beauty vs extrinsic beauty!
- MATERIALS:** Workshop handouts integrating Language Arts skill and Aesthetic judgement. Trade journal articles written by critics for writing style dialogue.
- PROCEDURE:**
1. - Prepare a reaction paper based on Materials handout discussion. The theme is FORM FOLLOWS FUNCTION.
  2. - Choose a relief or three-dimensional sculpture based on humankind and argue the positive and negative symbolism at its' site.
  3. - The "house of worship" is the epitome of a civilization's aesthetic values. True or false: elaborate.
- SCHEDULE:** This lesson could evolve into a project based upon a single period of instruction.
- EVALUATION & INTEGRATION:** Were we able to express informed opinions regarding the significance, value, and meaning of architectural aesthetics? Did the student broaden his/her understanding of discussing beauty?

## LESSON PLAN FOUR

- SUBJECT:** Conservation & Restoration of Architecture - Secondary Education
- ACTIVITY:** **Studio Planning**
- OBJECTIVE:** Utilizing previous knowledge gained through LESSON ONE, TWO, and THREE review, students will combine ancient and contemporary architectural concepts by sketching.
- MOTIVATION:** Examine the role of architects by creating primary level interior space or exterior structures. Projects are based upon Greco-Roman style and twenty-first century imagination.
- VOCABULARY:** Studio lesson vocabulary based upon the formal elements of design - LINE, FORM, SPACE, COLOR, TEXTURE, & PATTERN. *Drawing vocabulary* would include drawing board, T-square, triangle, scale rule, mechanical pencil, lead sharpener, compass, divider, vellum, canary paper, APPLE/MAC, C.A.D., and software. *Drawing vocabulary* would include marker, graphite, stump, straight-edge, gum eraser, watercolor, pastels, and illustration board. *Model building vocabulary.* foam core, exacto knife, steel edge, and *adhesives.* *Printmaking vocabulary* plate, press, ink, deboss, and roller.
- MATERIALS:** Supplies listed above in VOCABULARY, LESSON ONE handouts, and 35mm transparencies of drawing styles.
- PROCEDURE A:**
- 1 - Compare basic drawings of Egyptian, Greek, and Roman housing and temples.
  - 2 - Present a problem of reconstruction substituting 20th or 21st Century materials. How could capitals or columns be constructed in high density urethane foam? How might surfaces be designed as resistant to natural and man-made decomposition?
  - 3 - Combine the "old" and the "new" in the manner that architects problem solve in their profession.
  - 4 - Rough on canary, should be followed by plan, section, and elevation drawings. Students may choose to freehand sketch and follow-up with a rendering of the structure created.
- PROCEDURE B:** Contrast *basic* form and space, and construct foam core models of ideas presented in Procedure A.
- PROCEDURE C:** Construct cornice trim or pattern tiles using basic printmaking techniques.

**SCHEDULE:** One to three weeks, 5 periods each week for Procedure A; one week for Procedures B and C.

**EVALUATION &  
INTEGRATION:**

Has the studio-based creative experience allowed for group exchange, cooperative education technique, and presentation of final projects? Have projects been displayed formally to other high school classes?

## LESSON PLAN FIVE

SUBJECT: Conservation & Restoration of Architecture - Secondary Education

ACTIVITY: **Contrasts of Contemporary Construction**

OBJECTIVE: This final series lesson should examine twentieth century material and structures, and align their significance with our historic past.

MOTIVATION: An initial incentive class trip to New York City modern architectural masterpieces will arouse and sustain energy. I.E. - CITICORP BUILDING, GUGGENHEIM MUSEUM, & various hotels.

VOCABULARY: Span, truss, triangulation, grid, steel/reinforced concrete, glass, thermoplastic resin, thermoformed plastic, carbon fibre, convexity, concavity.

MATERIALS: Slides and Worksheets reviewing masters of 20th century architecture - Sarrinen, Sullivan, Wright, Pei, Rudolph, Breyer & Johnson.

PROCEDURE: I - Report/visuals discussing contemporary architectural materials or concepts combined with past historic beauty and decor.

2 - How might plastics have created new form and space if they were prevalent two or four thousand years ago? (use visuals also)

3 - Why is restoration and conservation of our landmarks an important socioeconomic issue?

SCHEDULE: Following the class trip, one period of reference discussion and show, three periods for suggestions on procedure, and five periods devoted to actual sketching and writing.

EVALUATION & INTEGRATION: Were students able to conceive an idea, select a process, and execute their creative energy in two or three dimensions? Can the student of conservation relate symbolic information or recognize new areas of endeavor, such as industrial design, through their search and inquiry process?



LINE | FORM | SPACE | COLOR | TEXTURE | PATTERN

INTRODUCTION TO ART - CLASSWORK/HOMEWORK

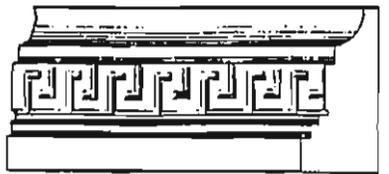
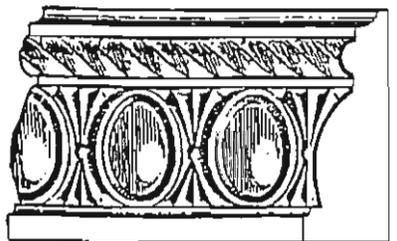
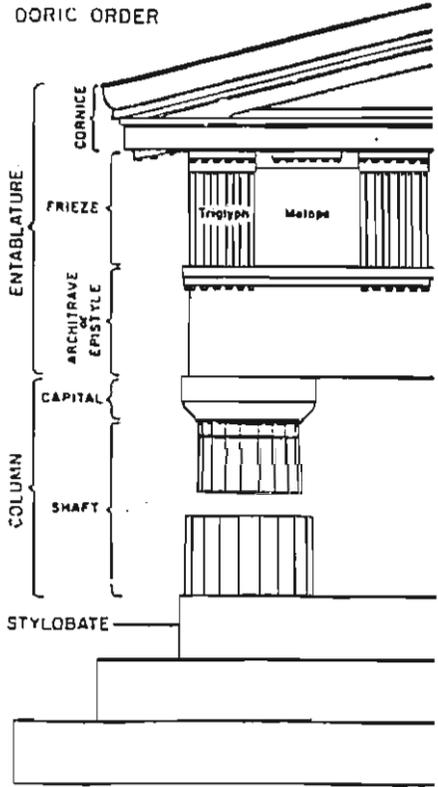
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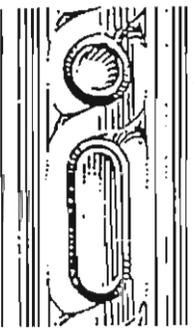
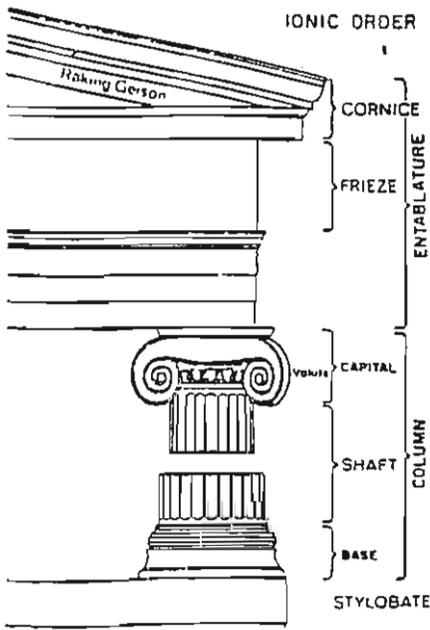
CLASS :

PERIOD :

DORIC ORDER



IONIC ORDER



LINE | FORM | SPACE | COLOR | TEXTURE | PATTERN

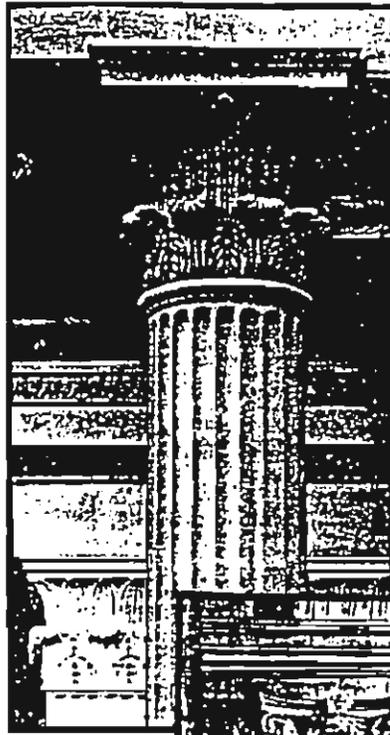
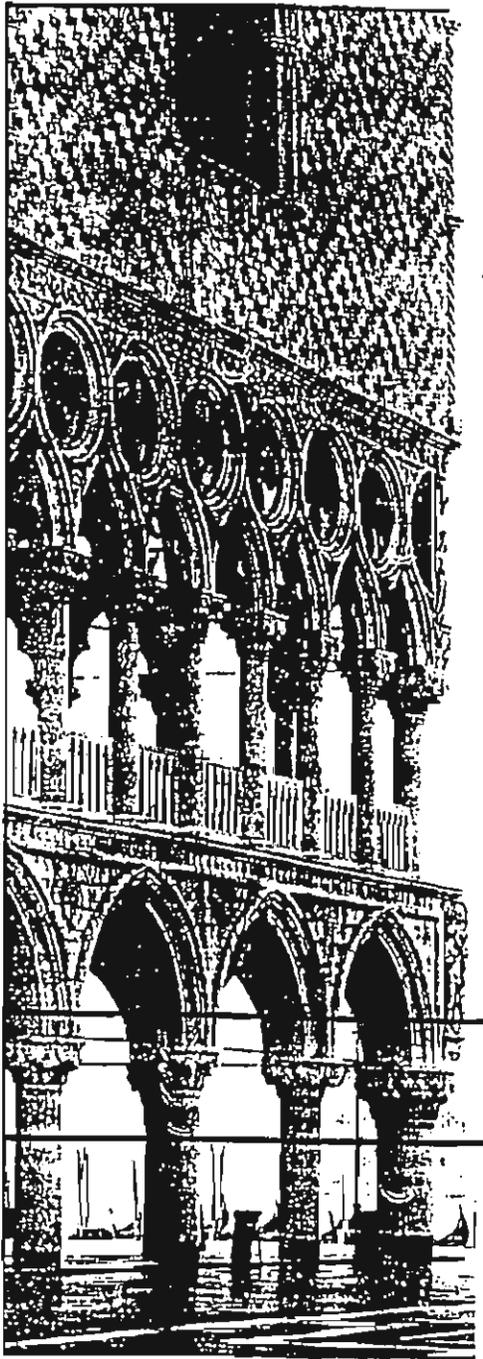
INTRODUCTION TO ART - CLASSWORK/HOMEWORK

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DATE :

CLASS :

PERIOD :



LINE | FORM | SPACE | COLOR | TEXTURE | PATTERN

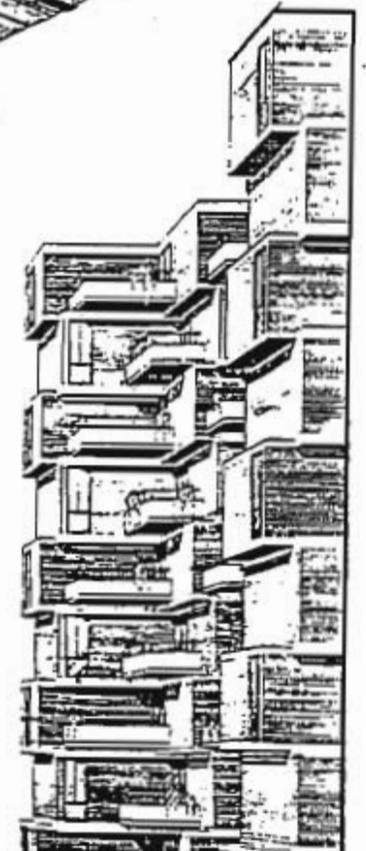
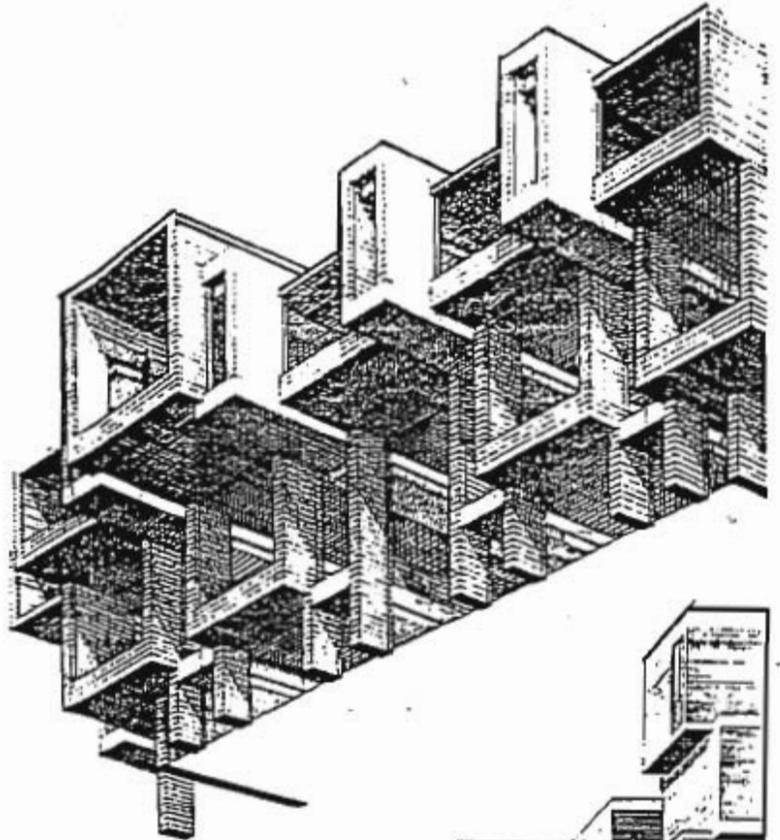
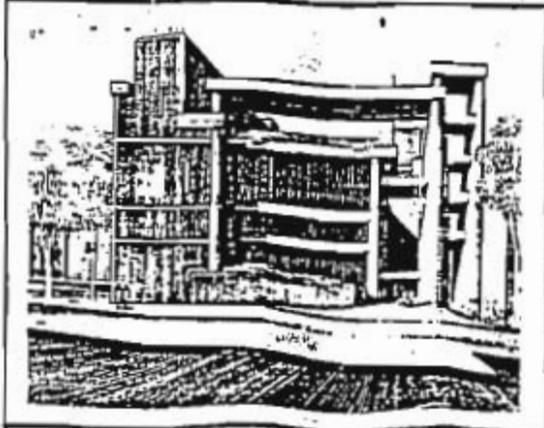
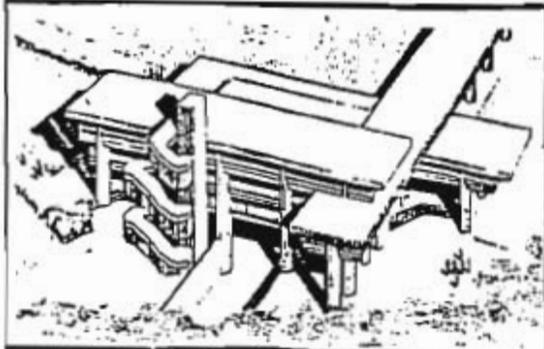
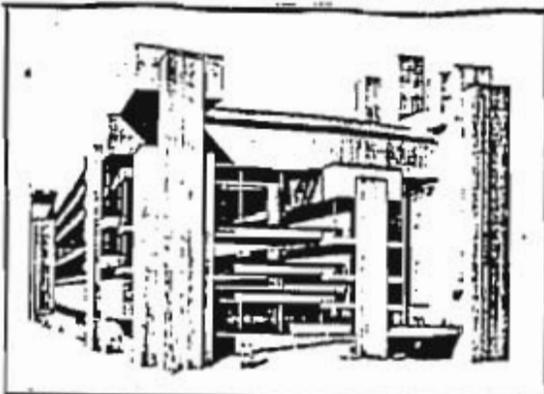
INTRODUCTION TO ART - CLASSWORK/HOMEWORK

NAME :

DATE :

CLASS :

PERIOD :



### III SOCIAL STUDIES LESSON PLAN OUTLINES

<b>TOPIC:</b>	<b>AIM:</b>	<b>ACTIVITIES</b>
1.Buildings	Why do People build?	<ol style="list-style-type: none"><li>1.Compare pictures of a shantytown and beautiful buildings.</li><li>2. Analyze why people build.</li><li>3. Summary. "Architecture reflects society."</li></ol>
2.Restoration of buildings.	Why do people restore things?	<ol style="list-style-type: none"><li>1. Look at picture of Lawlor estate house at Pearl River</li><li>2. Discuss its condition since it was abandoned 50 years ago.</li><li>3. What does restore mean.</li><li>4. Why restore the family estate</li></ol>
3.NYC society in 1900-.	How do you describe NYC in 1900?	<ol style="list-style-type: none"><li>1. Analyze picture of NYC</li><li>2. Analyze reading about NYC.</li><li>3. Describe NYC in 1900 in a summary statement.</li></ol>
4. Prospect Park	Why did they build Prospect Park and the Croquet Shelter.	<ol style="list-style-type: none"><li>1. Discuss what a park is.</li><li>2. Locate PP on a map.</li><li>3. Why are parks important?</li><li>4. What is croquet?</li><li>5. Show the Croquet shelter</li></ol>
5.Restoration of Croquet Shelter	Why restore the Croquet shelter?	<ol style="list-style-type: none"><li>1. Summarize first 4 lessons</li><li>2. Group work: why restore?</li><li>3. How restore?</li></ol>

PRESERVATION WEEK  
SOCIAL STUDIES CLASS #1 (KEVIN LAWLOR)

TOPIC: "Buildings"

AIM: "Why do people build?"

- Reflect upon the purpose of building
- Write a response to the "aim" question
- Appreciate that different situations spur different construction
- Conclude that "construction reflects society" and that "buildings have history"

ACTIVITIES:

1. Write a **quick** answer to "aim". Share results.
2. **Look at** "shantytown" transparency.  
**Look at** "modern building" transparency.
3. Answer in large group: "What do you see?"
4. Small group: two questions.
  1. - What can you say about the builders?
  2. Why did they build?
5. Share conclusions in large group.
6. **Summary of lesson:** elicit short phrase summaries from students.

PRESERVATION WEEK  
SOCIAL STUDIES CLASS #2 (KEVIN LAWLOR)

TOPIC: Restoration and Preservation of Buildings

AIM: Why do people restore things?

- appreciate "sentimental value"
- know that buildings and things have a history
- understand why people preserve -and restore

ACTIVITIES:

1. Narrate story of "green pants"
2. Narrate story of baseball trophies.
3. Look at pictures of "Lawlor Estate"
  - What do you see?
  - Where is the place?
  - When was the picture taken?
4. Share the story:
  - Pearl River, near the Hudson
  - right side of building built in 1773; left side of building and second floor built in 1820-
  - My father (born in 1911) spent his summers there. -In the depression times the family sold off most of the property. The house remained, but the taxes were not paid.
  - The house deteriorated completely.
  - Today the house is there and the taxes that are owed are outrageous.
  - To pay the taxes and to renovate the house would cost over a million dollars.
5. If I win the lottery, I would like to renovate. "WHY?"
6. What is the difference between "preserve" and "restore"?
5. Summary: Why preserve and restore?

## IV LANGUAGE ARTS

### Overview for Restoration Project: Language Arts

#### I. Setting the Scene

##### A. Importance of Time and Place

1. Set the historical, social and ethical time through visuals and literary readings.
2. Review the history of Prospect Park and its importance within the social realm.
3. Examine the importance and manifestation of "retreats" in society.

##### B. Importance of Serenity, Beauty and Recreation

1. Explore Restoration, Retreat, Recreation Decay and Technology as Concepts
2. Relate concepts to students' lives through examples of modern forms of recreation and diversion.
3. Create historical literary context through known works and student writing.
4. Vocabulary

#### II. Aesthetics

##### A. Historical and Philosophical Reasoning - Lit. Criticism

##### B. Creativity and Expression

1. Have students express and create oral, or written, written representations of life at the turn of the century from a variety of imagined characters.
2. Have students express and create works from personal experience.
3. Give students an experience of known poets and writers.
4. Vocabulary

Reference: Edith Wharton, *The Mount, the Age of Innocence*  
John Ruskin (1819-1900),  
Henry James,  
O. Henry  
William Dean Howells  
Stephen Crane, *Maggie Girl of the Streets*  
Walt Whitman

#### Meaning of Prospect:

Greek Ideals and Architecture  
Monuments- Dignity, Unity, Scale, Lines  
Lights and shadows  
Decorative Sculpture: The force that creates it  
Technology vs Representation vs Authenticity

#### ROLE PLAYING

Imagine what it would be like...

1. "You are an immigrant from Eastern Europe or Italy at the turn of the century. You live in a tenement and work in a sweat shop all week. It is the middle of the summer on a Sunday afternoon

before the creation of Central Park or Prospect Park; what would you be thinking, feeling or saying to a friend or family member?

2. You are Stanford White, or a close friend of his. You have just returned from Europe and are having a conversation with a committee member about the structure you want to create in Prospect Park. What are your reasons for its creation?
3. You are a group of socialites at a party a month after the Croquet House has been built. What is your conversation?
4. You are a group of teens from a Hispanic country, a hood, or a private high school. The year is 1998 you decide to meet at the park, at that decaying Grecian looking place, with the fence around it: What's your conversation like?

How Were "Things" Different at the Turn of the Century?

Class Structure  
Clothing  
Manners  
Architecture,  
Quality of Life

#### READING ASSIGNMENT

If you are chosen for the summer internship this will be required reading. Otherwise, you may want to read this for your next Book Review, or a novel idea, pleasure!

TIME AND AGAIN by Jack Finney; Scribner Paperback edition

Sequel:

FROM TIME TO TIME

I walk down the garden-paths,  
 And all the daffodils  
 Are blowing, and the bright blue squills.  
 I walk down the patterned garden-paths  
 In my stiff, brocaded gown.  
 With my powdered hair and jeweled fan,  
 I too am a rare  
 Pattern. As I wander down  
 The garden-paths.

Motion  
 &  
 Emotion

My dress is richly figured,  
 And the train  
 Makes a pink and silver stain  
 On the gravel, and the thrift  
 Of the borders.  
 Just a plate of current fashion,  
 Tripping by in high-heeled, ribboned shoes.  
 Not a softness anywhere about me,  
 Only whalebone and brocade.  
 And I sink on a seat in the shade  
 Of a lime tree. For my passion  
 Wars against the stiff brocade.  
 The daffodils and squills  
 Flutter in the breeze  
 As they please,  
 And I weep;  
 For the lime-tree is in blossom  
 And one small flower has dropped upon my bosom.

And the plashing of waterdrops  
 In the marble fountain  
 Comes down the garden-paths.  
 The dripping never stops.  
 Underneath my stiffened gown  
 Is the softness of a woman bathing in a marble basin,  
 A basin in the midst of hedges grown  
 So thick, she cannot see her lover hiding,  
 But she guesses he is near,  
 And the sliding of the water  
 Seems the stroking of a dear  
 Hand upon her.  
 What is Summer in a fine brocaded gown! — *wished she had loved*  
 I should like to see it lying in a heap upon the ground.  
 All the pink and silver crumpled up on the ground.

I would be the pink and silver as I ran along the paths,  
 And he would stumble after,  
 Bewildered by my laughter.  
 I should see the sun flashing from his sword-hilt and the buckles on his shoes  
 I would choose  
 To lead him in a maze along the patterned paths.  
 A bright and laughing maze for my heavy-booted lover.  
 Till he caught me in the shade,  
 And the buttons of his waistcoat bruised my body as he clasped me,  
 Aching, melting, unafraid.  
 With the shadows of the leaves and the sundrops,  
 And the plopping of the waterdrops,  
 All about us in the open afternoon—  
 I am very like to swoon  
 With the weight of this brocade,  
 For the sun sifts through the shade.

Underneath the fallen blossom  
 In my bosom  
 Is a letter I have hid,  
 It was brought to me this morning by a rider from the Duke.

"Madam, we regret to inform you that Lord Hartwell  
Died in action Thursday se'nnight."

As I read it in the white, morning sunlight,  
The letters squirmed like snakes.

"Any answer, Madam," said my footman.

"No," I told him.

"See that the messenger takes some refreshment.

No, no answer "

And walked into the garden,

Up and down the patterned paths,

In my stiff, correct brocade.

The blue and yellow flowers stood up proudly in the sun,

Each one.

I stood upright too,

Held rigid to the pattern

By the stiffness of my gown;

Up and down I walked,

Up and down.

In a month he would have been my husband.

In a month, here, underneath this lime,

We would have broke the pattern;

He for me, and I for him,

He as Colonel, I as Lady,

On this shady seat.

He had a whirl

That sunlight carried blessing.

And I answered, "It shall be as you have said."

Now he is dead.

In Summer and in Winter I shall walk

Up and down

The patterned garden-paths

In my stiff, brocaded gown.

The squills and daffodils

Will give place to pillared roses, and to asters, and to snow.

I shall go

Up and down

In my gown.

Gorgeously arrayed,

Boned and staved.

And the softness of my body will be guarded from embrace

By each button, hook, and lace.

For the man who should loose me is dead,

Fighting with the Duke in Flanders,

In a pattern called a war.

What are patterns for? (now that he's dead)

Chapter XIII  
[How Can an Art Decay?]

In fine, I would beseech the literary critics of our country to disabuse themselves of the mischievous notion that they are essential to the progress of literature in the way critics have vainly imagined. Canon Farrar<sup>4</sup> confesses that with the best will in the world to profit by the many criticisms of his books, he has never profited in the least by any of them; and this is almost the universal experience of authors. It is not always the fault of the critics. They sometimes deal honestly and fairly by a book, and not so often they deal adequately. But in making a book, if it is at all a good book, the author has learned all that is knowable about it, and every strong point and every weak point in it, far more accurately than any one else can possibly learn them. He has learned to do better than well for the future; but if his book is bad, he cannot be taught anything about it from the outside. It will perish; and if he has not the root of literature in him, he will perish as an author with it.

But what is it that gives tendency in art, then? What is it makes people like this at one time, and that at another? Above all, what makes a better fashion change for a worse; how can the ugly come to be preferred to the beautiful; in other words, how can an art decay?

This question came up in my mind lately with regard to English fiction and its form, or rather its formlessness. How, for instance, could people who had once known the simple verity, the refined perfection of Miss Austen, enjoy anything less refined and less perfect?

With her example before them, why should not English novelists have gone on writing simply, honestly, artistically, ever after? One would think it must have been impossible for them to do otherwise, if one did not remember, say, the lamentable behavior of the actors who support Mr. Jefferson,<sup>5</sup> and their theatricality in the very presence of his beautiful naturalness. It is very difficult, that simplicity, and nothing is so hard as to be honest, as the reader, if he has ever happened to try it, must know. "The big bow-wow I can do myself, like any one going," said Scott, but he owned that the exquisite touch of Miss Austen was denied him; and it seems certainly to have been denied in greater or less measure to all her successors. But though reading and writing come by nature, as Dogberry<sup>6</sup> justly said, taste in them may be cultivated, or once cultivated, it may be preserved; and why was it not so among those poor islanders? \* \* \*

Señor Valdés<sup>7</sup> is a realist, but a realist according to his own conception of realism; and he has some words of just censure for the French naturalists, whom he finds unnecessarily, and suspects of being sometimes even mercenarily, nasty. He sees the wide difference that passes between this naturalism and the realism of the English and Spanish; and he goes somewhat further than I should go in condemning it. "The French naturalism represents only a moment, and an insignificant part of life. . . . It is characterized by sadness and narrowness. The prototype of this literature is the *Madame Bovary* of Flaubert. I am an admirer of this novelist, and especially of this novel; but often in thinking of it I have said, How dreary would literature be if it were no more than this! There is something antipathetic and

4. Frederick W. Farrar (1831-1903), British clergyman and writer.

5. Joseph Jefferson (1829-1905), American actor.

6. Dogberry, a smug constable and misuser of words in Shakespeare's *Much Ado about Nothing*.

7. Armando Palacio Valdés (1853-1938), Spanish critic and realistic novelist. His introduction to the English translation of his novel *Sister St. Sulpice* (1889) is the source of Howells's quotations. The novel was very popular in the United States.

it is not like a real grasshopper. But I will own that I think the time is yet far off, that the people who have been brought up on the ideal grasshopper, the heroic grasshopper, the impassioned grasshopper, the self-devoted, adventurous, good old romantic cardboard grasshopper, must die out before the simple, honest, and natural grasshopper can have a fair field. I am in no haste to compass the end of these good people, whom I find in the meantime very amusing. It is delightful to meet one of them, either in print or out of it—some sweet elderly lady or excellent gentleman whose youth was pastured on the literature of thirty or forty years ago—and to witness the confidence with which they preach their favorite authors as all the law and the prophets. They have commonly read little or nothing since or, if they have, they have judged it by a standard taken from these authors, and never dreamed of judging it by nature; they are destitute of the documents in the case of the later writers; they suppose that Balzac was the beginning of realism, and that Zola is its wicked end; they are quite ignorant, but they are ready to talk you down, if you differ from them, with an assumption of knowledge sufficient for any occasion. The horror, the resentment with which they receive any question of their literary saints is genuine; you descend a once very far in the moral and social scale, and anything short of offensive personal attack is too good for you; it is expressed to you that you are one to be avoided, and put down even a little lower than you have naturally fallen.

\* \* \*

Those good people, those curious and interesting if somewhat musty back-numbers, must always have a hero, an idol of some sort, and it is droll to find Balzac, who suffered from their sort such bitter scorn and hate for his realism while he was alive, now become a fetich in his turn, to be shaken in the faces of those who will not blindly worship him. But it is no new thing in the history of literature: whatever is established is sacred with those who do not think. At the beginning of the century, when romance was making the same fight against effete classicism which realism is making today against effete romanticism, the Italian poet Monti<sup>3</sup> declared that "the romantic was the cold grave of the Beautiful," just as the realistic is now supposed to be. The romantic of that day and the real of this are in certain degree the same. Romanticism then sought, as realism seeks now, to widen the bounds of sympathy, to level every barrier against aesthetic freedom, to escape from the paralysis of tradition. It exhausted itself in this impulse; and it remained for realism to assert that fidelity to experience and probability of motive are essential conditions of a great imaginative literature. It is not a new theory, but it has never before universally characterized literary endeavor. When realism becomes false to itself, when it heaps up facts merely, and maps life instead of picturing it, realism will perish too. Every true realist instinctively knows this, and it is perhaps the reason why he is careful of every fact, and feels himself bound to express or to indicate its meaning at the risk of over-moralizing. In life he finds nothing insignificant; all tells for destiny and character; nothing that God has made is contemptible. He cannot look upon human life and declare this thing or that thing unworthy of notice, any more than the scientist can declare a fact of the material world beneath the dignity of his inquiry. He feels in every nerve the equality of things and the unity of men; his soul is exalted, not by vain shows and shadows and ideals, but by realities, in which alone the truth lives. \* \* \*

3. Vincenzo Monti (1754-1828), neoclassical poet.

came together before the Virgin of Amiens they ought both to have felt in her the force that made them one; but it was not so. To Adams she became more than ever a channel of force; to Saint-Gaudens she remained as before a channel of taste.

For a symbol of power, Saint-Gaudens instinctively preferred the horse, as was plain in his horse and Victory of the Sherman monument. Doubtless Sherman also felt it so. The attitude was so American that, for at least forty years, Adams had never realized that any other could be in sound taste. How many years had he taken to admit a notion of what Michaelangelo and Rubens<sup>5</sup> were driving at? He could not say; but he knew that ~~only since 1895 had he begun to feel the Virgin or Venus as force, and not everywhere even so.~~ At Chartres—perhaps at Lourdes—possibly at Knidos if one could still find there the divinely naked Aphrodite of Praxiteles<sup>6</sup>—but otherwise one must look for force to the goddesses of Indian mythology. The idea died out long ago in the German and English stock. Saint-Gaudens at Amiens was hardly less sensitive to the force of the female energy than Matthew Arnold at the Grand Chartreuse.<sup>7</sup> Neither of them felt goddesses as power—only as reflected emotion, human expression, beauty, purity, taste, scarcely even as sympathy. They felt a railway train as power; yet they, and all other artists, constantly complained that the power embodied in a railway train could never be embodied in art. All the steam in the world could not, like the Virgin, build Chartres.

Yet in mechanics, whatever the mechanics might think, both energies acted as interchangeable forces on man, and by action on man all known force may be measured. Indeed, few men of science measured force in any other way. After once admitting that a straight line was the shortest distance between two points, no serious mathematician cared to deny anything that suited his convenience, and rejected no symbol, unproved or unproveable, that helped him to accomplish work. The symbol was force, as a compass-needle or a triangle was force, as the mechanist might prove by losing it, and nothing could be gained by ignoring their value. Symbol or energy, the Virgin had acted as the greatest force the Western world ever felt, and had drawn man's activities to herself more strongly than any other power, natural or super-natural, had ever done; the historian's business was to follow the track of the energy; to find where it came from and where it went to; its complex source and shifting channels; its values, equivalents, conversions. It could scarcely be more complex than radium; it could hardly be deflected, diverted, polarized, absorbed more perplexingly than other radiant matter. Adams knew nothing about any of them, but as a mathematical problem of influence on human progress, though all were occult, all reacted on his mind, and he rather inclined to think the Virgin easiest to handle.

The pursuit turned out to be long and tortuous, leading at last into the vast mazes of scholastic science. From Zeno to Descartes, hand in hand with Thomas Aquinas, Montaigne, and Pascal,<sup>8</sup> one stumbled as stupidly as though one were still a German student of 1860. Only with the instinct of despair could one force one's

<sup>5</sup> Peter Paul Rubens (1577-1640), great painter of the Flemish school.

<sup>6</sup> Greek sculptor (fourth century B.C.), whose statue of Aphrodite was placed in the temple at Knidos in Asia Minor.

<sup>7</sup> English Victorian poet (1822-1887), who wrote

from the Grande Chartreuse," 1855).

<sup>8</sup> Zeno of Elea (fifth century B.C.), Greek philosopher whose paradoxes stimulated dialectic; René Descartes (1596-1650), French philosopher and mathematician, father of modern philosophy; St. Thomas Aquinas (1225?-1274), Italian philosopher

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*being original*

could not imitate, or give any form but his own to the creations of his hand. No one felt more strongly than he the strength of other men, but the idea that they could affect him never stirred an image in his mind.

This summer his health was poor and his spirits were low. For such a temper Adams was not the best companion, since his own gaiety was not *folle*; but he risked going now and then to the studio on Mont Parnasse to draw him out for a stroll in the Bois de Boulogne, or dinner as pleased his moods, and in return Saint-Gaudens sometimes let Adams go about in his company.

Once Saint-Gaudens took him down to Amiens, with a party of Frenchmen, to see the cathedral. Not until they found themselves actually studying the sculpture of the western portal, did it dawn on Adams's mind that, for his purposes, Saint-Gaudens on that spot had more interest to him than the cathedral itself. Great men before great monuments express great truths, provided they are not taken too solemnly. Adams never tired of quoting the supreme phrase of his idol Gibbon,<sup>8</sup> before the Gothic cathedrals: "I darted a contemptuous look on the stately monuments of superstition." Even in the footnotes of his history, Gibbon had never inserted a bit of humor more human than this, and one would have paid largely for a photograph of the fat little historian, on the background of Notre Dame of Amiens, trying to persuade his readers—perhaps himself—that he was darting a contemptuous look on the stately monument, for which he felt in fact the respect which every man of his vast study and active mind always feels before objects worthy of it; but besides the humor, one felt also the relation. Gibbon ignored the Virgin, because in 1789 religious monuments were out of fashion. In 1900 his remark sounded fresh and simple as the green fields to ears that had heard a hundred years of other remarks, mostly no more fresh and certainly less simple. Without malice, one might find it more instructive than a whole lecture of Ruskin.<sup>9</sup> One sees what one brings, and at that moment Gibbon brought the French Revolution. Ruskin brought reaction against the Revolution. Saint-Gaudens had passed beyond all. He liked the stately monuments much more than he liked Gibbon or Ruskin; he loved their dignity, their unity, their scale; their lines; their lights and shadows; their decorative sculpture; but he was even less conscious than they of the force that creates it all—the Virgin, the Woman—by whose genius "the stately monuments of superstition" were built, through which she was expressed. He would have seen more meaning in Isis<sup>1</sup> with the cow's horns, at Edfoo,<sup>2</sup> who expressed the same thought. The art remained, but the energy was lost even upon the artist.

Yet in mind and person Saint-Gaudens was a survival of the 1500; he bore the stamp of the Renaissance, and should have carried an image of the Virgin round his neck, or stuck in his hat, like Louis XI.<sup>3</sup> In mere time he was a lost soul that had strayed by chance into the twentieth century, and forgotten where it came from. He writhed and cursed at his ignorance, much as Adams did at his own, but in the opposite sense. Saint-Gaudens was a child of Benvenuto Cellini,<sup>4</sup> smothered in an American cradle. Adams was a quintessence of Boston, devoured by curiosity to think like Benvenuto. Saint-Gaudens's art was starved from birth, and Adams's instinct was blighted from babyhood. Each had but half of a nature, and when they

8. Edward Gibbon (1737-1794), English historian, author of *The History of the Decline and Fall of the*

2. Edfu, city on the upper Nile.

3. French king (1422-1483) who reigned frequently



Gift Wilson

Me: Hey, what's up?

Friend: Nothing, much.

Me: Look at this cool Grecian baking place.

Friend: It looks so cool and old.

Me: I'm wondering what the history of this place is.

Friend: Me too.

Me: The structure of this place is so cool.

Friend: Yeah I agree with you.

Me: This place gives me this weird feeling.

Friend: Yeah me too.

Me: This place gives me this feeling of calm and peace.

Friend: Yeah, true that.

WISNIZ

Teen #3 = True, we could talk to  
the principal he might  
know who to contact.

3 months later situation has  
totally changed:

The park is now in very  
good condition and is now a  
preserved landmark. Thanks to  
a group of teenagers who appreciated  
the historical site.

Marlene Moronto  
 Preservation Lectures  
 Homework  
 Mrs. Aron

5.6.98

written by Marlene acted by: Anshea, Francisbell, Mark

3. You are a group of socialites at a party a month after the Croquet House was built. What is your conversation? <sup>mid 1900's</sup>

The scene is, a group of young ladies out for a stroll

Mary: a 30 year old woman with only one child and she is married her husband is a

~~banker~~ banker.

Jeronica: Mary's best friend <sup>is</sup> 26 years old she is not married and owns

a bar and a house in ~~Queens~~ Queens she got both buildings in her father's will.

Marybeth: Mary's younger sister who always seems to find a way to tag along with her sister.

Marybeth is 22 and presently has a fiance

Marybeth lives with her mother her father died but left everything in her mother's name.

~~~~~

Mary: (They are walking by the Greece monument)

What is this new monument. Don't they get tired of building. at this rate taxes will be so high they'll take all your money.

Jeronica: Mary! don't be so negative I think it's beautiful look at the detail a true work of art. besides it probably won't cost Bill a dime or my self.

Marybeth: Veronica's right Mary.....

Mary: still it's a waste... of time and money and in a few years it will have rotted away anyway.

maintain } Veronica: I really don't think so. I think beauty finds its way to last through time.

Marybeth: And either way it gives a sense of beauty to this park and in a few years this will be part of history and our children will see it even if like you Mary they don't like it.

Veronica: Let's change the subject. So how's Bill? Mary: how's his job?

(The scene fades out as they leave the park. <sup>more</sup> the people come pass by and look at the monument)

## "A dream" by Evelyn Sanchez

Setting: Noon; lunchtime for the Irish women working in the sweatshops. All the ladies scramble to eat their lunch (consisting of whatever they could scrape up with the few cents they got paid), before the half hour ended and it was time to get back to sewing. A young girl can be seen, eating alone. Her red, curly hair tied up in a bun. She looks at her measly sandwich and sighs. An older woman sits on the floor across from her. All she has for lunch is a box of raisins. The young girl, who's name is Mattie, walks over to her and offers her half of her sandwich. The older woman, who's name is Wilma, takes it gratefully and asks her to sit.

Wilma - Bless you child. I don't know what I would have done for nourishment if you hadn't come along. My name is Wilma, Wilma O'Hara.

Mattie - very pleased to meet you, I'm Mattie McDougall. Mattie looks at Wilma's hands. They look rough and dried, obviously from many years of labor. Her finger tips were filled with blisters. She looks long and hard at this, and thinks; (This is my future.)

Wilma - Hello, I asked you, how long have you been here?

Mattie - Oh, not that long. About 6 months.

My family and I moved here, because we heard that this was the land of opportunities. You see, my parents can't afford to pay for all the necessities, so I wanted to help out by getting a job. So I figured that America would be the perfect place. Someone even told me once, that the streets were paved with gold. Wilma - Ha! I've heard that one. I came here about 10 years ago, expecting just what you did: The easy life, good jobs. But when I arrived, I saw the cruel reality. No one would hire me. First of all I was a woman, second, I was Irish. I finally arrived in this place. I worked long and hard, and got paid very little. I was as young and beautiful, as you were once. But this place can really change a person. Sometimes I get so angry at things that I just want to scream. I have no where to turn.

Hattie - That is exactly how I feel. We get one lousy day off, and I have to spend it at home, in a cramped room. I have no air circulation, and this NY summer is relentless. Sometimes I feel as if I can't breathe, like I'm trapped. I sometimes wish that I could have a place all of my own. A place surrounded by trees, where I could walk barefoot in the grass, wet with

dew. And a big lake right in the middle of it. So that when I feel trapped, I can just go to this place and relax. Sigh a deep sigh of relief, and enjoy the tranquility and majesty of nature.

Wilma - Keep dreamin' child. Who would build a place like that, and for us. If someone does eventually construct a place like this, you can be sure that they would do everything they can to keep us out of it.

Mattie - I guess you're right, but it's nice to dream.

(The whistle blows, signaling the end of lunch. The ladies all march back to their sewing machines. Wilma, gets up with a sigh. Was she doomed to the fate that Wilma was? She walked back to her place, and began to work. Her thoughts drifted back to the grass, trees, and lake. Someday, she thought, someday.)

Dave Covi

5/6/98

You are an immigrant from Eastern Europe or Italy at the turn of the century. You live in a tenement and work in a sweat shop all week. It is the middle of the summer on a Sunday afternoon before the creation of Central Park or Prospect Park. What would you be thinking, feeling or saying to a friend or family member?

Dave: Good morning, Al.

Al: Morning

Dave: Hey, did you hear about that new park being built in Manhattan.

Al: Yeah, I heard it ~~was~~ is going to be the biggest park in the city.

Dave: Finally after such a long day of work we can have a place to go ~~to~~ where we can relax.

Al: I can picture it now, beautiful green grass and ~~and~~ wonderful tall trees.

Dave: Now I will have somewhere to go when I go out the house and it won't cost me a penny.

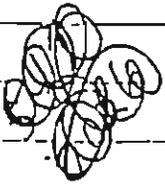
Al: Hey, what do you say we go over there where the park is going to be built and check it out after work.

DAVE. p42

Dave: Sure, I'll see you then.

A1: Alright have a good day at work.

Dave: Yeah, you too.



JOSIAH ROMULO

ROLE PLAYING = ①

Right inside my shop, working, I would be thinking about the park that is going to be built. I'm think about the things that are going to put in the park. Things that will last for a long time so the coming people would see it in the future. I would like to participate in building the park. But I got a job. In the swe shop. Earning 20 cents a day just because I'm in the Government is raising taxes because their building the park for people. Is it worth it? Once the law is up, I would be earning 7 cents or maybe lower. Is it worth it? Deep within my soul, Yes, its worth it. Someone was telling me in great joy and with seriousness. I stopped working and took a peek through the window. Looking at the place where the park is going to be built, I shed a tear. Looking back in the past where I and my mother were spending time in a park in Ireland. Memories just <sup>coming</sup> popped up in my mind and started crying.

## APPENDIX 8

### STUDENT ASSIGNMENT FOR SUMMER INTERN PRESENTATION PRESERVATION WEEK ASSIGNMENT

#### FACTS:

- Yankee Stadium is falling down.
- Recently part of P.S. 153 fell into the street and the school was closed for a week.
- A young girl was killed a few months ago when debris fell from another school in Brooklyn.

#### IMAGINE:

IMAGINE THAT ALL OF THE FOLLOWING BUILDINGS WERE  
DETERIORATED AND IN NEED OF REPAIR:

|                            |                 |                      |
|----------------------------|-----------------|----------------------|
| Empire State Building      | Shea Stadium    | Queens Blvd.         |
| St. Patrick's Cathedral    | Roseland        | St. Adalbert Church  |
| Flushing Meadow Park       | Brooklyn Bridge | St. Bart's Cathedral |
| O.L. of Sorrows Church     | Newtown H.S.    |                      |
| St. James Episcopal Church | #7 Train        |                      |

#### YOUR JOB:

You have been given a huge grant (One million dollars) to repair one of these buildings.

#### ASSIGNMENT:

Make a plan that outlines your approach to this project. This plan includes the historical, the literary, the artistic and the scientific part.

Write a report about the plan (three pages) and prepare an oral presentation in which you can include props and/or visual aids.

You have two weeks to hand in the assignment to one of the four teachers involved in these two days of Preservation Week.

#### Some hints for the assignment:

An excellent project might include these elements: -Identification of the materials used in building -classification of ornamental or structural materials -showing whether materials were original or replacements -identification of the conditions of materials (good, deteriorated, fair, etc) -identification of what caused the deterioration of the materials - recommendations about how to repair the materials

Preservation

ESAY

1/25/17

Justin Hilliard

If I had a grant of One million dollars. The most important part of the bridge I would repair would be the foundations under the ~~feet~~<sup>towers</sup>. I would pay workers to find any damage ~~to them~~<sup>on it</sup> and fix it. Also the cable wires, I would ask them to replace anything that needs it and make sure that what you replace it with is strong. As strong as the original piece. The towers can be dangerous just as bad as the other parts. If Ice forms between the bricks they would fall down onto the passing traffic. I would try to not replace but make new pieces to the bridge that would help it, so that I wouldn't have to pay 1,000 dollars or more, every 5 years to replace old things. I would suggest that the brooklyn bridge should be looked after every year. To avoid accidents.

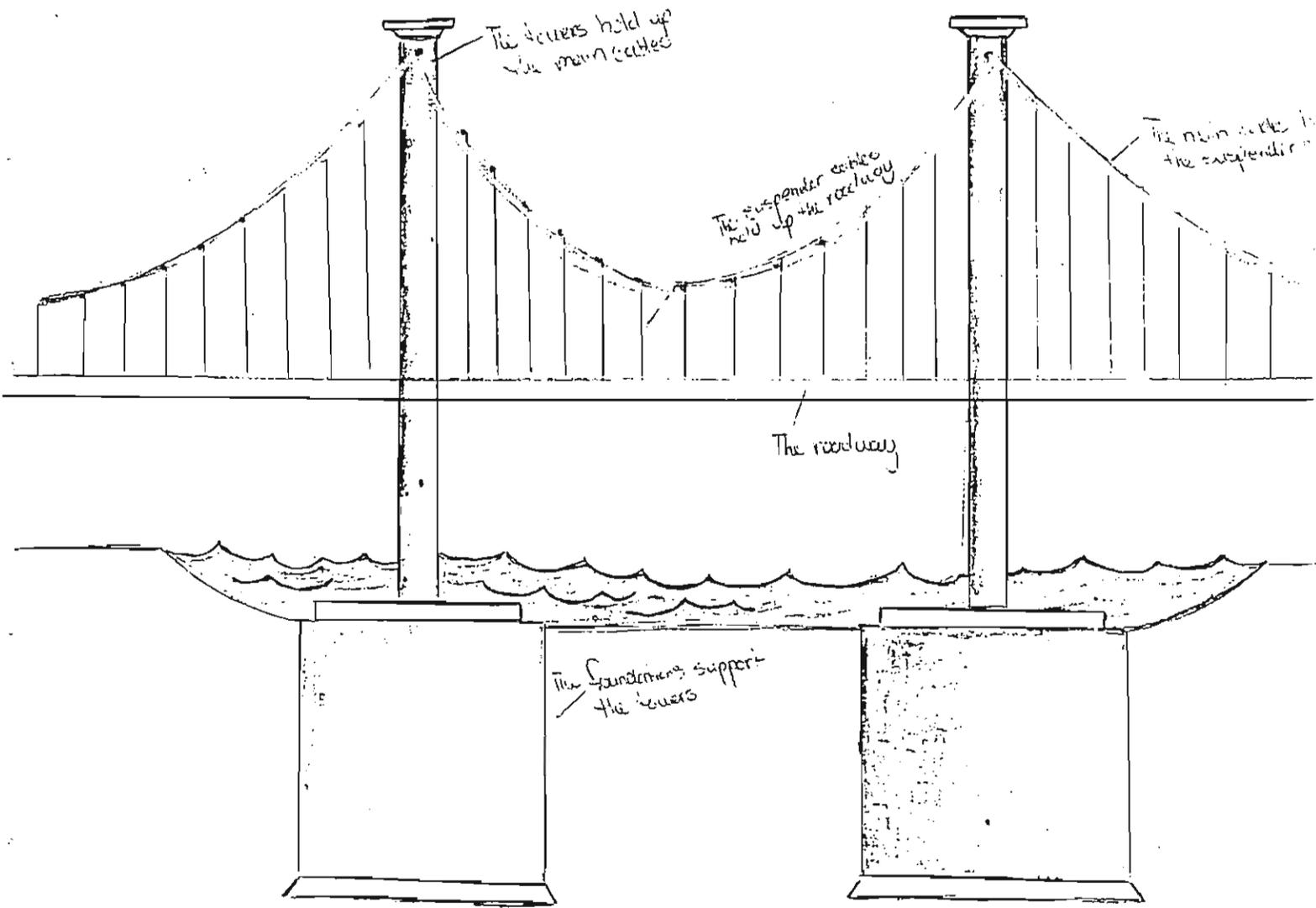
The brooklyn bridge has been here since 1883. Over the years workers have replaced some parts of the bridge to keep it from breaking, falling off or just to prevent any accidents in the future. When you pass by in a car on the bridge you might see some workers repairing it. Most of the parts of the bridge are probably replacements. The bridge is kept safe for passing drivers of boats which sail under the bridge. So therefore the bridge has to be kept in good conditions, so there will be no fatal accidents. There might be some deteriorated parts on the bridge due to the weather or expansion. When it get cold ice might form between bricks and push bricks out or when the weather is hot things like the road & the cable wires might expand and crack. If this happens the bridge might become unsafe.

Justin Hilliard  
5/25/48

-Preservation essay-  
Art & Business High School

STUDENT WORK

The Brooklyn bridge is a special bridge, that has been connecting from Brooklyn to New York for over 112 years. The bridge is a suspension bridge. Instead of the roadway resting on supports, it is suspended in the air, hanging by thick cables made of Iron. The strong materials which make up this bridge have to be very strong to withstand the swift currents and powerful winds of the East River. The foundations support the towers, The towers hold up the main cables, The anchorages hold the ends of the main cables, The main cables hold up the suspender cables. The suspender cables that hold up the roadway and then the roadway itself. The cables used are  $15 \frac{3}{4}$  inches in diameter. The height of towers above the water are  $276 \frac{1}{2}$  feet. The total length of the roadway is 5,989 feet. Strong enough to withstand the traffic which passes on it.



The Brooklyn bridge



Art business

Felipe Giraldo

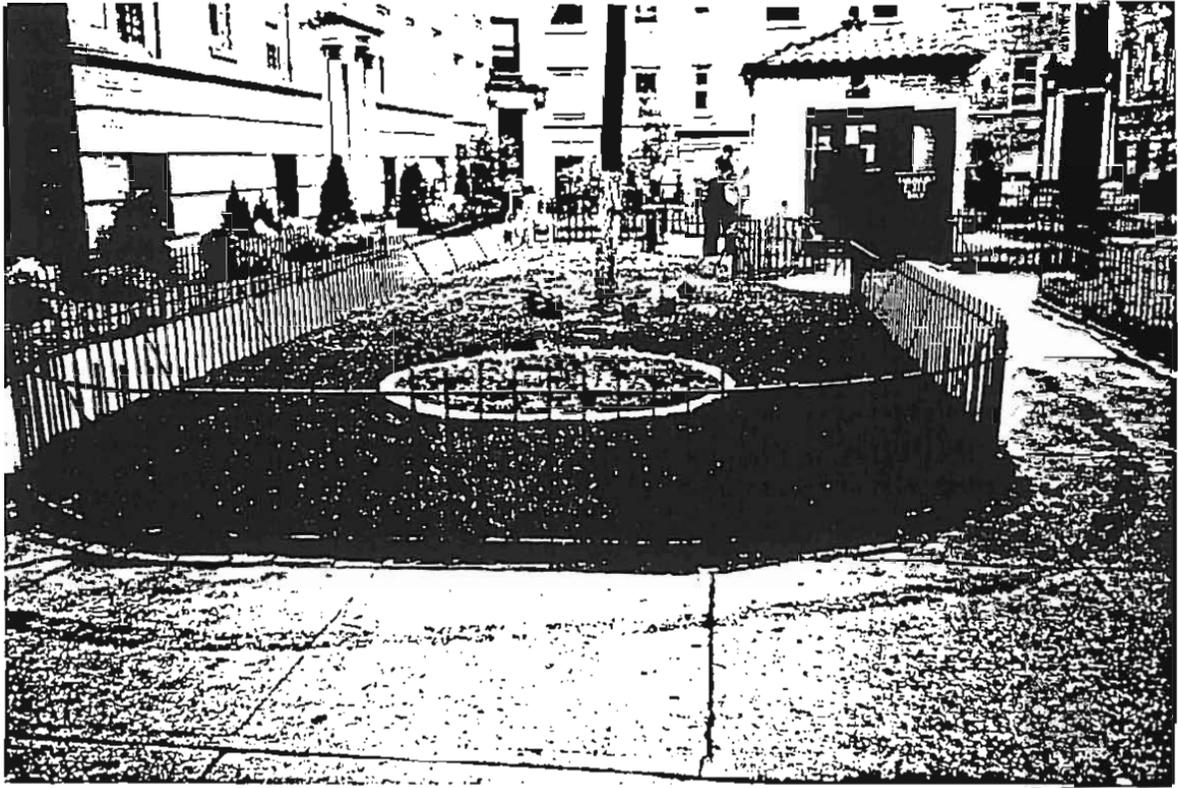
Class 307

May 26,1998

STUDENT WORK

If I were granted one million dollars to fix something that has meaning for some kind in my life I would probably pick the building in which I live. It is the only structure in New York that I really care about because it's in the building that I grew up in .My parents have been living there for about Twenty years now. My building needs a lot of repairs both inside and outside. My building has been standing for about one hundred and twenty years. There has never been a major change in the building due to the fact that the supers who controlled the building never thought it was necessary. So now it's possible for the major changes because now we have the money to do it. Thanks to my grant.

It was the first building in Sunnyside Queens. It was the only building up because there was nothing but farmland around. The owner of the farmland was also the owner of my building. He would Make the Farm workers and their families live in the apartments in which I live so that whenever he would need them to work on the farm, he would just go knock on their door and make them come out. Another reason why the owner of the farmland would make them live in my building so they can wake up really early to begin work .The owner would go to the market so he could also get

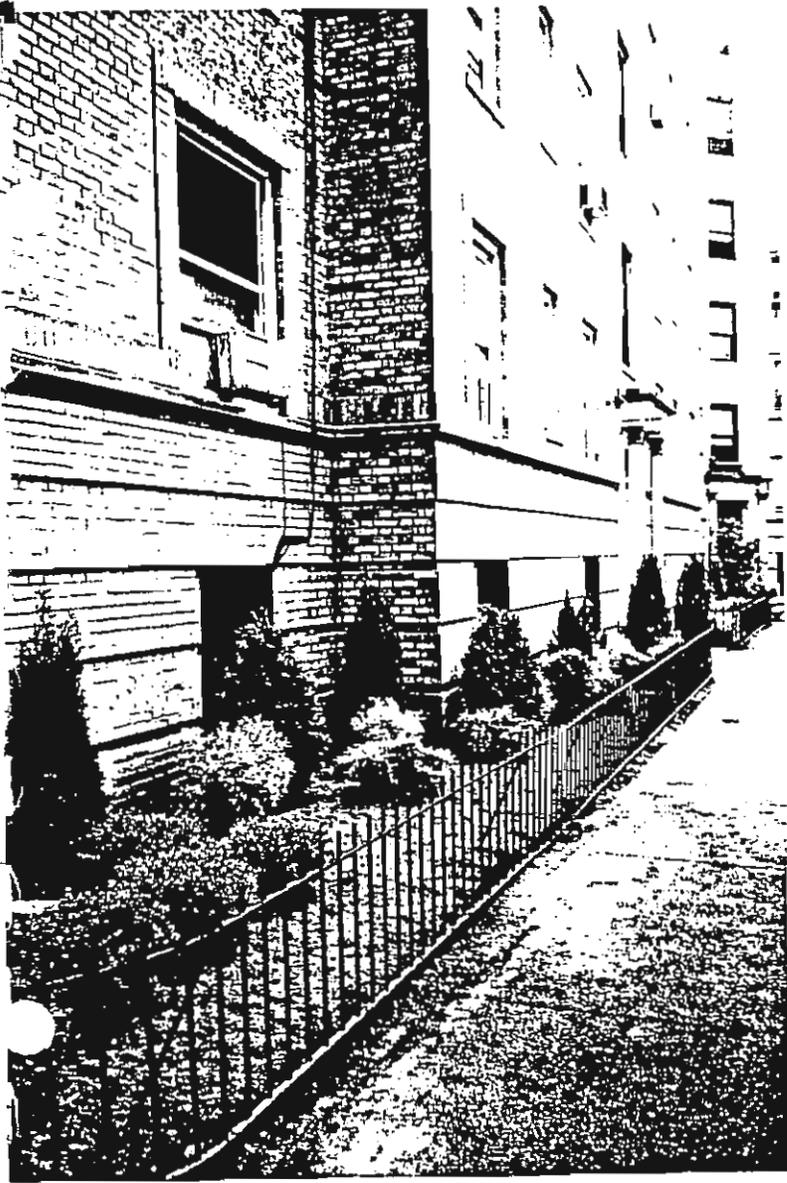


paid for his crops. The owner's name was Patrick O' hare and he would not charge the workers for the rent for the apartments in which they lived in. The owner would just make the workers work for low salaries. My building has had a great influence on the history of Queen's today .The fact that it was the most important building at that time. Everyone that was looking for a job would go to the only place in suunyside were you can go to farm because it was the only building and farm up in queens. It was also the one of the few structures in New York City that had more than two floors of elevation.

The owner of the building was named Patrick O'Hare. He was from Ireland and he came to this country about the 1850's when he was about to be about twenty years old and he died about when he was ninety two years of age which was when he lift the building to one of his cousins. Patrick did not have any sons.

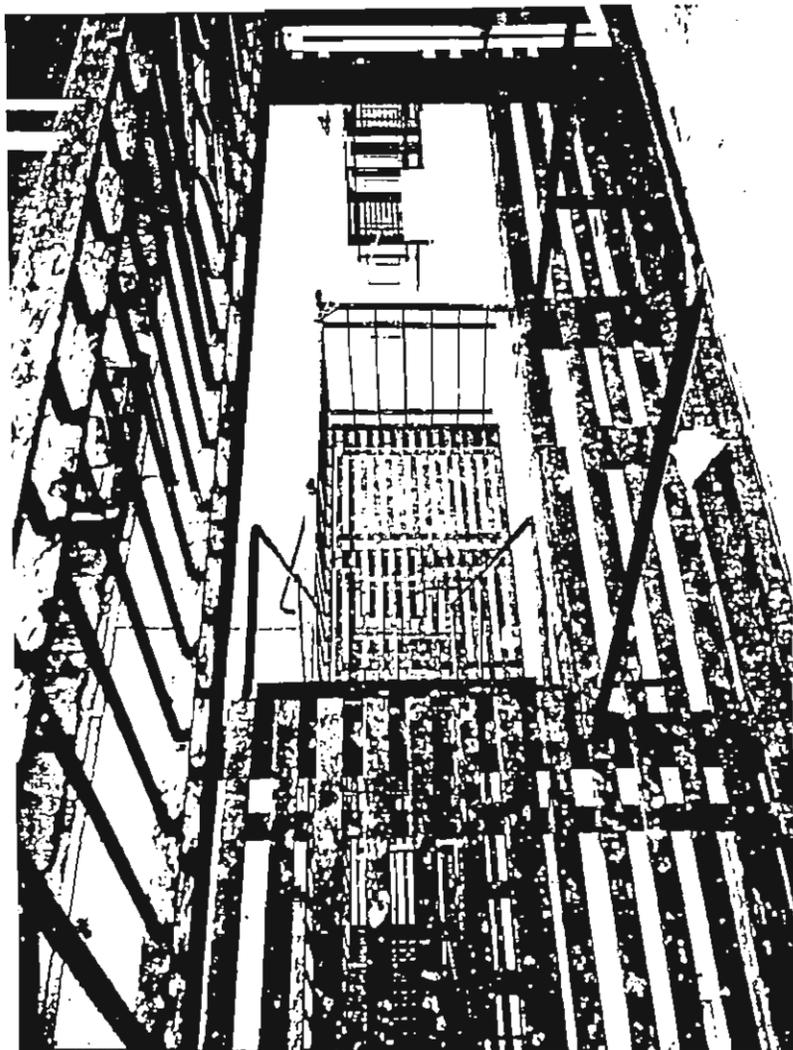
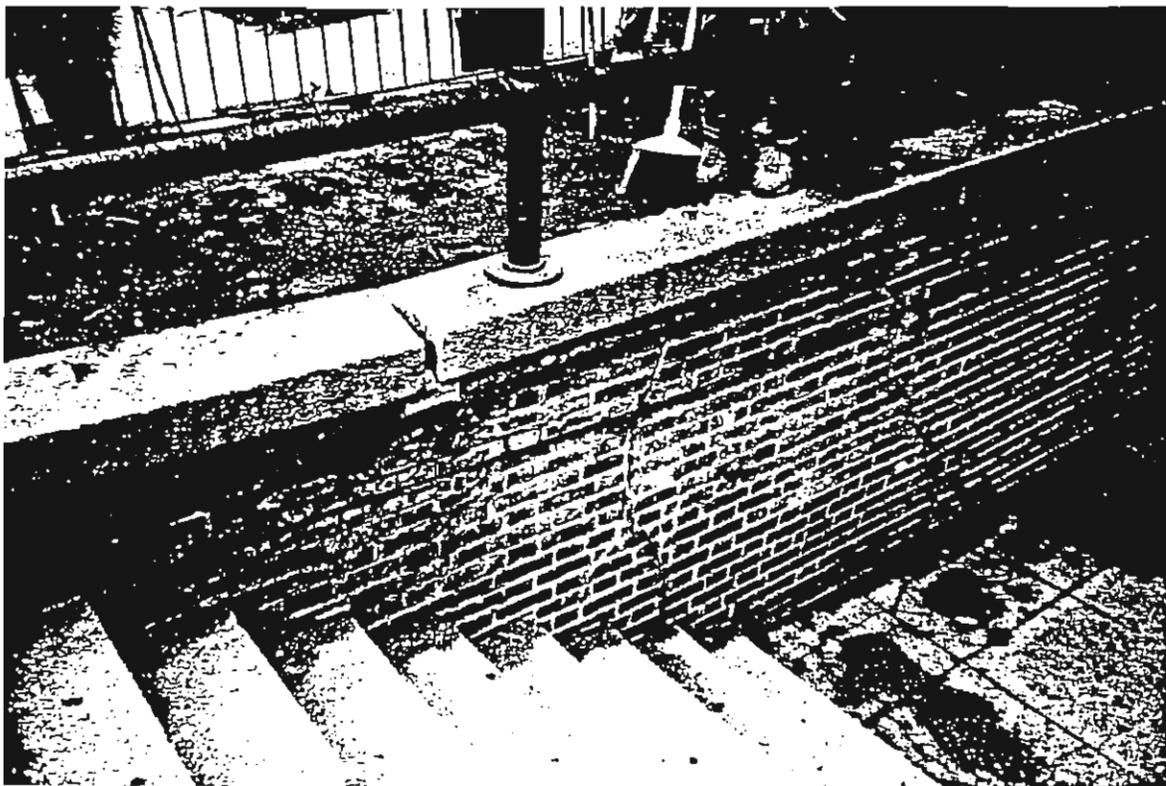
The many things that I have to fix in my building with the grant would be the following. I would have to fix the facing of my building the landscape the firescape the walls, the ceiling, the floor, the steps, the windows. I would have to fix all these things with the money that they have granted me.

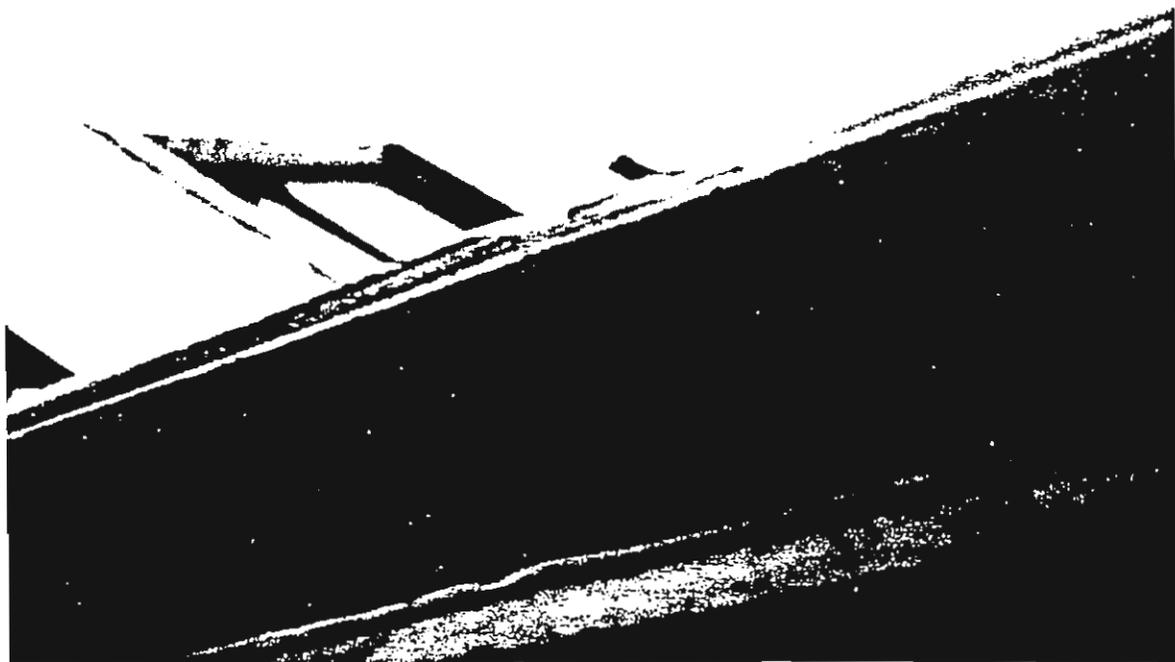
This is how I would complete this and whom I would put, in charge of it and how long it would take me to finish. I would have a contract with Gleason Paints to fix the landscape, firescape, floor, steps, ceiling, and walls.



All of these arrangements would cost me a range of five hundred thousand to six hundred thousand dollars. To fix the windows it would cost about two hundred thousand dollars. With the money that we have left over we would give it to the workers as their Christmas bonus. It would take us about one to two years to complete the whole building. The order in which they have tolled me that they are going to complete the building is by doing the firescape then the ceiling then the walls, then the floor, then the steps, then. They would clean the outside structure of my building with a high-pressure hose that knocks off the entire dirt and makes the building look like new. The last thing that they would do is fixing the landscape of the building.







## APPENDIX 9 Teacher Assessment Survey Instrument and Analysis

### INSTRUMENT:

Date: June 2, 1998  
From: N. Elliot, Center for Architecture and Building Science  
To: Preservation Week Teachers  
Subject: A Survey

You have done a wonderful job in preparing and presenting Preservation Week. Please take a few minutes to answer the questions below so that we can gain more insight into your own evaluation of the process. Please try to complete your answers by using specific examples.

1. What aspects of preparation for Preservation Week did you find most helpful? Are there planning aspects that could have been improved?
2. Did you find that the materials presented were able to be integrated meaningfully into the course you were teaching?
3. What were most meaningful aspects of Preservation Week?
4. How would you judge to contributions make by the various guest speakers? Did you view this as an integral part of the process?



2. Did you find that the materials presented were able to be integrated meaningfully into the course you were teaching? While two teachers affirmed that the materials could be readily integrated, the one teacher noted that the small number of students she reached was somewhat of a problem and another noted that chemistry and physics are more closely related to the subject.

3. What were most meaningful aspects of Preservation Week? Two teachers noted that they appreciated the opportunity to team teach ("seeing colleagues in action was a treat"). Noted also were the students' interest, the number and diversity of presentations, and the exchange of information. One teacher commented that the breadth of the scope of preservation "expanded student and adult minds"; and another teacher felt that the focus should have been on Latin architecture because of the predominantly Latin student population.

4. How would you judge the contributions made by the various guest speakers? Did you view this as an integral part of the process? While three teachers praised the guest speakers, the other expressed reservation ("some of the topics went over the heads of the students").

5. How do you think the students responded to Preservation Week? All of the teachers thought that preservation week went very well. One teacher, however, expressed some reservation about the nature of the summer internship not being absolutely clear.

6. Do you think that the concept of preservation is useful as a vehicle for curriculum building? All of the teachers replied that they thought the concept was useful.

7. Ultimately, how do you view the value of preservation as it applies to secondary education? One teacher found that the concept of preservation was useful; however, the teacher also felt that it was difficult for a thirteen year old to choose a career option. Three of the other teachers had no reservations. "It is truly a foundation for much of education," she wrote. "It brings an awareness of safety, beauty, history, and citizenship that hopefully will last a lifetime and create contributions that will last a lot longer."

8. Now that the project is completed, do you think you will use any of the concepts introduced during Preservation Week in future teaching? All of the teachers reported that they would use the concepts in the future. One teacher noted that "the interdisciplinary experience will inspire me to use the same approach in the future."

Date: June 2, 1998  
 From: N. Elliot, Center for Architecture and Building Science  
 To: Preservation Week Students  
 Subject: A Survey

During May 6 and May 7, you participated in Preservation Week. Please take a few minutes to complete the survey below. Your comments will allow us to make the best presentations we can in the future.

**The English Lesson (Ms. Aron)**

1. Please rate the clarity of the English Lesson.

|                    |            |              |                     |                 |
|--------------------|------------|--------------|---------------------|-----------------|
| 5                  | 4          | 3            | 2                   | 1               |
| Extremely<br>Clear | Very Clear | Mostly Clear | Somewhat<br>Unclear | Totally Unclear |

2. How interesting did you find the English Lesson?

|                          |                     |                         |               |                |
|--------------------------|---------------------|-------------------------|---------------|----------------|
| 5                        | 4                   | 3                       | 2             | 1              |
| Extremely<br>Interesting | Very<br>Interesting | Somewhat<br>Interesting | Mostly Boring | Totally Boring |

3. How useful was the English Lesson in helping you learn more about preservation?

|                     |             |                    |                    |         |
|---------------------|-------------|--------------------|--------------------|---------|
| 5                   | 4           | 3                  | 2                  | 1       |
| Extremely<br>Useful | Very Useful | Somewhat<br>Useful | Not Very<br>Useful | Useless |

**The Social Studies Lesson (Mr. Lawlor)**

4. Please rate the clarity of the Social Studies Lesson.

|                    |            |              |                     |                 |
|--------------------|------------|--------------|---------------------|-----------------|
| 5                  | 4          | 3            | 2                   | 1               |
| Extremely<br>Clear | Very Clear | Mostly Clear | Somewhat<br>Unclear | Totally Unclear |

5. How interesting did you find the Social Studies Lesson?

|                          |                     |                         |               |                |
|--------------------------|---------------------|-------------------------|---------------|----------------|
| 5                        | 4                   | 3                       | 2             | 1              |
| Extremely<br>Interesting | Very<br>Interesting | Somewhat<br>Interesting | Mostly Boring | Totally Boring |

6. How useful was the Social Studies Lesson in helping you learn more about preservation?

|                  |             |                 |                 |         |
|------------------|-------------|-----------------|-----------------|---------|
| 5                | 4           | 3               | 2               | 1       |
| Extremely Useful | Very Useful | Somewhat Useful | Not Very Useful | Useless |

**The Science Lesson (Mr. McGuire, Ms. Ottavino)**

7. Please rate the clarity of the Science Lesson.

|                 |            |              |                  |                 |
|-----------------|------------|--------------|------------------|-----------------|
| 5               | 4          | 3            | 2                | 1               |
| Extremely Clear | Very Clear | Mostly Clear | Somewhat Unclear | Totally Unclear |

8. How interesting did you find the Science Lesson?

|                       |                  |                      |               |                |
|-----------------------|------------------|----------------------|---------------|----------------|
| 5                     | 4                | 3                    | 2             | 1              |
| Extremely Interesting | Very Interesting | Somewhat Interesting | Mostly Boring | Totally Boring |

9. How useful was the Science Lesson in helping you learn more about preservation?

|                  |             |                 |                 |         |
|------------------|-------------|-----------------|-----------------|---------|
| 5                | 4           | 3               | 2               | 1       |
| Extremely Useful | Very Useful | Somewhat Useful | Not Very Useful | Useless |

**The Art Lesson (Mr. Serra)**

10. Please rate the clarity of the Art Lesson.

|                 |            |              |                  |                 |
|-----------------|------------|--------------|------------------|-----------------|
| 5               | 4          | 3            | 2                | 1               |
| Extremely Clear | Very Clear | Mostly Clear | Somewhat Unclear | Totally Unclear |

11. How interesting did you find the Art Lesson?

|                       |                  |                      |               |                |
|-----------------------|------------------|----------------------|---------------|----------------|
| 5                     | 4                | 3                    | 2             | 1              |
| Extremely Interesting | Very Interesting | Somewhat Interesting | Mostly Boring | Totally Boring |

12. How useful was the Art Lesson in helping you learn more about preservation?

|   |   |   |   |   |
|---|---|---|---|---|
| 5 | 4 | 3 | 2 | 1 |
|---|---|---|---|---|

Extremely  
Useful

Very Useful

Somewhat  
Useful

Not Very  
Useful

Useless

### The Guest Speakers

13. How interesting did you find the information presented by the Guest Speakers?

5  
Extremely  
Interesting

4  
Very  
Interesting

3  
Somewhat  
Interesting

2  
Mostly Boring

1  
Totally Boring

### Two Final Questions

14. What did you like best about Preservation Week? Give at least two specific examples.

15. How could Preservation Week have been improved? Give at least two specific examples.

ANALYSIS:

ASSESSMENT SURVEY

Assessment of the Students

The first part of the assessment asked students to respond to questions on each of the four lessons (English, Social Science, Science, and Art) in the areas of clarity of the lesson, its ability to engage interest, and its usefulness. Nineteen students responded to the survey. The results are presented below:

The English Lesson (Ms. Aron)

1. Please rate the clarity of the English Lesson.

| 5               | 4           | 3            | 2                | 1               |
|-----------------|-------------|--------------|------------------|-----------------|
| Extremely Clear | Very Clear  | Mostly Clear | Somewhat Unclear | Totally Unclear |
| 10 responses    | 7 responses | 3 responses  |                  |                 |

2. How interesting did you find the English Lesson?

| 5                     | 4                | 3                    | 2             | 1              |
|-----------------------|------------------|----------------------|---------------|----------------|
| Extremely Interesting | Very Interesting | Somewhat Interesting | Mostly Boring | Totally Boring |
| 3 responses           | 10 responses     | 6 responses          |               |                |

3. How useful was the English Lesson in helping you learn more about preservation?

| 5                | 4            | 3               | 2               | 1       |
|------------------|--------------|-----------------|-----------------|---------|
| Extremely Useful | Very Useful  | Somewhat Useful | Not Very Useful | Useless |
| 4 responses      | 12 responses | 3 responses     |                 |         |

The Social Studies Lesson (Mr. Lawlor)

4. Please rate the clarity of the Social Studies Lesson.

| 5               | 4           | 3            | 2                | 1               |
|-----------------|-------------|--------------|------------------|-----------------|
| Extremely Clear | Very Clear  | Mostly Clear | Somewhat Unclear | Totally Unclear |
| 15 responses    | 4 responses |              |                  |                 |

5. How interesting did you find the Social Studies Lesson?

|                          |                     |                         |               |                |
|--------------------------|---------------------|-------------------------|---------------|----------------|
| 5                        | 4                   | 3                       | 2             | 1              |
| Extremely<br>Interesting | Very<br>Interesting | Somewhat<br>Interesting | Mostly Boring | Totally Boring |
| 9 responses              | 8 responses         | 2 responses             |               |                |

6. How useful was the Social Studies Lesson in helping you learn more about preservation?

|                     |             |                    |                    |         |
|---------------------|-------------|--------------------|--------------------|---------|
| 5                   | 4           | 3                  | 2                  | 1       |
| Extremely<br>Useful | Very Useful | Somewhat<br>Useful | Not Very<br>Useful | Useless |
| 10 responses        | 7 responses | 2 responses        |                    |         |

The Science Lesson (Mr. McGuire, Ms. Ottavino)

7. Please rate the clarity of the Science Lesson.

|                    |             |              |                     |                 |
|--------------------|-------------|--------------|---------------------|-----------------|
| 5                  | 4           | 3            | 2                   | 1               |
| Extremely<br>Clear | Very Clear  | Mostly Clear | Somewhat<br>Unclear | Totally Unclear |
| 2 responses        | 9 responses | 7 responses  |                     |                 |

8. How interesting did you find the Science Lesson?

|                          |                     |                         |               |                |
|--------------------------|---------------------|-------------------------|---------------|----------------|
| 5                        | 4                   | 3                       | 2             | 1              |
| Extremely<br>Interesting | Very<br>Interesting | Somewhat<br>Interesting | Mostly Boring | Totally Boring |
| 2 responses              | 2 responses         | 12 responses            | 3 responses   |                |

9. How useful was the Science Lesson in helping you learn more about preservation?

|                     |              |                    |                    |         |
|---------------------|--------------|--------------------|--------------------|---------|
| 5                   | 4            | 3                  | 2                  | 1       |
| Extremely<br>Useful | Very Useful  | Somewhat<br>Useful | Not Very<br>Useful | Useless |
| 4 responses         | 11 responses | 4 responses        |                    |         |

The Art Lesson (Mr. Serra)

10. Please rate the clarity of the Art Lesson.

|   |   |   |   |   |
|---|---|---|---|---|
| 5 | 4 | 3 | 2 | 1 |
|---|---|---|---|---|

|                                    |                           |              |                     |                 |
|------------------------------------|---------------------------|--------------|---------------------|-----------------|
| Extremely<br>Clear<br>13 responses | Very Clear<br>6 responses | Mostly Clear | Somewhat<br>Unclear | Totally Unclear |
|------------------------------------|---------------------------|--------------|---------------------|-----------------|

11. How interesting did you find the Art Lesson?

|                                               |                                         |                              |                    |                     |
|-----------------------------------------------|-----------------------------------------|------------------------------|--------------------|---------------------|
| 5<br>Extremely<br>Interesting<br>10 responses | 4<br>Very<br>Interesting<br>9 responses | 3<br>Somewhat<br>Interesting | 2<br>Mostly Boring | 1<br>Totally Boring |
|-----------------------------------------------|-----------------------------------------|------------------------------|--------------------|---------------------|

12. How useful was the Art Lesson in helping you learn more about preservation?

|                                         |                                 |                                        |                         |              |
|-----------------------------------------|---------------------------------|----------------------------------------|-------------------------|--------------|
| 5<br>Extremely<br>Useful<br>9 responses | 4<br>Very Useful<br>7 responses | 3<br>Somewhat<br>Useful<br>3 responses | 2<br>Not Very<br>Useful | 1<br>Useless |
|-----------------------------------------|---------------------------------|----------------------------------------|-------------------------|--------------|

As this part of the survey reveals, students were most positive about the information presented during Preservation Week. On each of the 12 questions, students largely gave scores of 5 or 4 to each item. Only the Science Lesson appears to have drawn a rather mixed response.

If we take the response of “extremely interesting” to be the highest score on the survey, we find that the Social Science Lesson was the clearest. The English Lesson the most interesting, and the Social Science and the Art the most useful. Overall, the Social Science Lesson received the highest scores, followed by the Art Lesson, the English Lesson, and the Science Lesson.

In the second part of the survey, students were also asked to assess how interesting they found the information presented by the guest speakers. That information is provided below:

|                                               |                                         |                                             |                    |                     |
|-----------------------------------------------|-----------------------------------------|---------------------------------------------|--------------------|---------------------|
| 5<br>Extremely<br>Interesting<br>13 responses | 4<br>Very<br>Interesting<br>2 responses | 3<br>Somewhat<br>Interesting<br>2 responses | 2<br>Mostly Boring | 1<br>Totally Boring |
|-----------------------------------------------|-----------------------------------------|---------------------------------------------|--------------------|---------------------|

The overwhelming response is that students found the presenters extremely interesting.

In the final part of the survey, students were asked what they liked best about Preservation Week. They were also asked how Preservation Week could have been improved. They answered that they liked the practical information presented best. As

one student wrote, "The most interesting things were the guest speakers and knowing that there are opportunities for jobs for us in preservation in the future." And, while many felt that the Week was fine as is, the most reported criticism was that students felt that more attention to hands-on work might have been useful.

## APPENDIX 11

### REFLECTIONS ON PRESERVATION WEEK-6-22

Preparations for Preservation Week included selection and invitations to guest lecturers made up of experts in the preservation and restoration field, and politicians supportive of the preservation and restoration effort. As well, students had to be selected to participate in the program. It is significant that these students were not necessarily selected because of their intellectual prowess, but rather for a wide range of factors, some of which had nothing to do with, necessarily, the success of the Week. For instance, some students were chosen for participation because their teachers felt that the nature of this "special" event would inspire and energize them, and that these were students who needed such an event in order for them to realize their potentials; other students of course were selected because their prior achievements, it was felt, needed to be rewarded, and/or because they demonstrated that these students would be sure to be in attendance for the full panoply of events and would be engaged by them. In any case, the faculty participants from both NJIT and HSAB, as the actual week approached, planned extensively both together and separately, and were full of excitement about it.

Preservation Week was a smashing success. In fact, it far exceeded all of the most optimistic expectations. Even more, the entire event evolved in ways no one had anticipated. What especially is noteworthy now, in hindsight, was the unexpected synergy the Week created, in which the series of events, in their planning and execution, brought students and faculty together with experts, administrators and politicians,

according to a new vision for the future of preservation in New York City and ultimately around the country. To be sure, each of these groups came away from the Week with a deepened appreciation of the problems, urgency, but also the hope for Preservation. Furthermore, it is fair to say that each group came particularly to appreciate the roles that others must play within the total preservation effort.

The success of the Week, in other words, can to a great extent be measured by the degree to which it developed as something that met the Center's expectations. An expanded community came into being. Again, the essence of this expanded community was a product of the synergy created through an event shared by its participants, many of whom never knew one another before. The Week turned out to be a learning experience in the narrow sense, of course, students internalized the basic issues and essential practices of preservation and restoration, and that they came to appreciate how vitally important preservation is, and how both prolific and pressing an activity it has become, around the world and especially in the New York City area. As well, in the broad sense of there being at least four capital stocks : human--groups of participants comprised of: students, teachers, and ex-cathedra experts from the world of preservation; social --the policy makers from the government sector; material--all who participated came to understand and appreciate the role of the students; natural-- fashioning and maintaining a healthy and dynamic preservation movement now and in the future. Teaching them and training them for jobs in the field is truly worth the investment!

In the largest view, what came out of the Week was the realization that preservation can only be sustained when we fully realize all of our urban environmental capital stock. The week demonstrated that there is reason to entertain the greatest hope that urban preservation will not only be sustained but will flourish. Such a point of view is fostered by the enthusiasm, intelligence and industry of the Preservation Week participants. The faculty's well thought out pedagogical designs were implemented as planned. The Art, Social Studies and English lessons introduced to the students, within the context of the Preservation theme, to the fundamental dynamics of art, architecture, theory of aesthetics, literature, history and economics. The science combined issues of practice and theory of chemistry and physics as well as engineering design, revolving around actual problems that restorationists confront.. The HSAB teachers, NJIT staff, and professional speakers were unprepared for the depth and variety of student response ( see "Outcomes" below).

The sequence of lessons, presentations, as well as students activities were intense. It soon became apparent, moreover, that the Week's fulfillment would ride on the ability of the students to pay prolonged attention to what was at hand. As they grappled with the various concepts being taught in each of the lessons they continually exhibited an exuberance and incisiveness about the subject matter. They not only gave their respect and attention to their teacher and each of the guest speakers, but displayed to a great extent the fact that they were moved by the presentations. The students' work in response to the two days of talks and lessons bears this out, as do the video tapes of the Week. The faculty from both HSAB and NJIT were equally impressed by the students and by the guest speakers as well. Remarkable also was how pleased the speakers were with audience response. There were invariably many questions, followed by answers that

prompted further questions. It is fair to say that everyone came away from this experience with a firm belief that preservation is a promising field of endeavor, generally, and specifically, and that a High School for Preservation Arts should and will soon become a reality.

**PRESERVATION WEEK  
HIGH SCHOOL OF ARTS AND BUSINESS**

**SPONSORED BY  
NJIT CENTER FOR ARCHITECTURE AND BUILDING SCIENCE RESEARCH  
National Center for Preservation Technology and Training, National Parks Service**

**PARTICIPATION AWARD CEREMONY**

**STUDENT PROJECT PRESENTATIONS**

**JUNE 3, 1998**

- I. Welcome: Principal Stephen Drakes**
- II. Word of Thanks: Kate Burns Ottavino, Director, Preservation Technology, NJIT CABS**
- III. Awarding of Certificates: Principal Drakes and Ms. Ottavino**
- IV. Student Presentations of Preservation Week Assignment**

**Refreshments will be Served**

**Acknowledgements:**

NJIT/CABS would like to offer a special thank you to Principal Drakes and his staff; and the participating teachers from the High School of Arts and Business for their cooperation and excellent presentations: Lynda Aron, English; Kevin Lawlor, Social Studies; Kieran McGuire, Science, Bryan Serra, Art. Also a special thanks to Bryan Serra for the use of his most stimulating Art Room.



CENTER FOR ARCHITECTURE AND BUILDING SCIENCE RESEARCH

New Jersey Institute of Technology

*A Public  
Research University*

Proposal To Create A Vocational/Technical High School For The Restoration Arts:

Submitted by Kate Burns Ottavino, M. Arch., M.S. Hist. Pres.  
Director : Preservation Technology  
Center for Architecture & Building Science Research  
New Jersey Institute of Technology

**The Need:**

The need to develop an educational training program for a high school curriculum in the Restoration Arts stems from a shortage of trained restoration artisans in the building trades, a shortage acknowledged and of concern to professional architects, engineers and preservationists, educators, contractors, and building owners alike. In large measure this is the result of an ever increasing number of historic districts, heritage areas, landmark and landmark eligible structures. The increase in our nation's awareness and desire to protect and perpetuate the life of its historic properties stems from the enactment of Federal legislation, The Historic Preservation Act, establishing the Advisory Council on Historic Preservation and the National Register of Historic Places in 1966. This Act also spurred on the formation of city landmark commissions across the country. However, for several reasons, training in both the public and private sector has not kept pace with the growing needs of the residential and main street commercial renovation/restoration markets. These reasons include managerial commitment, cost, and lack of resources for ongoing funding. As a result there is a greater level of demand for, than there is a supply of, qualified restoration artisans in the market place today (World Monuments Fund, "Sustainability of the Restoration Arts", 1996).

Despite this shortage a recent analysis of the construction industry by the American Institute of Architects shows that spending in the renovation/restoration sector of the building industry had increased at a rate of seven per cent over the past fifteen years and now occupies forty-four percent of the volume of construction work in the United States. the jobs available are high quality, skilled jobs that will afford the graduate of a Preservation High School a challenging, stimulating, and rewarding future.

## Curriculum Goals and Requirements

Currently, most preservation programs are geared to the college and masters degree level participant, giving rise alternatively to either a white-collar" or counter-culture image of restoration practice. For more hands-on training these academic programs are supplemented by short term 'intensive training' sessions provided by nonacademic institutions or centers and at conferences in the form of workshops. Such "intensive training" courses are generally open to all who wish to participate and pay the requisite fees. These courses are usually brief in nature addressing either the state of the art of a particular area in preservation or a specific problem commonly found during the restoration of certain building materials such as 'How to Clean Masonry' or 'How to Make a Replica Plaster Medallion.'

What does not exist is a program geared to developing a more traditionally trade-based artisan specializing in restoration. This is the constituency that is needed to address the growing restoration needs of small business' and homeowners Critical to the development of a broader based restoration artisan constituency is a systematic restoration arts training program at an apprenticeship level. The systematic training required by such a program could be most successfully realized within the framework of a Vocational/Technical High School. There are many aspects to training at this level which are helpful to the student. Among them is the discipline required to be effective in an apprenticeship program. Such discipline is best fostered within a framework that is prepared to offer the appropriate professional and social support systems that are needed to integrate students into the expectations and requirements of the working world.

The concept of a Vocational/Technical High School program for the Restoration Arts is modeled in part upon the development of vocational high schools for industries such as the automotive, aviation, and printing trades before World War II as well as the High School for the Performing Arts in New York City. In brief, the program would consist of an integrated curriculum devoted to the development of young peoples' abilities in the restoration arts by way of hands-on and classroom training. An integrated curriculum would provide an emphasis on the building arts in the context of the academic curriculum as well as the practical trade techniques provided by shop training. For example, in an American History course Thomas Jefferson's choice of the classical style of architecture to represent our young nation would be discussed in the context of the Greek ideal of a democracy as a model for the United States Government. Other subjects such as Chemistry, Physics and Geology would be illustrated with experiments involving the properties and constituents of building materials including how they are formed and how they deteriorate. Class trips would be taken to look at neighborhoods with historic brick patterns and identify case studies of building material deterioration such as stone stoops, metal cornices, and wooden porches.

Shop work would include introductory courses in each of the building materials to enable the student to select the trade of his/her choice. The curriculum would provide the student, in combination with classroom training, a minimum of 480 hours of training in the restoration trade of their choice prior to the student's undertaking a summer internship program. Such preliminary training would enable the student to accrue on-the-job training with the status of an

apprentice during the summer. Over a period of three to four summers a full year of apprenticeship could be served by the time of graduation. Means to accelerate the apprenticeship program for interested and qualified students could be explored depending upon the number of hours allocated during the academic year and the degree of industry participation.

A critical component to the success of a high school program for the Restoration Arts will be its link to local industry. Existing industry will be able to provide the infrastructure for skilled apprenticeships to be undertaken in a realistic environment. Such an environment will provide the necessary equipment for training in its proper context with journeymen supervisors undertaking real life projects. Further, by collaborating with industry the student will get the quality training without a massive and redundant investment in "tooling-up" by the school.

In short, the thrust of the curriculum is to create an integrated academic and hands-on restoration training program whereby an educated and enlightened workforce capable of highly skilled restorations in the traditional building arts can be developed

### **The Role of the Center for Architecture & Building Science Research:**

The Staff of NJIT are uniquely qualified to develop the criteria and curriculum for a Vocational/Technical training program which will satisfy the skills and academic development requirements of a Restoration Arts Training Program. The experience of our staff in the academic requirements of the discipline as well as the hands on skills development of the restoration arts represent over twenty-five years of leadership in the field of Historic Preservation.

The technical and academic areas of training will be integrated by the Center into the existing curriculum as provided by the current Vocational/Technical High School course selection. The curriculum for each of the courses in both technical and academic areas will be modified by the Center to include the core requirements of a restoration arts program. In addition, criteria for the qualifications of supplementary faculty for teaching the historic preservation aspects of these courses will be prescribed. Actual faculty members can be preliminarily recommended by the Center for specialized teaching unique to the restoration arts.

The Occupational Profile and Shop competency Certificate requirements of the State will also be reviewed and specific criteria for Restoration Arts performance levels will be proposed for incorporation into the Certificate's requirements. Selection criteria for industry participation in an apprenticeship program will be identified by the Center as well as potential local industry participants.

An advisory board is recommended for a Preservation High School. The Center would recommend those institution whose members would be appropriate for membership on such a board as well as prescribing the qualification of additional individual members who would be desirable. Actual board members can be proposed by the Center. the purpose of the board is to ensure that a consensus is achieved, one that will be recognized by the historic preservation profession throughout the state and nationally, on the academic and vocational/technical goals of the restoration arts program as well as the means and methods to realize them.

Research University

**DEVELOPING A HIGH SCHOOL FOR THE PRESERVATION ARTS****CENTER FOR ARCHITECTURE & BUILDING SCIENCE RESEARCH AND  
THE WORLD MONUMENT FUND****Background**

The Preservation High School Project grows out of the symposium, *Employment Strategies in the Restoration Arts Craft Training in the Service of Historic Preservation*, sponsored by the World Monument Fund (WMF) in 1993. The symposium suggested that preservationists join forces with existing training programs, strengthen the socio-economic rationale in support of historic preservation, and raise public and political awareness about the value of historic preservation. In addition to these objectives, New York City Council Member Ken Fisher envisioned the need to "establish a high school dedicated to preservation training." The WMF, acting on the directives of the meeting, enlisted Kate Burns Ottavino to develop a *Sustainable Model for Restoration Arts Training*. The current Preservation Arts High School development project is based on this *Sustainable Model*.

**Current Project Status**

The NJIT Center for Architecture and Building Science Research (CABSR) is currently working with the World Monuments Fund, New York City Board of Education, and Councilmember Ken Fisher's office to make the goal of the Preservation High School Project a reality in New York City. In order to realize this goal, the Center has devised the parallel track approach of an internship program and a high school curriculum development

This year's internship program will include a *Preservation Week* at the High School for Arts and Business in Corona, Queens and a summer internship for three students who will be selected on their performance during the spring. The Center anticipates partial support for the 1998 PRIP program from the National Center for Preservation Technology and Training of the National Park Service.

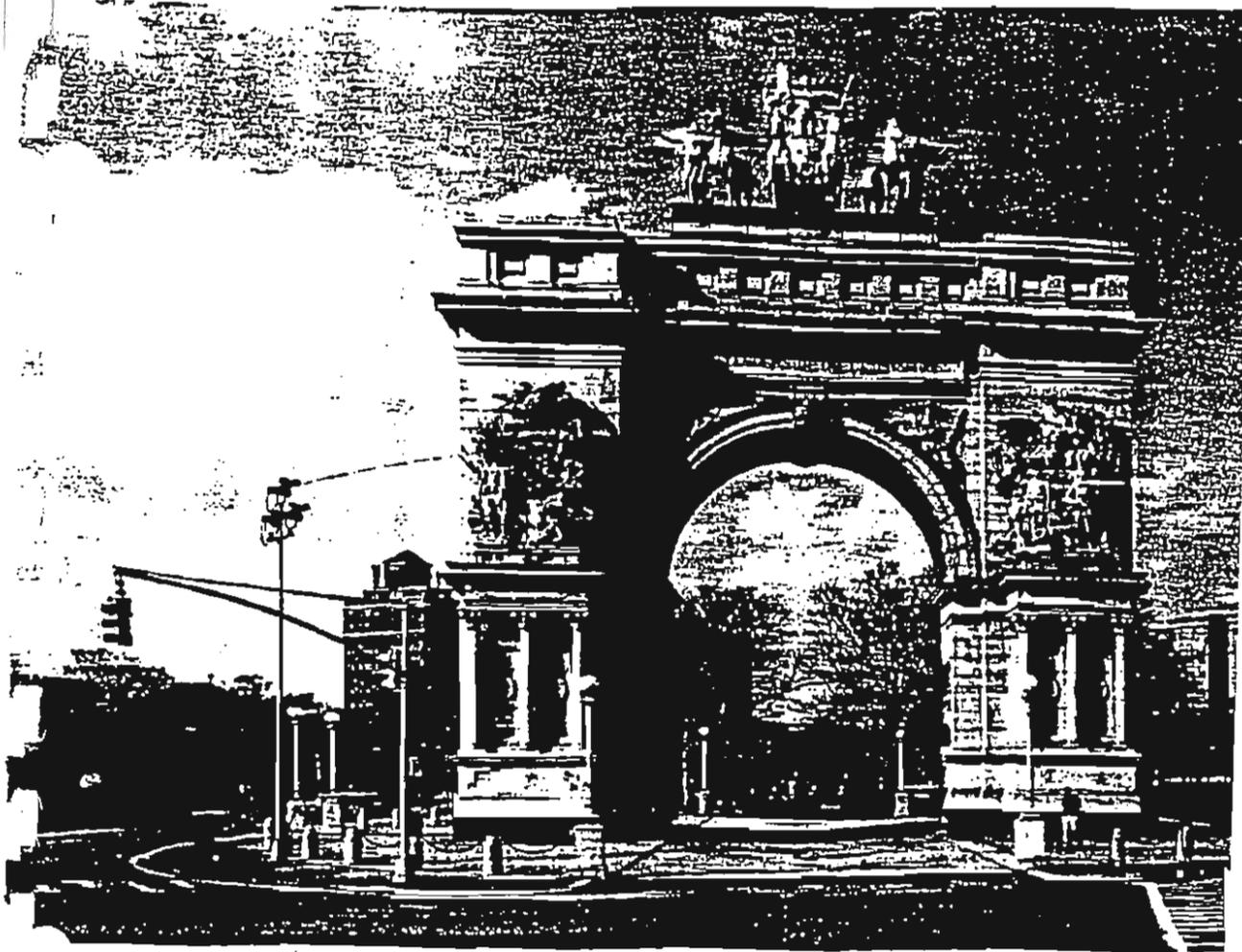
On the curriculum development track, the NJIT Center is working with the NYC Board of Education's K-12 Curriculum Frameworks to outline the curriculum framework for Preservation High School. The threefold goal is to create a complete high school curriculum that will meet the mandatory requirements of the New York State Board of Regents, qualify students for admission to post secondary programs, and provide them with the equivalent of a one year trade internship. Once the Preservation High curriculum outline has been certified to align with these criteria, the Center will be in a strong position to seek funding to support the development of specific components from appropriate sponsors such as the National Endowment for the Humanities and the National Science Foundation.

**Conclusion**

The development process of Preservation High will proceed according to the stages prescribed in the NYC Board of Education's new school development process. The currently planned internship PRIP program and *Preservation Week* at the High School for Arts and Business will provide the valuable ability to test, assess and evaluate curriculum ideas on a small scale, and to incorporate feedback into the overall project design. The collaborative efforts of the Center, the New York City Board of Education, the World Monument Fund and Councilman Ken Fisher are directed at creating Preservation High School. In the process of realizing this project they join forces with the broader global heritage education movement to stimulate and sustain preservation awareness, understanding and capability among current and future generations.



*The Peristyle.*



Soldiers' and Sailors' Memorial Arch



Lefferts Homestead

## PROSPECT PARK

Brooklyn

Prospect Park, design begun, 1865;  
construction begun 1866

Bounded by Prospect Park West, Bartel-  
Pritchard Circle roadway, Prospect Park  
Southwest, Park Circle roadway, Parkside  
Avenue, Ocean Avenue, Flatbush Avenue,  
and Grand Army Plaza roadway

Architects: Frederick Law Olmsted and  
Calvert Vaux

Designated: November 25, 1975

Lefferts Homestead, 1777-83, moved 1918  
Prospect Park (Flatbush Avenue at Empire  
Boulevard)

Architect: Unknown

Designated: June 21, 1966

Litchfield Villa, completed 1856  
Prospect Park (Prospect Park West  
at Flatbush Avenue)

Soldiers' and Sailors' Memorial Arch,  
1889-92

Grand Army Plaza

Architect: John H. Duncan

Designated: October 16, 1973

Grecian Shelter, completed 1905

Prospect Park (near Parkside Avenue)

Architects: McKim, Mead & White

Designated: December 10, 1968

Boathouse, 1904

Prospect Park (on the Lullwater)

Architects: Helmle & Huberty

Designated: October 14, 1968

Prospect Park, 526 acres of picturesque landscape dotted by flower gardens, winding pathways, and historic buildings, is one of the largest and most scenic urban parks in the United States. It was designed, starting in 1865, by Frederick Law Olmsted and Calvert Vaux, the landscape architects who had earlier been responsible for Central Park in Manhattan, starting in 1857. Like Central Park, Prospect Park offered the urban dweller a pastoral escape from the congestion of city life. As Egbert L. Viele, chief topographical engineer of the project, remarked: "The primary object of the park [is] as a rural resort where the people of all classes, coming from the glare and glitter, and turmoil of the city, might find relief for the mind, and physical recreation."

Construction of the park began in 1866, although planning by the city's commissioners had been initiated as early as 1859, when an act was passed authorizing the selection and location of park grounds. The outbreak of the Civil War in 1861 delayed any further work until 1865. Calvert Vaux, later to be joined by Olmsted, was appointed. Their plan, based on the popular "ash-garden" mode, called for three very distinct regions: a large open meadow, a hilly wooded area planted with an extensive variety of native and exotic plants and trees, and a vast lake. A traffic circulation system like that used in Central Park artfully segregated vehicles, pedestrians, and equestrian traffic: the flow of roads and paths connected these regions without disturbing the natural scenery.

In addition to the park's natural landscape, Olmsted and Vaux designed a number of formal spaces, including the Concert Grove, now referred to as the Flower Garden, and the great Grand Army Plaza, renamed the Grand Army Plaza, at the main entrance to the park. Dominating the plaza is the monumental Neoclassical Soldiers' and Sailors' Memorial Arch; built in 1889–92 by John L. Duncan (who was also responsible for Grant's Tomb on Riverside Drive), it is dedicated to the men who fought in the Union forces during the Civil War.

Olmsted and Vaux felt that any buildings within the park should be subordinated to the natural setting. Many structures built in the nineteenth century were—they provided rustic architecture blending with the rural environment. A number of structures dating from the early twentieth century, however, were products of a renewed interest in classicism and tend to dominate the landscape. The Boathouse, designed by Helmle & Huberty and completed in 1904, is a graceful terra-cotta building recalling Sansovino's magnificent (and very urban) library in Venice. The firm of McKim, Mead & White designed the Grecian Shelter, which was completed in 1905. Like the Boathouse, it is a masterpiece of Neoclassical inspiration. The flowing rhythm of twenty-eight Corinthian columns, topped by a balustraded terra-cotta entablature, evokes associations of the Greek temple and the grandeur of classical antiquity.

There are two historic residential buildings located in the park. The Lefferts Homestead, built in 1771 and 1783 (architect unknown) and moved down Flatbush Avenue to Prospect Park in 1868, is a charming Dutch Colonial farmhouse with a low-pitched roof, arched dormer windows, and a colonnaded porch. The Litchfield Villa, already contained within the precincts of the park, was completed in 1856 after a design by Alexander Jackson Davis. It is one of the few extant imitations of a romantic Italian villa, with its irregular towers, arched doorways and windows, and balustrades.

From its beginning, Prospect Park has been the prime recreational site of Brooklyn and its most notable green space. Enjoyed by millions of city residents and visitors each year, the park continues to provide a much-needed respite from the brick and concrete of the urban landscape.

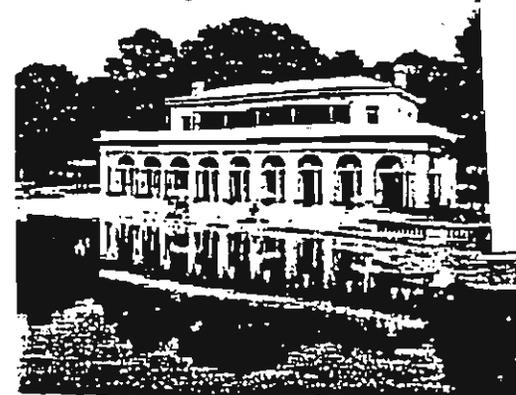


Litchfield Villa

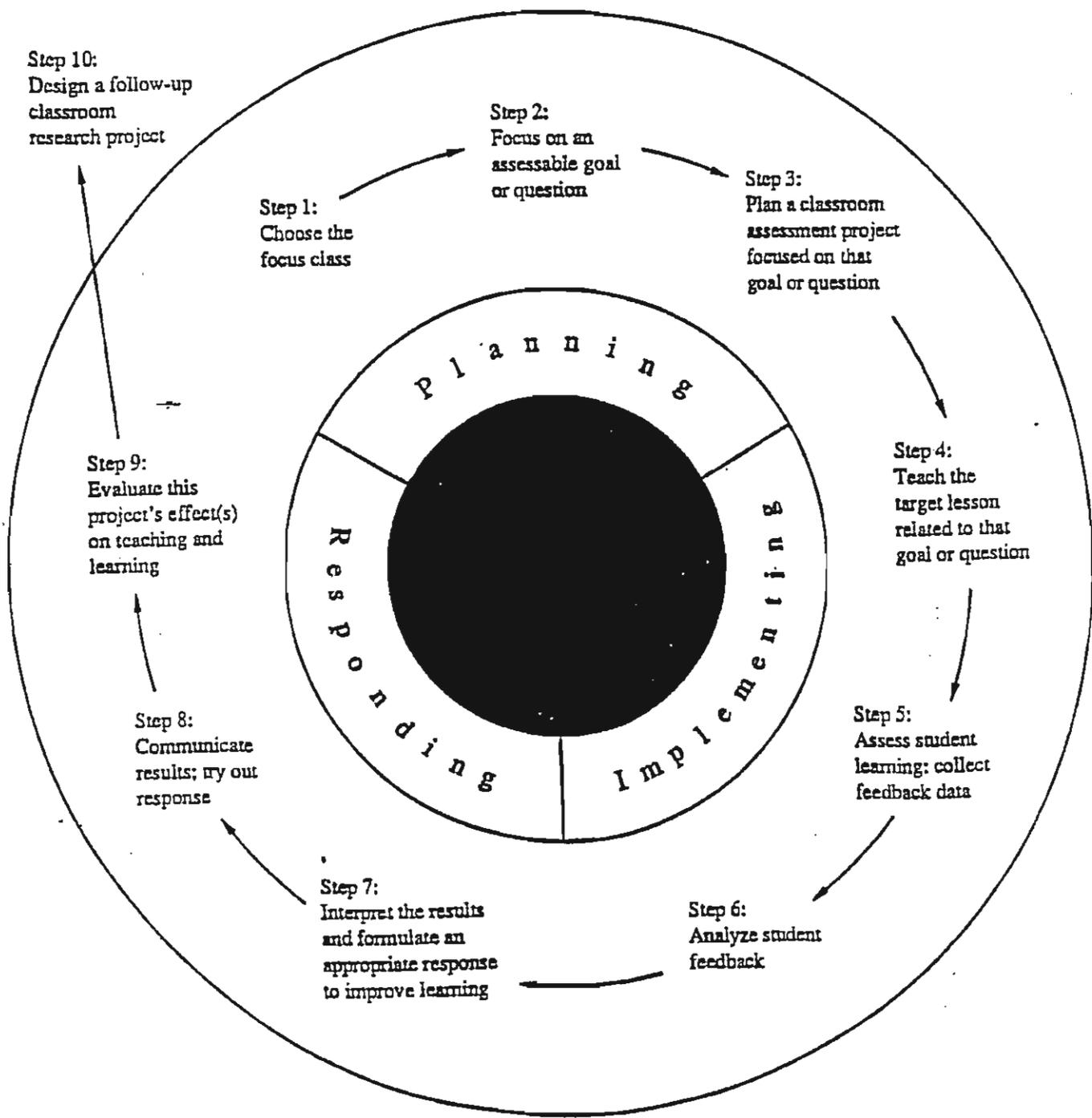


Grecian Shelter

*Perry Taylor*



Boathouse





TEACHER HANDOUTS 9/91





**New Jersey Institute of Technology**  
*A Public*  
*Research University*

## **SUMMER INTERNSHIP PROJECT OVERVIEW OF TEACHER INVOLVEMENT**

### **Purpose of the Teacher Involvement**

The Summer Internship program is designed to allow the teachers to experience the onsite aspect of an actual restoration project. This on-site experience can then be used during the academic year to support the preservation-enriched academic classroom education. It is anticipated that the academic course exercises will reflect the needs of restoration education for the following items:

- Primary and secondary research methodologies
- Proper documentation
- Critical thinking processed and analytical skills
- Scientific analysis
- Historic analysis
- Artistic appreciation
- Prescriptive writing skills
- Communication skills including vocabulary

### **Summer Project Products**

The summer project this year is to produce one set of lesson plans from each discipline that will consist of five lessons. The four teachers will collectively produce a total of twenty classroom exercises that will focus on the eight restoration objectives as itemized above and incorporate the summer experience of the Peristyle restoration.

### **Interdependence of the Summer and Academic Year Programs**

The cyclical framework of the preservation-enriched program uses the academic fall and spring semesters to develop the intellectual abilities and appreciation of the students in their selected field; and the summer "semester" to implement the hands-on practical field practice of preservation

The objective of preservation-enriched academic lessons and assignments during the academic year is the preparation of the intellectual and artistic appreciation of the students for the following summer internship. Each successive summer, the internship builds on and refines the prior summer and academic year's experience. The progressive goal is the continual improvement in the quality and level of preparation that the interns will have at the beginning of each summer in the manual and artistic skills that they individually possess in their selected area of concentration (stone, wood, clay, etc. ). At the end of the four-year curriculum the students will have received a Regents oriented high school education with a one-year internship gained by the collective eight month internship that they have earned by the summer internship experience.

### SUMMER INTERNSHIP SCHEDULE

- WEEK 1
- Teachers review outline materials and technical diagrams
  - Teachers to visit site and shop
  - Student introduction to site and shop
  - Teachers to brainstorm around table with NJIT how they would see this site opportunity becoming an exercise incorporating academic products
- WEEK 2
- Teachers to visit the work in progress and observe early student participation for later comparison on student progress
  - Students from this week onward work with the A. Ottavino Corporation at the Peristyle site or at the Ottavino Corporation shop. Visits to agencies and other resource institutions
  - Student video content defined
- WEEKS 3-7
- Teachers and students visits to the following institutions and agencies: the New York Public Library, Municipal Archives Prospect Park Alliance, New York Historical Society, Queen's Museum to study model of New York City
  - Visits to and comparison of three major NYC parks designed by Vaux and Olmsted: Central Park, Prospect Park, and Riverside Park
  - Student site instruction, participation, and on-going documentation
- WEEK 8-
- Teacher and student assessments
  - Lesson plan review
  - Recap
  - CABSR report

New Jersey Institute of Technology

*A Public  
Research University*

**Science Course Guidelines - Draft**  
**(For Kieran McGuire, Science Teacher, HSAB)**

**1. Earth Science**

1. Geology - Formation of Materials
  - A. Sandstone
  - B. Marble
  - C. Granite
  - D. Slate
  
2. Application to Building
  - A. Effects of Quarrying on durability of stone
  - B. Effects of Bedding on installation of stone into a building
  - C. Effects of different finishing methods and finishes on durability of stone
  
3. Effects of Environment on the ability of different stones
  - A. Acid Rain
  - B. Erosion
  - C. Freeze - thaw cycle
  - D. Evaporation/salt crystallization
  
4. Petrography

**II Chemistry**

1. Building Materials
  - A. Stone
  - B. Terra Cotta
  - C. Brick
  - D. Mortar
  - E. Concrete
  - F. Wood
  - G. Plaster
  - H. Metal
  - I. Plastics

2. Organic and Inorganic Materials
3. Effects of Weathering/Environment
  - A. Alteration to original chemistry through patination
  - B. Alteration to original chemistry through deterioration
    - (1) Causes
    - (b)Consequence
4. Chemistry in the Service of Conservation
  - A. Cleaning materials
  - B. Mortar Materials
  - C. Repair Materials
  - D. Replacement Materials
  - E. Adhesives
  - F. Consolidants

### III Physics

1. Properties of building Materials
2. Proper Application
  - A. Tensile strength
  - B. Flexural Strength
  - C. Compression
3. Causes of material failure
  - A. Expansion and contraction
  - B. Degradation and loss of strength
  - C. Improper applications
4. Consequences of improper application
  - A. Cracking
  - B. Spalling
  - C. Displacement

5. Design of Restoration Materials
  - A. Properties
  - B. ASTM Testing

#### IV Biology

1. Building Materials Affected
    - A. Organic
    - B. Inorganic
  2. Biodeterioration
    - A. Algae
    - B. Lichen
    - C. Microorganism
  3. By Products of Biodeterioration
  4. Microscopy
- 

Each of these courses would occur in a different high school year. Check with NYC Frameworks to see what year each subject would fall within Kate Ottavino has listed the courses as follows and thinks this sequence would be best.

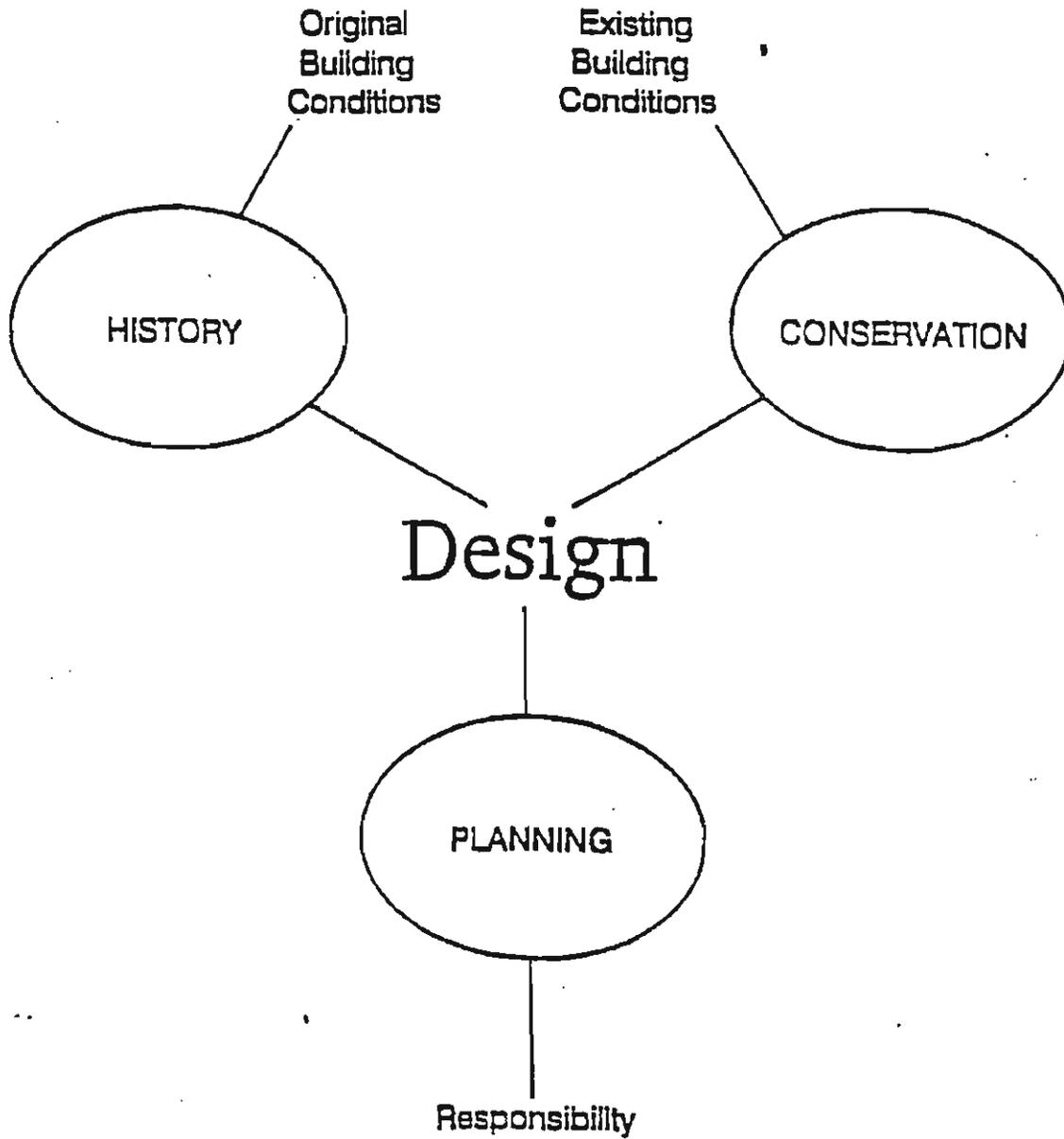
9<sup>th</sup> grade Earth Sciences

10<sup>th</sup> grade Chemistry

11<sup>th</sup> grade Physics

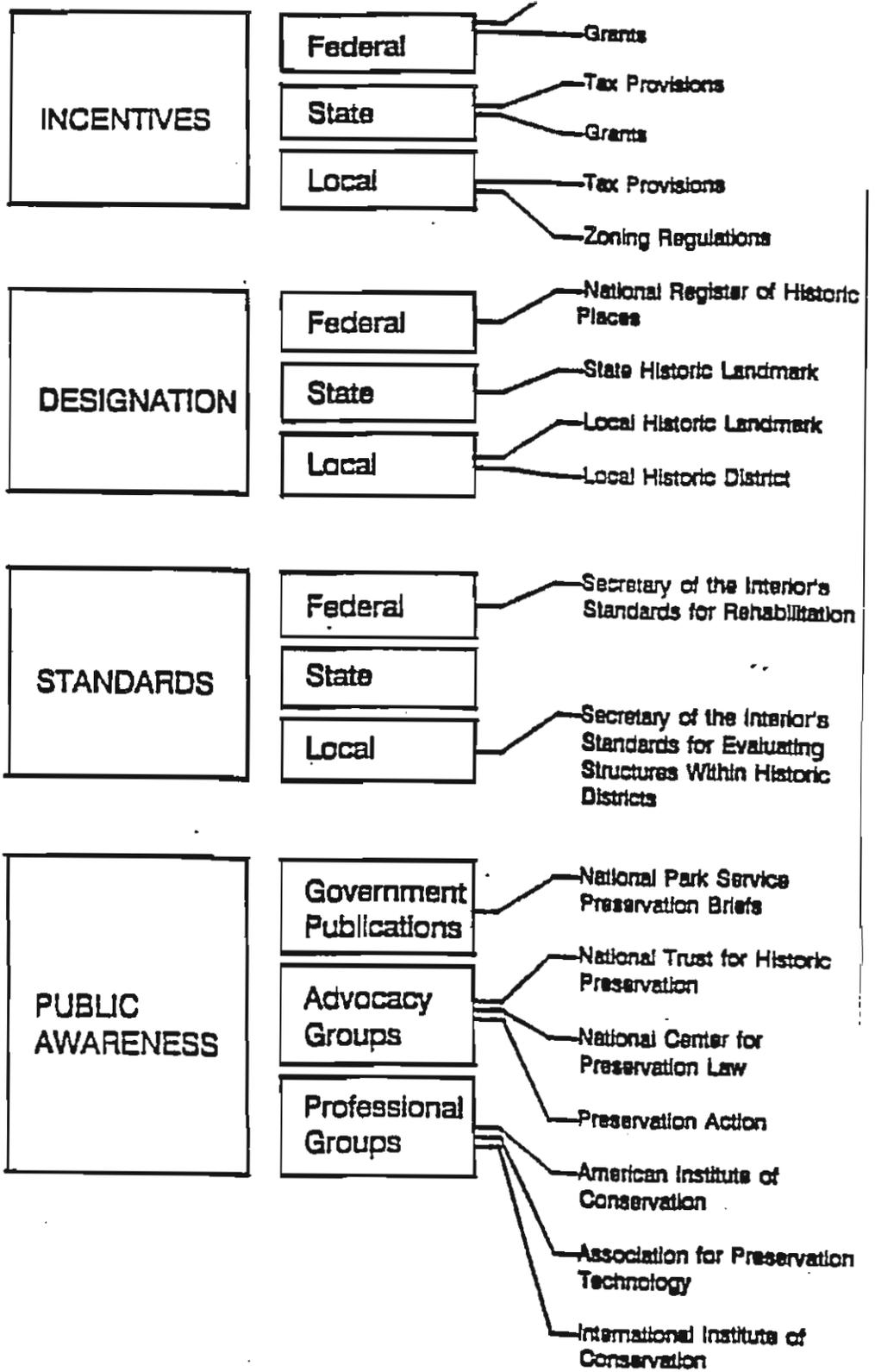
12<sup>th</sup> grade Biology

Could reverse - Biology may be subtler for buildings



# Technical Preservation: A Diagram

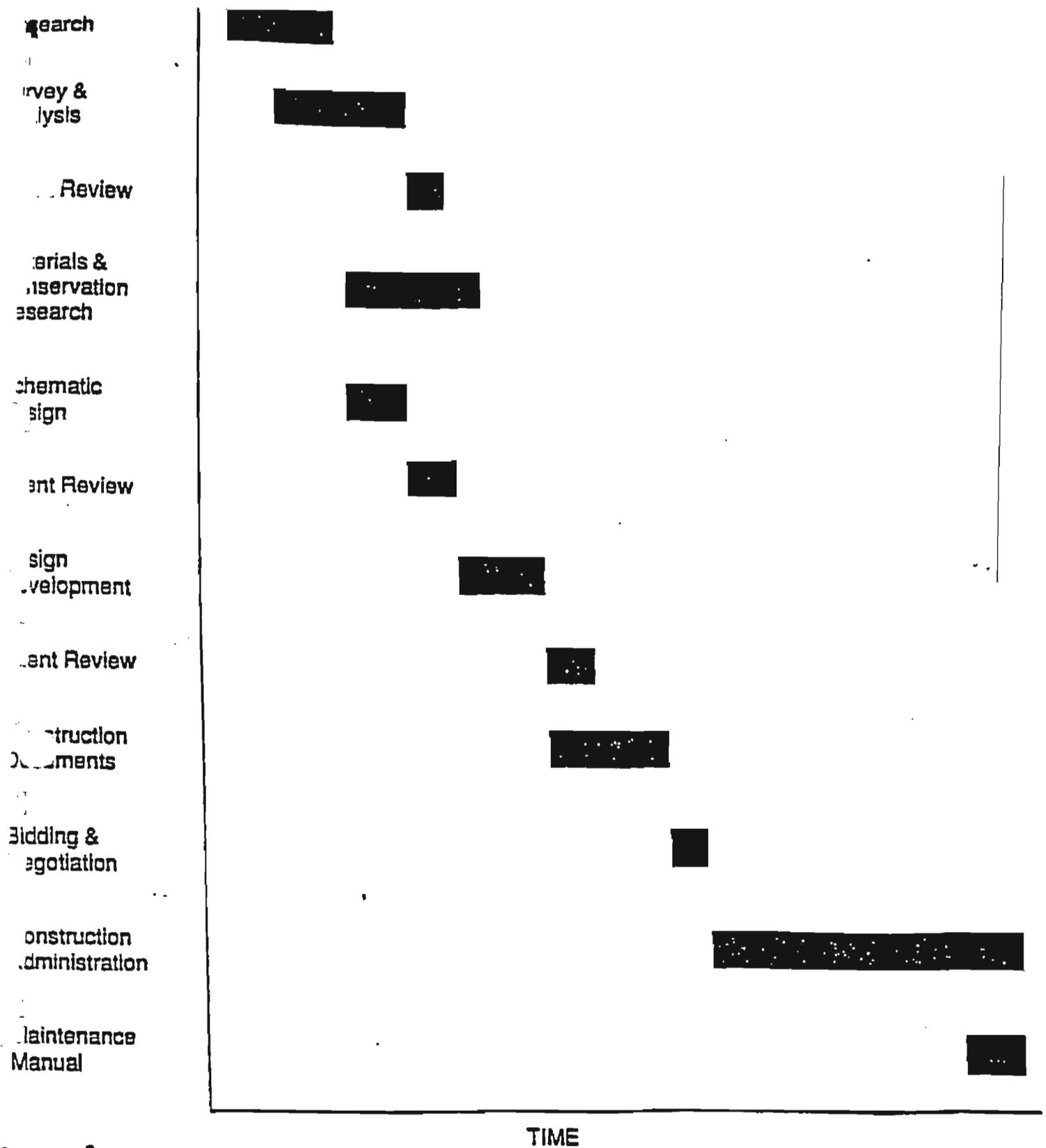
Planning



# Technical Preservation: A Diagram



CENTER FOR ARCHITECTURE AND BUILDING SCIENCE RESEARCH

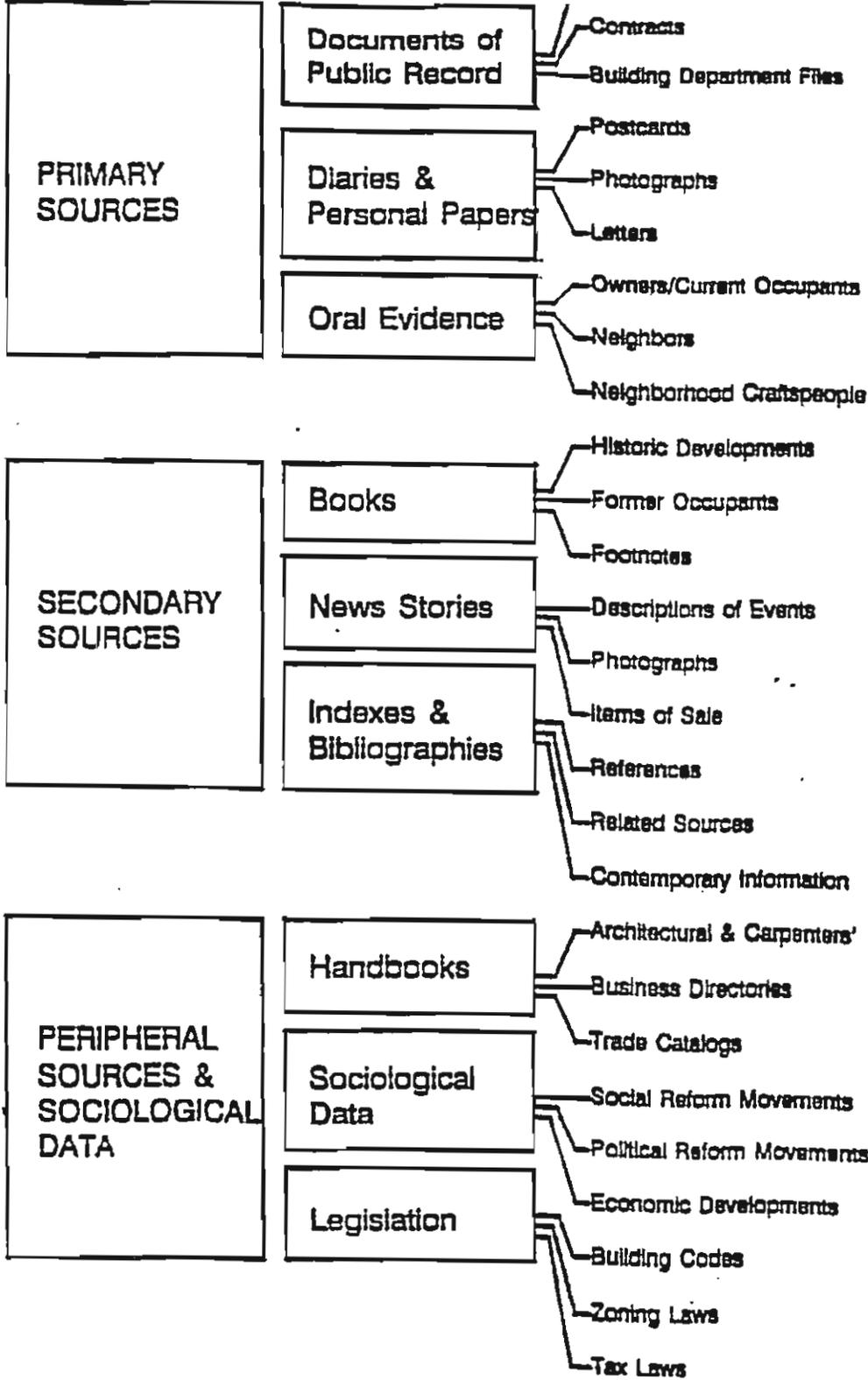


Design

# Technical Preservation: A Diagram

# History

Adapted from The Restoration Manual  
by M. Bullock, 1966.



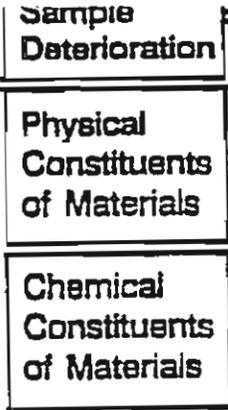
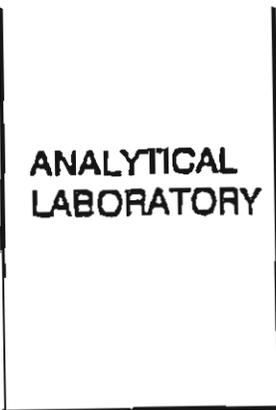
# Technical Preservation: A Diagram



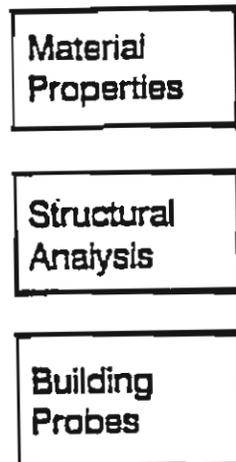
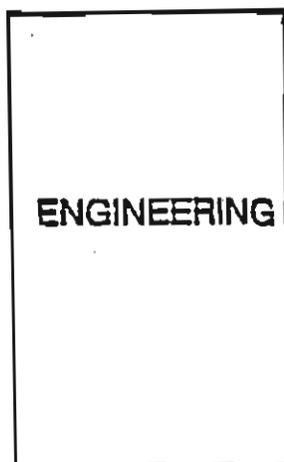
CENTER FOR ARCHITECTURE AND BUILDING SCIENCE RESEARCH

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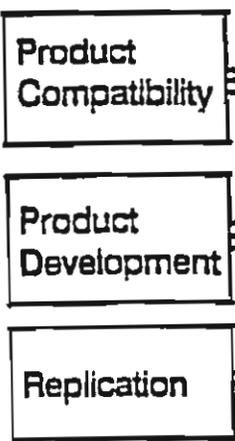
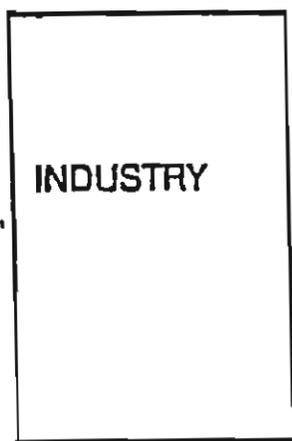
Conservation



- Embrittlement
- Porosity
- Permeability
- Petrography
- Ion Testing
- Scanning Electron Microscope
- X-Ray Diffraction

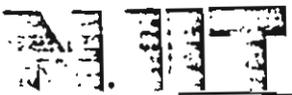


- Compressive Strength
- Freeze-Thaw Resistance
- Saturation Coefficient
- Crack Pattern
- Strain Relief Testing
- Monitoring Gauges
- Borosopes
- X-Ray Photography
- Metal Detectors



- Visual
- Physical
- Chemical
- Coatings
- Cleaners
- Anchors
- Metals
- Plastics
- Cementitious Materials

# Technical Preservation: A Diagram



4/9/98

Dear Kate Ottaviano:

My apologies to you for not getting the Questionnaire information to you earlier. I have been quite busy with school and trying to get myself into college.

Liz is also sorry for not returning your video on the Panders Fields project; I have not yet finished editing it because of the tremendous work needed to put together a video portfolio for college. I hope you don't mind, alas, if I use that clip for my portfolio and will see that I get it done and to my principal after the Easter vacation.

Again, Sorry for the delay.

Sincerely,

Frederick Overed

Times Square Business Improvement District  
Summer Internship Pilot Program  
The Restoration of:

The Father Francis Duffy Monument  
The George M. Cohan Monument  
The Flanders Field Memorial

Student Intern Questionnaire

1. What aspect of this summer's internship program did you find most enjoyable? What aspects did you find least enjoyable?

*in my case what I found most enjoyable was the actual working with the tools and stone. what I found least enjoyable was the writing and background studying of the monuments; that was Pretty Boring!*

2. During the course of the internship did you find that your vocabulary was increasing thereby better enabling you to describe the work that you were doing or researching?

*at the time I think it did. Cite some examples. But truthfully I don't remember that sorta subconscious like stuff.*

3. Along with an increased ability to describe your endeavors, did you find that you also perceived more about your surroundings and environment such as details on the sculptures, the architecture of the place the statuary was located, the condition of the environment surrounding the statuary? Cite some examples.

*Yes, I could feel color changes in the stone and metal and texture I noticed, too was better after we worked on it.*

4. Since this summer does Times Square as a place have more meaning for you than it did before and why? *Yes, because I always use to go by the statues and I would not have ever imagined that I would participate in cleaning them. Times Square has about more meaning for me now because I know I worked on those statues. (Now all we have to do is get the Birds to stay off!*
5. How would you compare the experiences of doing primary research (the documentation we found at the Art Commission) with that of doing secondary research (the research you did on the lives of the sculptors and at the New York Public Library)? *again that experience was kind of bring out treasure, but at least I know who's who and what's what!*
6. Did you find researching history in the context of a monument that you were working on to be more interesting than researching the same subject and were you not actually involved with the restoration of the monument?
- ?
7. Since your visits to the Art Commission at City Hall and the New York City Department of Parks and Recreation at the Arsenal, how do you feel about our City's public agencies? How does what the people in these agencies do seem more real to you? Do you have an increased sense that the government can have a positive effect on peoples lives? *I never got to go to these places.*

8. Having had no prior education in the subject of historic preservation and restoration, do you think that you were less ready, to appreciate your summer internship? Would the summers experience have been more valuable to you if you had studied before hand the lives and times of the people commemorated by the monuments we restored? If you first studied the geology, chemistry, and physical characteristics of the materials of which the monuments were made would the restoration means and methods - that we undertook have been more interesting to you?

*If I were someone who was studying this type of work it might have been a whole lot easier and I'd probably be able to do the work without any questions kept or problems.*

9. If you were in the eighth or ninth grade and you had the opportunity to elect to go to a High School for the Preservation Arts what would you want to know about the school before hand?

*what exactly I would be learning and why they would have such a school.*

10. How early in a person's education do you think they should be exposed in the classroom and/or on field trips to the architecture, monuments and physical city that surrounds them?

*If you wanted to keep there attention and interest it would be better to have alot of hands ~~on~~ experience with there surroundings.*

11. Based upon your internship experiences this summer do you have a better idea about how the city operates, how business operates, and how public art comes to be and is maintained? Is it worth all the effort?

Yes, it is worth it being that I am an artist I respect these sculptures and their work and it should be kept and maintained for many years to come. That how their memory ~~to~~ lives on even if the information is lost the stone and metal its self is a type of memorial to the subject.

12. As a result of your experiences this summer, do you feel that individuals can make a difference in the quality of life we experience in New York City? Yes, I still say we need

To do something about the Birds though! maybe some type of repellent to keep them away from the monuments.

13. What could have been done to make the experience this summer more interesting, more challenging or more valuable to you?

I think everything was Ok. I met alot of people made alot of friends that work in the field ..

(Probably don't remember me!) and I learned alot everything was fine I had fun!

New Jersey Institute of Technology

A Public  
Research University

July 2, 1998

**Sustainable Restoration Arts Training - Creating a High Schools for the Preservation Arts****Kate Burns Ottavino, Conservator  
Director of Preservation Technology**

The Concept for a High School for the Preservation Arts was developed by the author as part of a study by the World Monuments Fund (WMF) on Sustainable Urban Preservation- Developing a Model for New York. The Study was an outgrowth of a 1993 WMF symposium "Employment Strategies for the Restoration Arts: Craft Training in the Service of Historic Preservation." In the wake of the demise of training programs such as the Cathedral of St. John the Divine in New York City that had been heavily invested in with both time and money the study undertook to establish why such programs had failed and what would be needed to sustain restoration arts training on an ongoing basis. The study took as a premise the applicability of the environmental movement's theory of "sustainable development." The four "capital stocks" identified were a social capital, human capital, material capital, and natural capital. In brief, these capital are defined in the study as follows:

**Social Capital** - This is the "...intangible sense of social cohesion based around shared ethical values...By way of example, we could argue that ancient Athens, Rome in its glory or Florence during the Renaissance has a stock of social capital unparalleled in the western world. Yet obversely, if social capital cannot be preserved, its energy is dissipated in explosions and declines so rapidly that all hope is lost; communities become maimed, crippled and ruled by cynicism, despair, and violence."

**Human Capital**- this is the people of our cities. "One problem that continues to vex politicians and social workers responsible for addressing the problems of this nation's inner cities is unemployment, particularly among youth.... Job training requires a long-term investment, and for this reason, urban preservation projects can provide the context for job training and increase a community's stock of human capital.

**Material Capital**- "Nationwide studies show that development is consistently steady in historic districts in terms of work permit applications.... One reason that urban preservation can bring positive economic development is because it preserves material capital. This is most clearly seen in savings on energy and landfill costs, as well as the reduced need for materials demanded by wholly new construction... (savings) in electricity costs and natural gas costs.... (as well as) solid waste and the landfill space required to accommodate it...(and a reduction in the) burden on water and sewage infrastructure."

Natural Capital- "Urban preservation allows the built environment to remain and helps protect existing natural capital. Zoning plays an important role in the sustainability of a city.... Limits to neighborhood growth and the inclusion of greenways provide an impetus for human scale development that preserves wetlands, curbs automobile traffic, and does not overburden infrastructure."

Utilizing this framework of capital stock, we find a strong argument in favor of preservation arts training targeted at inner city youth. However, we are not the first to identify this need and illustrate its potency. A long time question though, was why if the need is so visible have attempts to satisfy it consistently failed? This is what we set about to answer in our study. When you look at the four capital stocks described above it becomes evident that a sustainable restoration arts training program will "...entail marshaling a diverse coalition of support to provide the necessary leadership, commitment, and financing." Reasons for the failure of artisan training programs in the past were many but it can be reduced to three consistent factors:

- Lack of financial resources
- Restoration arts training was not the primary mission of the institution sponsoring the program.
- Lack of social support systems for the participants

In response to these conditions we asked ourselves what has historically enabled artisans to be trained and what, if anything, is peculiar to being trained as a restoration artisan. Our answers to these questions identified the age of fourteen to be the age at which many artisans historically became destined to pursue their craft. This system can be seen in the guild tradition and in the union tradition of a father to son pursuit of their trade beginning with the son's Saturday visits to the job site and gradually evolving into their participation in the union's apprenticeship program. However, what makes a restoration artisan different from a building trades craftsman? Well, for one thing they are working many times with a craft tradition of a former decade and even century. Union trades typically are most skilled in current building skills. For example, stone carving in situ would be atypical for contemporary building methods. Most contemporary buildings are panel wall high rise construction prefabricated at a factory, shipped and bolted to the wall.

Construction technology is only one factor in the difference between traditional building trade apprenticeships and restoration arts training. A second difference is the extensive academic component required to prepare one's self to be a restoration artisan. An integrated knowledge of history, science, math, art, English and vocabulary are fundamental to a preservation ethic. The appreciation of authenticity is in many ways learned. Why we develop new artisan technologies to sustain old balusters through repairs rather than proceeding immediately to create new balusters requires academic training specific to the preservation arts albeit applicable to creating durable new designs.

The synthesis of the academic and traditional system of crafts were two components that, when combined with the social support system needed to reach inner city youth, led us to identify the high school level of training as the most appropriate level at which to begin the restoration arts training process. Further, there was precedent for this type of institutionalized training in traditional vocational high schools, although they are themselves now in much need of revitalization. It is this precedent that led us to seek a partnership with the New York City Board of Education. However, the sustainability of a High School for the Preservation Arts does not rest solely upon the New York City Board of Education. Its sustainability relies on a broad consistency of support, that diverse coalition of support, to provide the necessary leadership, commitment, and financing. This coalition of support consists of political leaders, city government agencies, industry and not-for-profit preservation organizations. Each of these constituents provides a critical element in the Sustainable Preservation Arts Training equation.

We reached out to our political leaders and found a fellow visionary in New York City Council member Kenneth Fisher, a long time supporter of Historic Preservation, who undertook to introduce the idea of a High School for the Preservation Arts to the NYC Board of Education. City government design and construction agencies have been identified as internship opportunity providers through their curatorial responsibilities to preserve and maintain the cities buildings and parks. Industry has been identified as the preservation arts training resource as it is outfitted with the requisite personnel, artisans, tools, equipment and facilities needed to provide contextual training. And not-for-profit preservation organizations are being targeted for intern support including stipends and wages.

Working within this broad arena of support the Center continues to develop the parameters with in which to design a high school curriculum for the Preservation Arts. These parameters include meeting the Board of Education's regent diploma requirements, identifying internship opportunities, defining the needs of industry in hosting internships, defining the city agency's role in providing for internships and designing a process whereby they can be incorporated into the curriculum and internship components with the support of the World Monument Fund and the NCPTT, industry, and not-for-profit organizations for financial support of interns.

### **Preservation Week at the High School for Arts and Business, Corona, Queens**

In May 1998, with the support of the NCPTT, we completed the first week of academic instruction applying a preservation base high school curriculum. It was a truly exciting experience for all who participated, the teachers, students, and guest speakers alike. Fran Gale from the NCPTT, was one of the many nationally prominent preservationists who spoke to the students. Ms. Gale was exceptional in conveying her enthusiasm for the subject and in providing them with her expertise. The students visibly enjoyed the presentations by raising their hands to ask many questions, listening eagerly and respectfully to the answers, and enjoying the repartee among the speakers. There was a healthy emphasis placed by the speakers on the career opportunities available and the

range of knowledge, skill and talent needed to fulfill them. The four teachers from the High School of Arts and Business who were selected by Principal Stephen Drakes, presented the formal preservation based curriculum in four of the High Schools' required subject areas including Art, English, History and Science. The creativity with which each of the teachers incorporated the concept of preservation into their subject area in combination with their talent for presentation shone new light through the prism of preservation. We were all touched personally and intellectually by the experience.

Prior to Preservation Week, and in preparation for the teachers selection, the Center presented the concept of a High School Curriculum designed specifically for the Preservation Arts to the entire teaching staff at the High School for Arts and Business, Corona Queens, New York (HSAB). The presentation included videos of the Restoration of Brooklyn Borough Hall and the Times Square Bid Monuments Conservation projects in progress as well as an overview of the contents of an integrated academic and hands-on preservation curriculum. Principal Stephen Drakes, himself an artist, felt that the opportunity to involve all of the teachers in the thinking behind Preservation Week would enable those who were most interested in the subject matter to volunteer and to participate. The voluntary aspect of the teachers' participation cannot be overvalued as it came upon their existing workload in a newly opened high school, under the direction of Board of Education Chief Executive for Schools Programs and Support Services, Dr. Peg Harrington. The overall teacher response was very receptive, but Bryan Serra put it most aptly when he suggested that preservation was a discipline in which each of the subject areas could be developed and through which the faculty of the HSAB could find a common focus. With the aptitude of the HSAB principal and faculty for the subject of historic preservation we were well on our way to developing a successful partnership in the creation of Preservation Week.

The Preservation Week consisted of a two-day intensive preservation overview for thirty-one ninth and tenth graders by leading local and national preservationists in the field of historic preservationists. The guest speaker presentations were interspersed during the day between the teacher taught preservation-enriched curriculum. This was followed up in June by a third day in which certificates of student participation were distributed and preservation assignment presentations were made by the students to their Principal, Stephen Drakes, teachers Lynda Aron (English); Bryan Serra (Art); Kevin Lawlor (History); Kieran McGuire (Science) and representatives of the Center. The curriculum as taught, consisted of eight class lectures (two per subject area) prepared by the teachers as part of a three day period of intensive teacher development sessions (TDS) led by the Center during March and April. To assist in focusing the curriculum development a pre-selected preservation portfolio internship project site (PIIP), the Prospect Park Peristyle, Brooklyn, New York, designed by Stanford White in 1904 in the classical style, was presented to the teachers by the Center. Within the context of this site, literature on the history of the period and the life of Stanford White, illustrated texts on classical architectural vocabulary, conservation science texts focusing on the materials of the Peristyle including terra cotta and stone were compiled by the Center and distributed to the teachers. In addition, the Center presented the Prospect Park Alliance's design documents for the restoration of the Peristyle to familiarize the teachers with the

structure, explain the process of preservation, and identify internship opportunities for the students.

Taking this material as our point of departure, our first TDS discussion was generated by the teachers in which they revealed what they each found relevant about the subject of historic preservation to themselves. In turn, the concept of integrating the subjects of English, Art, History, and Science became more intriguing as the teachers shared examples, in brainstorming fashion, of how the subject could be incorporated into their classroom. After this initial TDS, which also served as a getting to know one another session, the teachers collaborated during the following week in developing an outline of five classes each that would be taught during "Preservation Week".

In our second TDS we reviewed and critiqued the teachers' outlines helping them to build on the cross-linking of disciplines that they had already begun. What became clear however, was that the subject of the Peristyle was really a vehicle for linking the four subjects. Really what had integrated the four disciplines was the time period under exploration. Key to the process of designing academic curriculum relevant to the preservation process is focusing on specific time periods thus enabling teachers developing the academic component of the high school curriculum to employ a wide range of literature, history subjects, building/object types, materials, and technology in the design of their classroom lectures. A positive consequence of this approach to curriculum design, from the artisan development component of a preservation high school's mission, is that it broadens the range of projects that can be subject sites for internship training. Focusing on specific time periods also enables teachers to satisfy the broader educational parameters measured by standardized testing while still maintaining a preservation focus.

Pursuant to the second TDS, the faculty of the HSAB selectively applied the subject of the Peristyle to illustrate form, structure, and meaning in English, Art, History and Science. Ms. Aron selected the poem, "Patterns" by Amy Lowell to generate student discussions on form and structure as methods of social control and the resultant impact that has on our private lives. Mr. Serra took the classical form of the architecture of the Peristyle and showed the students how these forms have evolved today and are used as graphic logos. Mr. Lawlor used his family home of several generations to create group exercises in dating buildings from photographic clues, introducing the subject of memory to develop a sense of personal history, and to demonstrate how one determines if something should be restored. Mr. McGuire used the materials of the Peristyle to generate a discussion on paint removal from terra cotta.

At our third TDS, we reviewed student selection criteria, scheduling of the students to enable them to participate, the in class rewards of participation for the students, how students would be selected for the summer internship and the preservation assignment. This session was in some ways the most important as it provided an opportunity for the teachers to discuss the students in a fresh context. How students performed in each of the class areas became reasons why or why not to have some students participate. It was exciting to be a part of a teacher championing a particular student who was perhaps not

stellar in other contexts. The Center was given the opportunity at this time to place certain parameters around the internship selection process that encouraged the selection of students not necessarily on past performance but on their potential. At this time the role of sustainability in the overall goals of the High School for the Preservation Arts model became most evident. Students who did not appear regularly in class or on time were not eliminated from preservation week if the teachers felt that they would find the subject matter stimulating. It is a goal of the internship process to inculcate the values of the working world into students by involving them in interesting projects with dedicated people. These are values that can only be appreciated by experience, experience gained by being a part of the industry in its functioning context. The teachers appreciated and were very receptive to this opportunity for their students.

Preservation Week in May 1998 was conducted as a prelude to the Center's second Preservation Portfolio Internship Project, PPIP '98. The intention of the spring semester's Preservation Week was to introduce the academic subject matter of preservation to students in the classroom in order to prepare them for the summer's "hands-on" internship. The students were informed that three students would be selected from the program based upon their classroom participation, assignment performance and interest in the subject matter to work with the host artisan sponsor, A. Ottavino Corporation, on the restoration of the Peristyle. Six of the students prepared written and oral reports on a class assignment designed by the teachers and edited by the Center. The assignment, which integrated the four subject areas of English, Art, History, and Science was "You have been given a million dollars to restore a building. Pick a building and tell us why it is worth restoring, why it needs to be restored, and how you would spend the money to restore it." The results were excellent reports on a quite comprehensive range of urban structure types including the 1964 World's Fair Globe, Yankee Stadium, the Empire State Building, Queens Boulevard, The Brooklyn Bridge, and one student's own apartment building. To prepare their reports the school librarian reported that the students had come individually during their lunch periods to research their structures. Students were selected based upon the quality of their reports compared to the others presented, their stated desire to participate, and their availability to participate.

A very important aspect of the Preservation Week experience is the ability to follow up the classroom experiences of the four teachers who undertook Preservation Week with participation in a preservation project in progress. The four teachers will be brought on site, over the course of eight weeks, to study and take part in the restoration internship process. The focus of the teacher development sessions in the field will be to learn how to design academic curriculum that integrates the student's site experiences with their classroom learning. Similar to the Center conducted PPIP '97, the internship project will be academically enriched with visits to city agencies, commissions, archives, libraries, and historical societies to do primary and secondary research on the structures and to meet the officials and curators responsible for the city's collections. This will be a significant opportunity for the teachers to learn how to access and incorporate the city's resources into a preservation-based curriculum. The curriculum developed during PPIP '98 will be projected over a four-year period in each of the four subject areas studied during Preservation Week.

Preservation Week, sponsored by the NCPTT, will be available in report form. Our teacher development session format, content lesson plans, student projects, assessments, and a "how to" format for conducting a Preservation Week at your local high school, will be included. Our sincere thanks to the NCPTT for supporting this portion of the Center's design and development of High School Curriculum for the Preservation Arts for the New York City Board of Education.

7/2/98



WORLD MONUMENTS FUND

SUSTAINABLE URBAN PRESERVATION  
DEVELOPING A MODEL PROGRAM FOR NEW YORK

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THIS PROJECT HAS BEEN MADE POSSIBLE BY A GENEROUS GRANT FROM THE ROCKEFELLER BROTHERS FUND.

Instead of remedial government programs that target the most distasteful and politically embarrassing symptoms of mega-city crisis, we may be ready now to consider much broader-based experiments in urban preservation and sustainable development.

### A MODEL FOR JUSTIFYING SUSTAINABLE URBAN PRESERVATION

One way to begin to make urban preservation relevant in the context of sustainable development is to analyze the impact that urban preservation would have compared with new building and development. Which option proves to be the sustainable one? Which option allows us to “meet the needs of the present without compromising the ability of future generations to meet their own needs”?

Let us examine here the impact of these two options on the social, human, material, and natural capital of New York City. Which creates greater economic savings? Which brings with it greater additional benefits to enhance social cohesion? The following brief discussion is intended to provoke an interdisciplinary effort to reconceptualize our thinking, find new ways of looking at urban problems, spur dialogue, and build a new consensus.

#### *Social Capital*

The notion of “social capital” is the most abstract of the four capital stocks and the most difficult to quantify, yet perhaps the most important. If community members preserve a sense of identity connected to the place in which they live, they will be able to meet the constant challenges posed by mega-city pressures with a positive sense of possibility and pride in achievement.

This intangible sense of social cohesion based around shared ethical values is a capital stock of tremendous potency and volatility. Harnessed properly, it leads to sustainability and the highest achievements of civilized capacity. By way of example, we could argue that ancient Athens, Rome in its glory or Florence during the Renaissance had a stock of social capital unparalleled in the western world. Yet, obversely, if social capital cannot be preserved, its energy is dissipated in explosions and declines so rapid that all hope is lost; communities become maimed, crippled and ruled by cynicism, despair, and violence.

How much stock does New York City possess of social capital? Contradictory images and thoughts immediately come to mind, but if one poll is to be believed, overall the stock is quite substantial: only 7 percent of New York residents cite a sense of community as a problem. Inner city neighborhoods have traditionally been and will continue into the future as the first destination for new immigrant groups, who bring with them shared cultural and social values. The challenge becomes how to improve the quality of life and ensure social equity, a healthy environment and economic opportunity so that this capital is not drained.

Evidence shows that the benefits of historic preservation succeed in instilling civic pride and creating a social confidence, and so helps to preserve social capital. With urban preservation, for example, comes tourism and the material and psychological benefits of living in communities admired by visitors from afar. Similarly, studies in more than a dozen cities around the nation have shown that property values benefit from urban preservation. With preservation also comes an improved quality of life stemming from the strengthening of community

values. An involved 24-hour neighborhood, for example, reduces crime, vandalism and littering, and attracts new business.

By contrast, new building can have the opposite effect. For example, consider an inner city strip shopping center. It has to spend \$2 more per square foot than a comparable suburban shopping center for full-time security guard, increased lighting, and continuous cleaning. Total operating costs as a result rise by 15 percent.

On a larger scale, entire communities can be destroyed by new building precisely because the notion of the existence of a stock of social capital is not recognized. In 1994, there were plans afoot to demolish the 124 buildings of the Nehemiah Project in East New York. A *New York Newsday* editorial by Roberta Brandes Gratz, author of *The Living City* and president of the Eldridge Street Project in New York, criticized the proposed demolition and made an appeal to preserve the social capital that would otherwise be wasted:

*"Housing alone does not make a neighborhood and it is a moral outrage to throw out people with long social ties to the community, people who struggled against drugs and crime, long-term owners who could not get mortgages during the hard times, who were red-lined out of loans to improve the area but who stayed and worked hard against deterioration, always with the faith that things would get better. Many poor people here with what are traditionally defined as middle-class values are being shoved out to make way for moderate-income homeowners. This displacement is rationalized by pretending that poor people can't con-*

*tribute to neighborhood stability, and want to leave anyway at the first opportunity.*

*The traditional New York neighborhood model is being emulated everywhere except in our own backyard. Can't we learn from ourselves?"*

### *Human Capital*

One problem that continues to vex politicians and social workers responsible for addressing the problems of this nation's inner cities is unemployment, particularly among youth. Job programs historically have in general not proved successful. For example, many federally funded federal job programs spend between \$2000 to \$4000 per person and last two to three months. As one youth skills training leader commented once, "With \$2000 you can just get them dressed up and sent to a job interview." Job training requires a long term investment, and for this reason, urban preservation projects can provide the context for job training and increase a community's stock of human capital.

According to the New York City Parks Department (Rabinowitz, 1994), there are no current programs in the New York City university art school system for preservation and art conservation. Few people are trained in the artisan skills of stone-cutting and mold-making. In short, many restoration architects are forced to specify replacement materials and techniques, or abandon plans for preservation because "you can't get that kind of work anymore."

Studies have shown that job creation is stronger in preservation work than in new construction, as preservation work is more labor intensive. Further, the Lower Manhattan Task Force calculated the bene-

fits of jobs retained through its preservation efforts. Experts calculated that 3000 jobs will be retained by the Lower Manhattan preservation effort with each job having a net present value of \$115,367. In addition, preservation creates five more construction jobs and three more permanent jobs than new construction for every \$1 million invested. (The City of New York, Lower Manhattan Task Force, 1994)

The principles of social cost accounting can be used to calculate the benefit of training one craftsman. Assume a 19-year-old unemployed youth living in public housing and receiving approximately \$7,000 in total public assistance. He enters a preservation craftsman skills training program at \$10 per hour. Upon completion of the program, he becomes an apprentice at \$25,000 annual salary with benefits. Using actuarial computations, the societal income for one trained craftsman turns out to be \$397,089.

These kinds of facts argue strongly in favor of a craftsman training program targeting disadvantaged minority youth and workers in need of skills retraining, as an adjunct of sustainable preservation programs. (See essay, following). Programs of this sort would entail marshalling a diverse coalition of support to provide the necessary leadership, commitment, and financing: business, both large and small; community development groups, local government, educational institutions, and unions. Necessary components include comprehensive social service support, ties to formal educational institutions and community groups, and a sympathetic and active apprenticeship program.

While easily described in the abstract, such programs need to be more fully articulated and brokered through the maze of city pol-

itics and bureaucracy and supported by private enterprise. Just as there is an unused resource in the heritage of New York City, so there is a needy base of human capital in the city that could be strengthened through training by and service to programs of sustainable urban preservation.

### *Material Capital*

Nationwide studies show that development is consistently steady in historic districts in terms of work permit applications; and in Denver's historic preservation area, 114 new businesses were created with 450 new jobs despite a severe recession.

One reason that urban preservation can bring positive economic development is because it preserves material capital. This is most clearly seen in savings on energy and landfill costs, as well as the reduced need for materials demanded by wholly new construction.

The City of New York Lower Manhattan Task Force analyzed energy cost savings, and was able to justify the following incentive: if a building owner improved his building at least 20 percent of the current assess value, the city could offer a 30 percent reduction in electricity costs and 20 percent of natural gas costs over 12 years.

Landfill space is quickly running out in New York City, requiring a major solid waste management system transformation. Studies during the late 1980s found that construction waste accounted for 30 percent to 50 percent of the solid waste in urban landfills, and that rehabilitation generates approximately 67 percent less solid waste than new construction.

Urban preservation can achieve substantial savings for the municipal solid waste man-

agement budget as well. If 30 percent of new construction is replaced by rehabilitation, the generation of more than 417,000 tons of waste will be avoided, saving the city more than \$30 million.

Preservation efforts—as distinct from rehabilitation—might generate even less solid waste and require even less in the way of new materials and energy consumption.

### *Natural Capital*

Urban preservation allows the built environment to remain and helps protect existing natural capital. Zoning plays an important role in the sustainability of a city. Zoning incentives that do not favor the preservation of the city built environment spur demolition and the sprawl of new development. Limits to neighborhood growth and the inclusion of greenways provide an impetus for human scale development that preserves wet lands, curbs automobile traffic, and does not overburden infrastructure.

Furthermore, research conducted over the last twenty years shows that rehabilitation work typically puts less of a burden on water and sewage infrastructure than new development. This translates into a cleaner environment while simultaneously providing open space for inhabitants. It is important to note that these factors also strongly influence perceptions of regional competitiveness.

## CONCLUSION

Most supporters of sustainable development have no background in historic preservation but nevertheless are motivated to create environmentally compatible and more livable communities. Historic preservationists are seeking to preserve urban heritage. The challenge lies in seeing the cogent intersection of both movements. Urban preservation can become a catalyst for crafting a sustainable future from the nonrenewable resource of urban heritage. Environmental conservation together with strong social-equity arguments makes a cogent combination through which to enlarge the constituency for making a new kind of sustainable urban investment.

In 1995, following the completion of this study, Kate Burns Ottavino developed a proposal for a restoration arts vocational training curriculum and sought an appropriate educational partner. She presented her ideas to Ezra Ehrenkrantz, Chairman of the Center for Architecture and Building Science Research at the New Jersey Institute of Technology (NJIT), where she holds the position of Director of Preservation Technology. Ehrenkrantz thought that NJIT could develop a proposal for a high school curriculum for consideration by public high schools in New Jersey. The response was lukewarm—in New Jersey the schools are investing all their resources in programs that are computer oriented. While a few schools expressed an interest in using computers for documentation, the concept of a comprehensive program—which would involve hands-on work as well as state-of-the-art computer documentation—failed to attract them.

This proposal did receive an enthusiastic response, however, in New York City, where Ms. Ottavino contacted John Talmadge at Councilmember Fisher's office, who arranged immediately for a meeting with his boss, Mr. Fisher, who offered to assist in approaching the New York City Board of Education. William Thompson, President of the Board of Education was also very interested and arranged for Ms. Ottavino to meet Judy Rizzo, the Deputy Chancellor for Curriculum of the New York City Board of Education. That meeting was very timely: Ms. Rizzo and the Chancellor, Rudy Crew, had recently visited an NEH-funded vocational training project in Maryland and had been exploring comparable options for New York. Initially, discussion focused on developing a restoration arts program within an existing vocational high school. It soon became clear that the curriculum merited its own school. It was even proposed that a vacant classical building in Brooklyn be used to house it. Ms. Rizzo invited Ms. Ottavino to prepare a curriculum proposal for grades 6 through 12, which the Board of Education would submit to the NEH. Council member Fisher has pledged \$5,000 in

the seed funding to prepare the proposal and Ottavino is now engaged in securing the balance of the funds required, a total of \$15,000. If the program proceeds on schedule, a high school of restoration arts will open in fall 1998.

Another favorable development brought the World Monuments Fund in contact with the Mayor's Commission of Youth Employment Services (YES). In early 1997, Gloria Gilbert Stoga, YES coordinator, contacted WMF's president Bonnie Burnham about a nine-week contract for the repair and conservation of several sculptures owned by the New York City Department of Parks and Recreation. Burnham immediately referred Ms. Stoga to Ms. Ottavino, who submitted a proposal for a summer youth training program to restore the three monuments. The Times Square Business Improvement District (BID) agreed to fully fund the restoration of three monuments in the Times Square area: the George M. Cohan Monument and Father Francis Duffy Memorial in Duffy Square; and the Flanders Field Memorial in DeWitt Clinton Park. As part of the proposal, the BID also agreed to hire three students from the High School of Graphic Communication Arts who would learn the art of monument preservation under Ms. Ottavino's guidance and supervision. Jonathan Kuhn, historian and curator of monuments for the Department of Parks has been a key program advisor.

On May 12, 1997 the Art Commission of the City of New York formally approved the proposal. The nine-week program involves a broad overview of the restoration process as well as a hands-on experience. Artisans from A. Ottavino Corporation will do the hands-on restoration work (in their Ozone Park, N.Y. shop, apprentices do not actually carve until they have a minimum of one and a half years' experience). The program departs from apprenticeship training in that it will involve the students in the process of research and documentation. The latter is

# EPILOGUE

sistent with restoration training and provides a valuable exposure to the restoration field beyond its vocational aspects.

The program offers a valuable opportunity for exploring the objective of establishing a high school curriculum, as well as to interest and engage city political leaders and citizens in a concern for the city's architectural fabric and its economic power. More immediately, the Times Square project provides young people with an educational and practical employment experience in monument restoration.

# Curriculum Frameworks:

**KNOWLEDGE, SKILLS, AND ABILITIES**

## Grades Pre-K – 12



Board of Education of the City of New York

# Grades 9 — 12

## ENGLISH AS A SECOND LANGUAGE

### Beginning Level

Students will

- understand and carry out oral instructions and demonstrate active listening skills in order to make linguistically challenging situations more comprehensible. (Listening, Speaking)
- recognize sound/symbol relationships and demonstrate sound/intonation patterns necessary for effective communication. (Nature of Language)
- demonstrate an understanding of and an ability to use nonverbal, informal, and formal language appropriately, in order to engage in basic interpersonal communication for a variety of purposes. (Social Language)\*
- demonstrate an awareness of basic writing conventions and develop the ability to read and write both print and cursive representations. (Reading, Writing)
- acquire and use basic vocabulary and syntactical structures through the four skill areas of listening, speaking, reading, and writing. (Nature of Language)
- comprehend and respond to age/level-appropriate adapted and nonadapted reading materials and develop academic language related to content areas. (Reading, Academic Language)
- organize and develop a guided and/or original piece of writing, based on their experiences, ideas, and opinions. (Writing)
- apply critical thinking skills in order to compare and contrast, predict, sequence, and categorize. (Critical Thinking)
- experience a variety of assessment techniques and test formats used in schools in the United States, and develop appropriate strategies to achieve success. (Assessment)
- locate, retrieve, and present information from specified oral, visual, and written sources. (Research)
- become familiar with technological media to acquire linguistic and cultural knowledge of English. (Technology)
- maintain and reinforce a positive cultural identity and develop multicultural awareness, as well as recognize similarities and differences between their native culture and the culture of the United States. (Multicultural Understanding)
- demonstrate an understanding of the culture of the school and community, in order to access and utilize resources and services. (Social Responsibility)

\* An Example Objective and an Example Activity are provided for this Expectation. See page 140.

# Grades 9 — 12

## ENGLISH AS A SECOND LANGUAGE

### Intermediate Level

Students will

- read, view, listen, and respond to various adapted and nonadapted materials for personal satisfaction and academic success. (Listening, Reading)
- demonstrate active listening skills, in order to clarify and summarize instructions and information. (Listening, Speaking)
- initiate and/or sustain conversations on both familiar and unfamiliar topics. (Social Language, Survival Skills)
- expand and utilize their knowledge of vocabulary and syntax in a variety of personal and academic contexts. (Nature of Language)
- respond to, interpret, and apply information from various literary and content-based readings. (Reading, Critical Thinking)\*
- plan, organize, and produce fictional and nonfictional writing, using various conventions, formats, and writing process techniques. (Writing)
- develop and expand the use of cognitive/academic language used in literature and other content areas and demonstrate an ability to understand and use literal and figurative language in various oral and written modes. (Academic Language)
- monitor their language development through reflection and feedback from others. (Assessment)
- use various research sources to plan and produce a variety of oral and written presentations. (Research)
- use technological media in order to demonstrate and enhance their linguistic and cultural knowledge. (Technology)
- enhance their understanding of a variety of cultural perspectives through the use of print and nonprint materials. (Multicultural Understanding)
- demonstrate an understanding of local government, in order to exercise their rights and responsibilities. (Social Responsibility)
- appreciate and integrate aspects of their native culture and of the culture of the United States, based on beliefs, values, and needs. (Social Responsibility)

\* An Example Objective and an Example Activity are provided for this Expectation. See page 141.

# Grades 9 — 12

## ENGLISH AS A SECOND LANGUAGE

### Advanced Level

Students will

- sustain understanding over extended periods of oral discourse on a variety of familiar and unfamiliar topics with both native and non-native speakers. (Listening)
- initiate, sustain, and bring to closure a conversation appropriate for a wide range of circumstances and/or communicative tasks. (Listening, Speaking)
- demonstrate an ability to comprehend extended fictional and nonfictional text with greater facility in class, as well as independently. (Reading)\*
- expand critical reading and thinking skills, in order to analyze and evaluate literature and other content-based materials, recognizing culture, perspective, audience, content, and purpose. (Reading, Critical Thinking)
- demonstrate the ability to write clearly organized and well-developed pieces of writing necessary to report, describe, support opinion, persuade, and hypothesize. (Writing)
- analyze their own writing performance, based on teacher and peer feedback and through the processes of revision and editing. (Writing)
- use and integrate cognitive/academic language in order to discuss and respond to issues, events, and ideas for a wide range of social and academic situations. (Academic Language)
- articulate goals and develop strategies to assess their ability to comprehend and communicate information in a variety of social and academic situations. (Assessment)
- organize, paraphrase, interpret, and document data for a research project. (Research)
- use technological media as a vehicle for accessing information, communicating effectively, and advancing the development of literacy skills. (Technology)
- share their ideas and experiences regarding cross-cultural and multicultural aspects of American cultures, their native cultures, and cultures from around the world. (Multicultural Understanding)
- recognize the value of bilingualism and biculturalism and utilize these resources in their interactions with other members of their own communities, as well as the larger society. (Bilingualism, Multicultural Understanding, Social Responsibility)

\* An Example Objective and an Example Activity are provided for this Expectation. See page 142.

# Grades 9 — 12

## ENGLISH AS A SECOND LANGUAGE

### Transitional Level

Students will

- communicate effectively in a variety of settings, demonstrating fluency and understanding; utilizing formal and informal language, as well as idiomatic and regional expressions; and recognizing audience, context, and purpose. (Listening, Speaking)
- demonstrate an understanding of culturally implied meanings that transcend the surface of oral and/or written text. (Listening, Reading)
- analyze, critique, and formulate judgments about literary and content readings. (Reading, Academic Language)
- use the elements of the writing process to write effectively for a variety of audiences, on given personal, abstract, and/or investigative topics. (Writing)
- utilize internalized strategies to achieve academic success and to continue to grow in their knowledge and appreciation of the English language. (Assessment)
- enhance their knowledge of technological media and explore new technologies, in order to express and communicate ideas and opinions on various topics. (Technology)
- analyze, synthesize, and evaluate information from a wide range of research sources, in order to explore interests and issues relevant to their personal and academic lives. (Research)
- use their bilingualism and biculturalism, in order to participate in and make positive contributions to American society. (Social Responsibility)\*

\* An Example Objective and an Example Activity are provided for this Expectation. See page 143.

# Grades 9 — 12

## ENGLISH AS A SECOND LANGUAGE

Beginning Level

|                                                                                                                                                                                                                                                        |                                                                                                                                                                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>EXPECTATION</b><br>Students will demonstrate an understanding of and an ability to use nonverbal, informal, and formal language appropriately, in order to engage in basic interpersonal communication for a variety of purposes. (Social Language) |                                                                                                                                                                           |
| <b>Example Objective</b><br>Students will be able to ask and answer questions of their classmates.                                                                                                                                                     | <b>Example Activity</b><br>Each student finds out information about a classmate's family. Students write down questions, interview a classmate, and record the responses. |

# Grades 9 — 12

## ENGLISH AS A SECOND LANGUAGE

Intermediate Level

### EXPECTATION

Students will respond to, interpret, and apply information from various literary and content-based readings. (Reading, Critical Thinking)

### Example Objective

Students will reflect on their personal experiences to interpret the meaning of a selection from *The House on Mango Street* by Sandra Cisneros.

### Example Activity

Students consider the following question: "What do you think this reading selection will be about?" They respond in writing and prepare to share their ideas with the class. They read the entire selection and answer the following two questions: "How did you feel as you read the selection?" "What words and/or images impressed you the most and why?" Each student writes his/her responses and shares them with a classmate.

# Grades 9 — 12

## ENGLISH AS A SECOND LANGUAGE

Advanced Level

|                                                                                                                                                                                                      |                                                                                                                                                                                                                                                    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>EXPECTATION</b><br>Students will demonstrate an ability to comprehend extended fictional and nonfictional text with greater facility in class, as well as independently. (Reading)                |                                                                                                                                                                                                                                                    |
| <b>Example Objective</b><br>Students will be able to assume roles of characters in a story they have read and express the thoughts and opinions of the characters at different points in the future. | <b>Example Activity</b><br>Students have read "A Small Good Thing" by Raymond Carver. Now, working in groups, they plan, write, and perform a continuation of the story. (Each group is given a different situation at a different point in time.) |

# Grades 9 — 12

## ENGLISH AS A SECOND LANGUAGE

### Transitional Level

#### EXPECTATION

Students will use their bilingualism and biculturalism, in order to participate in and make positive contributions to American society. (Social Responsibility)

#### *Example Objective*

Students will be able to deliver an oral presentation to bilingual students who are about to enter monolingual English classes.

#### *Example Activity*

Students plan a presentation in which they describe the differences between monolingual and bilingual classes, especially in terms of language and culture, to a class of bilingual students who are about to enter monolingual English classes. They recommend strategies they have found to be effective in dealing with such difficulties. They rehearse with their teacher and deliver their presentations.

# Grade 10

## GLOBAL STUDIES

## EASTERN AND WESTERN EUROPE AND THE FORMER SOVIET UNION

Students will

- draw conclusions about how events, ideas, and people in Africa, South and Southeast Asia, East Asia, Latin America and the Caribbean, and the Middle East have influenced events, ideas, and people in Eastern and Western Europe and the former Soviet Union.
- analyze and interpret geography-related data to hypothesize, make predictions, and draw conclusions about the impact of geography on the development of Eastern and Western Europe and the former Soviet Union.
- demonstrate an understanding of the major events that shaped present conditions in the pre-nation-state histories of Eastern and Western Europe and the former Soviet Union.
- examine the significant political, economic, and social changes, from the advent of nationalist movements to the development of modern nation-states in Eastern and Western Europe and the former Soviet Union, .
- examine the challenges and successes in the nation-building experiences of countries in Eastern and Western Europe and the former Soviet Union.
- demonstrate an understanding of economic systems and decision-making processes as they relate to the development of national economies in Eastern and Western Europe and the former Soviet Union.
- analyze the international relations and foreign-policy decision-making processes in Eastern and Western Europe and the former Soviet Union.\*
- demonstrate an understanding of the evolution of democratic principles and the continuing struggle for human rights throughout the world, and take personal and collective responsibility for supporting democratic ideals and human rights.
- demonstrate an understanding that groups of people in Eastern and Western Europe and the former Soviet Union view ideas and events from multiple perspectives.
- explain how changing technology influences the socioeconomic development of Eastern and Western Europe and the former Soviet Union.

*(Continued on the following page)*

- understand the causes and effects of cultural diffusion and political and economic interdependence on Eastern and Western Europe and the former Soviet Union.
- demonstrate the ability to investigate, analyze, and discuss issues of global concern, using knowledge acquired in their two-year study of regions around the world.

Example Objective and an Example Activity are provided for this Expectation. See page 199.

# Grade 10

## GLOBAL STUDIES

## EASTERN AND WESTERN EUROPE AND THE FORMER SOVIET UNION

### EXPECTATION

Students will analyze foreign relations and foreign-policy decision-making processes in Eastern and Western Europe and the former Soviet Union, as they relate to the global political system of nations.

### *Example Objective*

Students will trace the development toward economic unity in Europe.

### *Example Activity*

Students research the conflicting issues over admission into the European Union. Then students take a position and write letters from the perspectives of a French dairy farmer, a British stockbroker, a German shopkeeper, and a Norwegian fisherman.

# Grade 10

## CAREER DEVELOPMENT AND OCCUPATIONAL STUDIES

Students will

- demonstrate the implementation of a career plan, begin to acquire specific skills in a career area, and identify opportunities and options within this career area. (Career Awareness and Development)\*
- acquire increasingly specific and more complex technical skills and knowledge including hands-on experiences related to their chosen career areas, with options to modify this choice. (Technical Skills and Knowledge)
- demonstrate the ability to work collaboratively and cooperatively in setting and pursuing group goals and objectives. (Interpersonal Skills)
- demonstrate the ability to think creatively, independently, and logically in planning solutions to problems. (Thinking and Problem-Solving Skills)
- become aware of a variety of skills needed to deal with the demands of the workplace, and demonstrate management strategies to use and allocate personal resources in multiple life roles. (Personal Development and Resource Management)
- continue to master and apply complex terminology, skills, and concepts to communicate effectively within an industry, community, or across cultures. (Communications Skills)
- construct and apply a system, based on their individual abilities and career interests. (Systems Interaction)
- acquire increasingly specific technological skills in a selected area, and practice computer applications across subject areas. (Computer Literacy)

\* An Example Objective and an Example Activity are provided for this Expectation. See page 229.

# Grade 10

## CAREER DEVELOPMENT AND OCCUPATIONAL STUDIES

**EXPECTATION**

Students will demonstrate the implementation of a career plan, begin to acquire specific skills in a career area, and identify opportunities and options within this career area. (Career Awareness and Development)

***Example Objective***

Students will inventory their own skills, talents, interests, hobbies, and accomplishments and relate them to career possibilities and opportunities.

***Example Activity***

Students create a resumé as a component of a larger portfolio. The resumé must contain the proper contact information; a career goal statement or objective; employment history (if any); a summary of accomplishments; details of any projects worked on; and three references. In addition, students submit an address list of five employers in the selected field and/or a list of post-secondary schools or training facilities.

# Introduction

## PERFORMING ARTS: MUSIC, DRAMA, DANCE

The Curriculum Frameworks in the arts grow out of the commitment New York City has made that every student upon commencement will demonstrate both literacy and competence in the principles, processes, and techniques of the visual and performing arts. Consistent with the standards established by the *Report on Learning-Centered Curriculum and Assessment* issued by the New York State Education Department, the New York City Frameworks offer guidelines for translating arts learning into a core curriculum.

The Frameworks can be used to integrate curriculum instruction and assessment to encourage students to develop a greater range of talents at higher levels of performance.

An effective arts program is a broad-based, sequential curriculum taught by experts and certified professionals that provides students with ample opportunities to excel in:

- creating and performing the arts;
- refining their perceptions and creating new perceptions of the world in which they find themselves;
- recognizing and understanding the role the arts have played in various cultures and through various historical eras and, conversely, understanding and appreciating the role that culture and history have played in shaping the arts;
- acquiring the vocabulary, concepts, and criteria for understanding, interpreting, and analyzing art processes and artworks;
- responding to the aesthetic qualities of a variety of the arts, making sound judgments about the arts, and understanding the bases upon which those judgments rest.

Such a curriculum can and should be shaped to foster the student's initiative, discipline, and cooperation with others, as well as to nurture other developmental and affective growth. This can be done through instructional practices that permit students to participate frequently in a variety of individual and group activities; to engage actively in reflective and self-reflective processes that help them become aware of their own learning; and to express their ideas, thoughts, and feelings, not only through artistic modes of inquiry, but orally and in writing. Instruction must also be adapted to meet the needs of students with special needs, so that all students can participate with maximum benefit.

Artistic activities should, in turn, be part of an ongoing assessment that grows out of the curriculum and shapes instruction. Documenting students' work and

# Grade 10

## VISUAL ARTS

*Students will have the opportunity to take a 3- or 4-year sequence in a specific art area, culminating in a Regents Comprehensive Examination that would include portfolio.*

*Art areas of study include, but are not limited to: animation, archeological and forensic art, art history, arts management, computer design, conservation, curatorship, drawing, film and video production, graphic design, illustration, fashion design, industrial design, interior design, painting, photography, printmaking, restoration, sculpture, technical and medical illustration, textile design, theater and scenic design, and window display.*

Within a particular art sequence, students will

- comprehend, acquire, and demonstrate the skills and techniques related to producing artwork in the specific art area being studied. (Creating, Performing, and Participating in the Arts)
- participate in individual and group production and exhibition. (Creating, Performing, and Participating in the Arts)
- demonstrate the safe use of nontoxic art materials, techniques, equipment, and technology. (Creating, Performing, and Participating in the Arts)

Students will

- identify, list, and discuss the work of art-related professionals and career opportunities in the art area being studied (e.g., critics, art historians, aestheticians, and artists). (Knowing and Using Arts Materials and Resources)
- participate in the arts. (Knowing and Using Arts Materials and Resources)
- develop the necessary skills, knowledge, art experiences, and portfolio to compete successfully for admission to colleges and other art school programs. (Knowing and Using Arts Materials and Resources)
- observe work experiences, mentoring, internships, apprenticeships, and partnerships with businesses in the arts. (Knowing and Using Arts Materials and Resources)
- utilize museums, libraries, and other cultural institutions and organizations and use these experiences in the solution of visual problems. (Knowing and Using Arts Materials and Resources)

*(Continued on the following page)*

- understand that appreciation of the arts is fundamental to being an educated person. (Knowing and Using Arts Materials and Resources)

Students will

- use creative inquiry in the search for oral, written, and visual language methods to give form to their ideas. (Responding to and Analyzing Works of Art)
- analyze and interpret art as an expression and reflection of the social, cultural, economic, and political conditions of its times. (Responding to and Analyzing Works of Art)
- apply critical and creative thinking skills to demonstrate aesthetic knowledge and sensitivity to artwork. (Responding to and Analyzing Works of Art)\*

Students will

- compare and contrast works of art that embody diverse styles and genres that represent culture throughout the world. (Understanding the Cultural Dimensions and Contributions of the Arts)

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\* An Example Objective and an Example Activity are provided for this Expectation. See page 406.

# Grade 10

## VISUAL ARTS

### EXPECTATION

Students will apply critical and creative thinking skills to demonstrate aesthetic knowledge and sensitivity to artwork.  
(Responding to and Analyzing Works of Art)

#### *Example Objective*

Students will demonstrate knowledge of color as an expressive vehicle comparable to sound.

#### *Example Activities*

Students:

- based on studies of various artists (e.g., Romare Bearden, Stuart Davis, Vassily Kandinsky, Miriam Shapiro, and Piet Mondrian), create a non-objective color composition influenced by the music/lyrics of their favorite composer or musician. The artwork is a color orchestration of the piece they select and must attempt to mirror it emotionally.
- write an essay explaining their interpretation of the music and justifying their use of color and movement.
- display their work and discuss it in terms of color, composition, and effectiveness of the interpretation of the music.
- visit museums, galleries, and artists' studios.
- display the artwork and written pieces for class critique.
- create assessment standards with the class, and analyze the artwork and writing in terms of visual and literary effectiveness.
- select works for student portfolios that illustrate process and product.



# PERFORMANCE

*New York City—First Edition*

NEW  
STANDARDS™

# STANDARDS

English Language Arts

English as a Second Language

Spanish Language Arts

# OVERVIEW OF THE PERFORMANCE STANDARDS

The high school standards are set at a level of performance approximately equivalent to the end of tenth grade. It is expected that some students might achieve this level earlier and others later than this grade. (See "Deciding what constitutes a standard-setting performance," page 8.)

## E English Language Arts

### E1 Reading

- E1a Read twenty-five books of the quality and complexity illustrated in the sample reading list.
- E1b Read and comprehend at least four books on the same subject, or by the same author, or in the same genre.
- E1c Read and comprehend informational materials.

### E2 Writing

- E2a Produce a report of information.
- E2b Produce a response to literature.
- E2c Produce a narrative account (fictional or autobiographical).
- E2d Produce a narrative procedure.
- E2e Produce a persuasive essay.
- E2f Produce a reflective essay.

### E3 Speaking, Listening, and Viewing

- E3a Participate in one-to-one conferences with the teacher.
- E3b Participate in group meetings.
- E3c Prepare and deliver an individual presentation.
- E3d Make informed judgments about TV, radio, film.
- E3e Listen to and analyze a public speaking performance.

### E4 Conventions, Grammar, and Usage of the English Language

- E4a Independently and habitually demonstrate an understanding of the rules of the English language in written and oral work.
- E4b Analyze and subsequently revise work to improve its clarity and effectiveness.

### E5 Literature

- E5a Respond to non-fiction, fiction, poetry, and drama using interpretive and critical processes.
- E5b Produce work in at least one genre that follows the conventions of the genre.

### E6 Public Documents

- E6a Critique public documents with an eye to strategies common in public discourse.
- E6b Produce public documents.

### E7 Functional Documents

- E7a Critique functional documents with an eye to strategies common to effective functional documents.
- E7b Produce functional documents appropriate to audience and purpose.

The margin notes on pages illustrating work produced by ESL students identify some of the expectations from the English as a Second Language chapter of the *New York City Curriculum Frameworks*. The ESL Frameworks are in alignment with the *New Standards™ Performance Standards*, and are intended for use across the disciplines by educators of English language learners.

## E1 Reading



See how these performance descriptions compare with the expectations for elementary school and middle school, turn to pages 218-227.

**E1a** assumes an adequate library of appropriate reading material. In some places, library resources are too meager to support the amount of reading required for every student to achieve this standard. Where a shortage of books exists, better use of out-of-school resources must be made; for example, students may have to be assured access to local or county libraries.

The cross-references after the examples that begin "M," "S," and "A" refer to the performance standards for Mathematics, Science, and Applied Learning respectively. See, for example, the cross-references after the examples of activities for **E1c**.

**E1a** is intended primarily to generate the reading of full-length books. Combinations of city magazines, newspapers, on-line materials etc., may be treated as equivalent texts that contribute to meeting the requirement of twenty-five books. Similarly, collections of portions of full-length books may be considered as book equivalents.

**E1b** is intended to encourage students to invest themselves thoroughly in an area that interests them. Such an investment will generate reading from an array of resources, giving students more experience of reading as well as increased understanding of a subject.

*Reading is a process which includes demonstrating comprehension and showing evidence of a warranted and responsible interpretation of the text. "Comprehension" means getting the gist of a text. It is most frequently illustrated by demonstrating an understanding of the text as a whole; identifying complexities presented in the structure of the text; and extracting salient information from the text. In providing evidence of a responsible interpretation, students may make connections between parts of a text, among several texts, and between texts and other experiences; make extensions and applications of a text; and examine texts critically and evaluatively.*

**E1a** The student reads at least twenty-five books or book equivalents each year. The quality and complexity of the materials to be read are illustrated in the sample reading list. The materials should include traditional and contemporary literature (both fiction and non-fiction) as well as magazines, newspapers, textbooks, and on-line materials. Such reading should represent a diverse collection of material from at least three different literary forms and from at least five different writers.

*Examples of activities through which students might produce evidence of reading twenty-five books include:*

- Maintain an annotated list of works read. **1b**
- Generate a reading log or journal. **1b**
- Participate in formal and informal book talks. **1b, 3a, 3b**

**E1b** The student reads and comprehends at least four books (or book equivalents) about one issue or subject, or four books by a single writer, or four books in one genre, and produces evidence of reading that:

- makes and supports warranted and responsible assertions about the texts;
- supports assertions with elaborated and convincing evidence;
- draws the texts together to compare and contrast themes, characters, and ideas;
- makes perceptive and well developed connections;
- evaluates writing strategies and elements of the author's craft.

*Examples of activities through which students might produce evidence of reading comprehension include:*

- A saturation report (a report that recounts substantial information on a topic gathered by a student over a period of time). **1c, 2a, 4a, 4b**
- Construct a review of several works by a single author. **2b, 4a, 4b, 5a**
- Produce a literary response paper. **2b, 4a, 4b, 5a**
- Produce a research report. **1c, 2a, 2b, 4a, 4b, 5a, MB1**
- Participate in formal or informal book talks. **1a, 1c, 3a, 3b, 5a**
- Create an annotated book list organized according to author, theme, or genre. **1a**

**E1c** The student reads and comprehends informational materials to develop understanding and expertise and produces written or oral work that:

- restates or summarizes information;
- relates new information to prior knowledge and experience;
- extends ideas;
- makes connections to related topics or information.

*Examples of activities through which students might produce evidence of reading informational materials include:*

- Use information to support or enhance a project. **2a, 4a, 4b, MB, SB, A3a**

- Write a report of information that draws from at least four sources. **2a, 4a, 4b**
- Incorporate expert opinions into a speech or position paper. **2a, 3c, 4a, 4b**
- Develop a proposal based on data obtained from reading informational texts. **4a, 4b**
- Use informational materials to reach a conclusion regarding a controversial topic. **2a, 4a, 4b**
- Develop a portfolio of materials regarding a particular career choice.
- Write exhibit notes for historical or artistic exhibits.

*This is a sample reading list from which the students and teachers could select. This list is not exclusive. Acceptable titles also appear on lists produced by organizations such as the National Council of Teachers of English and the American Library Association. Substitutions might also be made from lists approved locally. The sample list for Spanish Language Arts is on page 228.*

### Fiction

Achebe, *Things Fall Apart*;  
 Baldwin, *The Fire Next Time*;  
 Black Elk, *Black Elk Speaks*;  
 Brown, *Manchild in the Promised Land*;  
 Carroll, *Alice in Wonderland*;  
 Clark, *The Ox-Bow Incident*;  
 Delaney, *Having Our Say*;  
 Ellison, *Invisible Man*;  
 Golding, *Lord of the Flies*;  
 Hawthorne, *The Scarlet Letter*;  
 Hemingway, *For Whom the Bell Tolls*;  
 Hentoff, *The Day They Came to Arrest the Book*;  
 Hilton, *Goodbye, Mr. Chips*;  
 Kingsolver, *Figs in Heaven*;  
 Kinella, *Shoeless Joe*;  
 Knowles, *A Separate Peace*;  
 Lee, *To Kill a Mockingbird*;  
 Malcolm X, *Autobiography of Malcolm X*;  
 McCullers, *The Heart Is a Lonely Hunter*;  
 Mohr, *In Nueva York*; *El Bronx Remembered*; Nilda;  
 Morrison, *The Bluest Eyes*;  
 Orwell, *1984*;  
 Parris, *True Grit*;  
 Potok, *Davita's Harp*;  
 Stoker, *Dracula*;  
 Tan, *Joy Luck Club*; *The Kitchen God's Wife*;  
 Thomas, *Down These Mean Streets*;  
 Wartski, *A Boat to Nowhere*;  
 Welty, *The Golden Apples*.

### Non-Fiction

Angell, *Late Innings*;  
 Angelou, *I Know Why the Caged Bird Sings*;  
 Ashe, *Days of Grace*;  
 Beal, "I Will Fight No More Forever": *Chief Joseph and the Nez Perce War*;  
 Bishop, *The Day Lincoln Was Shot*;  
 Bloom, *The Closing of the American Mind*;  
 Campbell, *The Power of Myth*;  
 Covey, *Seven Habits of Highly Effective People*;  
 Galarza, *Barrio Boy*;  
 Hawking, *A Brief History of Time*;  
 Houston, *Farewell to Manzanar*;  
 Kennedy, *Profiles in Courage*;  
 Kingsley and Levitz, *Count Us In: Growing Up With Down Syndrome*;  
 Kingston, *Woman Warrior*;  
 Mazet, ed., *Going Where I'm Coming From*.

**E2 Writing**

Momaday, *The Way to Rainy Mountain*;  
 Rodriguez, *Hunger for Memory*;  
 ...berg, *User's Guide to the Internet*;  
 ...ght, *Black Boy*.

**Poetry**  
 Angelou, *I Shall Not be Moved*;  
 Bly, ed., *News of the Universe*;  
 Cummings, *Collected Poems*;  
 Dickinson, *Complete Poems*;  
 Randall, ed., *The Black Poets*;  
 Carruth, ed., *The Voice That Is Great Within Us*;  
 Hughes, *Selected Poems*;  
 Knudson and Swenson, eds., *American Sports Poems*;  
 Longfellow, *Evangeline*;  
 Wilbur, *Things of This World*.

**Drama**  
 Christie, *And Then There Were None*;  
 McCullers, *The Member of the Wedding*;  
 Pomerance, *The Elephant Man*;  
 Rose, *Twelve Angry Men*;  
 Rostand, *Cyrano de Bergerac*;  
 Shakespeare, *Midsummer's Night Dream*; *Othello*; *Romeo and Juliet*; *Julius Caesar*;  
 Sophocles, *Oedipus Plays*;  
 Van Druen, *I Remember Mama*;  
 Wilder, *The Skin of Our Teeth*;  
 Wilson, *Fences*; *The Piano Lesson*.

**Folklore/Mythology**  
 Burland, *North American Indian Mythology*;  
 Evison, *Adventures of Ulysses*;  
 Hamilton, *Myths*;  
 Pimsent, *Greek Mythology*;  
 Stewart, *The Crystal Cave*;  
 White, *The Once and Future King*.

**Modern Fantasy and Science Fiction**  
 Adams, *Watership Down*;  
 Asimov, *Caves of Steel*; *Foundation*;  
 Bradbury, *The Martian Chronicles*;  
 Clarke, 2001: *A Space Odyssey*; *Childhood's End*;  
 Frank, *Alas, Babylon*;  
 ...bert, *Dune*;  
 ...on, *Last Horizon*;  
 ...uxley, *Brave New World*;  
 Lewis, *Out of the Silent Planet*;  
 McCaffrey, *Dragonflight*;  
 Twain, *A Connecticut Yankee in King Arthur's Court*;  
 Verne, *20,000 Leagues Under the Sea*.

**Magazines and Newspapers**  
*El Diario*;  
*Amsterdam News*;  
*Consumer Reports*;  
*Ebony*;  
*Jet*;  
*Latina*;  
*Literary Cavalcade* (Scholastic);  
*National Geographic*;  
*New York Times*;  
*Newsweek*;  
*Omni*;  
*Sports Illustrated*;  
*Smithsonian*;  
*Time*.

**Other**  
 Computer manuals; instructions; contracts; technical materials.

*Writing is a process through which a writer shapes language to communicate effectively. Writing often develops through a series of initial plans and multiple drafts and through access to informed feedback and response. Purpose, audience, and context contribute to the form and substance of writing as well as to its style, tone, and stance.*

- 32a** The student produces a report that:
- engages the reader by establishing a context, creating a persona, and otherwise developing reader interest;
  - develops a controlling idea that conveys a perspective on the subject;
  - creates an organizing structure appropriate to purpose, audience, and context;
  - includes appropriate facts and details;
  - excludes extraneous and inappropriate information;
  - uses a range of appropriate strategies, such as providing facts and details, describing or analyzing the subject, narrating a relevant anecdote, comparing and contrasting, naming, explaining benefits or limitations, demonstrating claims or assertions, and providing a scenario to illustrate;
  - provides a sense of closure to the writing.

*Examples of reports include:*

- An I-search essay (an essay that details a student's search for information as well as the information itself; I-search papers are developed through a variety of means, e.g., interviews, observation, as well as traditional library research). **1c, 4a, 4b**
- A saturation report (a report that recounts substantial information on a topic gathered by a student over a period of time). **1c, 4a, 4b**
- A report produced as part of studies in subjects such as science, social studies, and mathematics. **1c, 4a, 4b, M7b, M7e, M7g, S7a, S7b, S7c**
- A formal or informal research paper. **1c, 4a, 4b, 5a**
- An investigative report for a newspaper. **1c, 4a, 4b**

**32b** The student produces a response to literature that:

- engages the reader through establishing a context, creating a persona, and otherwise developing reader interest;
- advances a judgment that is interpretive, analytic, evaluative, or reflective;
- supports a judgment through references to the text, references to other works, authors, or non-print media, or references to personal knowledge;
- demonstrates understanding of the literary work through suggesting an interpretation;
- anticipates and answers a reader's questions;
- recognizes possible ambiguities, nuances, and complexities;
- provides a sense of closure to the writing.

*Examples of responses to literature include:*

- An evaluation of a piece of literature or several pieces of literature. **1b, 4a, 4b, 5a**
- A comparison of a piece of literature with its media presentation. **1b, 3d, 4a, 4b, 5a**
- A response that focuses on personalizing the theme of a literary work. **1b, 4a, 4b, 5a**
- An analysis of the significance of a section of a novel in terms of its significance to the novel as a whole. **1b, 4a, 4b, 5a**
- An evaluation of the role played by setting in a novel. **1b, 4a, 4b, 5a**
- An analysis of the effect of a minor character on the plot of a novel. **1b, 4a, 4b, 5a**

*(Continued overleaf)*



**32a** is not intended to be a cursory experience of doing research on a topic which often requires little more than scanning materials, copying directly from references, and inserting transitional phrases and paragraphs. The challenge with the depth requirement is to encourage a complex understanding developed and enhanced through reading.

Samples of student work that illustrate standard-setting performances for these standards can be found on page 164-217.

The examples that follow the performance descriptions for each standard are examples of the work students might do to demonstrate their achievement. The examples also indicate the nature and complexity of activities that are appropriate to expect of students at the high school level.

The cross-references that follow the examples highlight examples for which the same activity, and possibly even the same piece of work, may enable students to demonstrate their achievement in relation to more than one standard. In some cases, the cross-references highlight examples of activities through which students might demonstrate their achievement in relation to standards for more than one subject matter.

**32b** is meant to expand the repertoire of responses students traditionally write when they respond to literature. This type of response requires an understanding of writing strategies.

## Speaking, Listening, and Viewing

*Speaking, listening, and viewing are fundamental processes which people use to express, explore, and learn about ideas. The functions of speaking, listening, and viewing include gathering and sharing information; persuading others; expressing and understanding ideas; coordinating activities with others; and selecting and critically analyzing messages. The contexts of these communication functions include one-to-one conferences, small group interactions, large audiences and meetings, and interactions with broadcast media.*

- EB** The student participates in one-to-one conferences with a teacher, paraprofessional, or adult volunteer, in which the student:
- introduces new topics in addition to responding to adult-initiated topics;
  - asks relevant questions;
  - responds to questions with appropriate elaboration;
  - uses language cues to indicate different levels of certainty or hypothesizing, e.g., "what if..." "very likely..." "I'm unsure whether...";
  - confirms understanding by paraphrasing the adult's directions or suggestions.

*Examples of one-to-one interactions include:*

- Analytical discussion of movies or television programs in a one-to-one situation. **3d, 4a, 4b**
- Student-teacher conferences regarding a draft of an essay, the student's progress on a mathematics assignment, or the state of a science project. **4b**
- Assessment interview by a teacher about an author or book. **1b, 5a**

- EB** The student participates in group meetings, in which the student:

- displays appropriate turn-taking behaviors;
- actively solicits another person's comment or opinion;
- offers own opinion forcefully without dominating;
- responds appropriately to comments and questions;
- volunteers contributions and responds when directly solicited by teacher or discussion leader;
- provides reasons in support of opinions expressed;
- clarifies, illustrates, or expands on a response when asked to do so; asks classmates for similar expansions;
- employs a group decision-making technique such as brainstorming or a problem-solving sequence (e.g., recognize problem, define problem, identify possible solutions, select optimal solution, implement solution, evaluate solution);
- divides labor so as to achieve the overall group goal efficiently.

*Examples of activities involving group meetings include:*

- Develop and negotiate a classroom rubric.
- Engage in classroom town meetings.
- Participate in book talks with other students. **1a, 1b, 1c, 5a**
- Work as part of a group to solve a complex mathematical task.
- Role-play to better understand a certain historical event. **1c**
- Participate in peer writing response groups. **4b**

- EB** The student prepares and delivers an individual presentation, in which the student:

- gathers information to achieve a particular purpose and to appeal to the interests and background knowledge of audience members;
- shapes content and organization according to criteria for importance and impact rather than according to availability of information in resource materials;

- uses notes or other memory aids to structure the presentation;
- develops several main points relating to a single thesis;
- engages the audience with appropriate verbal cues and eye contact;
- projects a sense of individuality and personality in selecting and organizing content, and in delivery.

*Examples of presentations include:*

- An individual talk which develops several main points relating to a single thesis (e.g., describing a problem and evaluating alternative solutions to that problem, or explaining several causes leading to a historical event, or constructing different types of argument all supporting a particular policy). **4a, 4b**
- A public panel discussion during which each member of the panel speaks about a particular area of expertise relating to the overall topic. **4a**
- A forum discussion during which audience members question and respond to panelists during the presentation. **4a, 4b**
- A simulated congress (e.g., Model United Nations) in which each participant "represents" the interests of a particular constituency. **4a**

- EB** The student makes informed judgments about television, radio, and film productions; that is, the student:

- demonstrates an awareness of the presence of the media in the daily lives of most people;
- evaluates the role of the media in focusing attention and in forming opinion;
- judges the extent to which the media are a source of entertainment as well as a source of information;
- defines the role of advertising as part of media presentation.

*Examples of activities through which students might produce evidence of making informed judgments about television, radio, and film production include:*

- Maintain a week's log to document personal viewing habits, and analyze the information collected in the log.
- Summarize patterns of media exposure in writing or in an oral report. **2a, 3c, 4a, 4b**
- Analyze the appeal of popular television shows and films for particular audiences. **2a, 4a, 4b**
- Explain the use of "propaganda techniques" (e.g., bandwagon, glittering generalities, celebrity) in television commercials. **2a, 4a, 4b**
- Analyze the characteristics of different television genres (e.g., the talk show, the situation comedy, the public affairs show). **2a, 4a, 4b**

- EB** The student listens to and analyzes a public speaking performance; that is, the student:

- takes notes on salient information;
- identifies types of arguments (e.g., causation, authority, analogy) and identifies types of logical fallacies (e.g., ad hominem, inferring causation from correlation, over-generalization);
- accurately summarizes the essence of each speaker's remarks;
- formulates a judgment about the issues under discussion.

*Examples of activities through which students might provide evidence of analysis of public speaking include:*

- Take notes of a meeting of a local government council or of an institution's governing body.
- Make a report detailing testimony from a local trial. **2a, 4a, 4b**
- Analyze an address by a political leader. **4a, 4b, 6a**



Samples of student work that illustrate standard-setting performances for these standards can be found on pages 164-217.

For samples of student work that illustrate standard-setting performances for **EB1** and **EB2** refer to the videotape accompanying this book.

The work students produce to meet the English Language Arts standards does not all have to come from an English class. Students should be encouraged to use work from subjects in addition to English to demonstrate their accomplishments. The work samples include some examples of work produced in other classes that meet requirements of these standards. See page 194.

**E4 Conventions, Grammar, and Usage of the English Language**

Having control of the conventions and grammar of the English language means having the ability to represent oneself appropriately with regard to current standards of correctness (e.g., spelling, punctuation, paragraphing, capitalization, subject-verb agreement). Usage involves the appropriate application of conventions and grammar in both written and spoken formats.

**E4a** The student independently and habitually demonstrates an understanding of the rules of the English language in written and oral work, and selects the structures and features of language appropriate to the purpose, audience, and context of the work. The student demonstrates control of:

- grammar;
- paragraph structure;
- punctuation;
- sentence construction;
- spelling;
- usage.

Examples of activities through which students might demonstrate an understanding of the rules of the English language include:

- Demonstrate in a piece of writing the ability to manage the conventions, grammar, and usage of English so that they aid rather than interfere with reading. **2a, 2b, 2c, 2d, 2e, 2f, 3d, 5a, 5b, 6h, 7b**
- Independently and accurately proofread the student's own writing or the writing of others, using dictionaries, thesauruses, and other resources as appropriate. **2a, 2b, 2c, 2d, 2e, 2f, 3d, 5a, 5b, 6b, 7b**
- Observe the conventions of language during formal oral presentations. **3a**
- Demonstrate use of a variety of sentence patterns for stylistic effect. **2a, 2b, 2c, 2d, 2e, 2f, 3c, 3d, 5a, 5b, 6b, 7b**

**E4b** The student analyzes and subsequently revises work to clarify it or make it more effective in communicating the intended message or thought. The student's revisions should be made in light of the purposes, audiences, and contexts that apply to the work.

Strategies for revising include:

- adding or deleting details;
- adding or deleting explanations;
- clarifying difficult passages;
- rearranging words, sentences, and paragraphs to improve or clarify meaning;
- sharpening the focus;
- reconsidering the organizational structure;
- rethinking and/or rewriting the piece in light of different audiences and purposes.

Examples of activities through which students might provide evidence of analyzing and revising written work include:

- Incorporate into revised drafts, as appropriate, suggestions taken from critiques made by peers and teachers. **2a, 2b, 2c, 2d, 2e, 2f, 3c, 3d, 5a, 5b, 6b, 7b**
- Produce a series of distinctly different drafts that result in a polished piece of writing or presentation. **2a, 2b, 2c, 2d, 2e, 2f, 3c, 3d, 5a, 5b, 6b, 7b**
- Critique the writing or presentation of a peer.
- Describe the reasons for stylistic choices made as a writer or presenter. **2a, 2b, 2c, 2d, 2e, 2f, 3c, 3d, 5a, 5b, 6b, 7b**
- Produce a series of papers on the same topic, each serving a different purpose. **2a, 2b, 2c, 2d, 2e, 2f, 3d, 5a, 5b, 6b, 7b**

**E5 Literature**

Literature consists of poetry, fiction, non-fiction, and essays as distinguished from instructional, expository, or journalistic writing.

**E5a** The student responds to non-fiction, fiction, poetry, and drama using interpretive, critical, and evaluative processes; that is, the student:

- makes thematic connections among literary texts, public discourse, and media;
- evaluates the impact of authors' decisions regarding word choice, style, content, and literary elements;
- analyzes the characteristics of literary forms and genres;
- evaluates literary merit;
- explains the effect of point of view;
- makes inferences and draws conclusions about fictional and non-fictional contexts, events, characters, settings, themes, and styles;
- interprets the effect of literary devices, such as figurative language, allusion, diction, dialogue, description, symbolism;
- evaluates the stance of a writer in shaping the presentation of a subject;
- interprets ambiguities, subtleties, contradictions, ironies, and nuances;
- understands the role of tone in presenting literature (both fictional and non-fictional);
- demonstrates how literary works (both fictional and non-fictional) reflect the culture that shaped them.

Examples of responding to literature include:

- Analyze stereotypical characters in popular fiction. **1b, 2b, 4a, 4b**
- Evaluate the effect of literary devices in a number of poems by one author or poems on a common topic. **1b, 2b, 4a, 4b**
- Compare the literary merits of two or more short stories, biographies of one individual, novels, or plays. **1b, 2b, 4a, 4b**
- Compare two different video presentations of a literary work. **1b, 2b, 3d, 4a, 4b**
- Compare two works written in different time periods on the same topic or theme. **1b, 2b, 4a, 4b**
- Evaluate the persona of the writer. **1b, 2b, 4a, 4b**
- Compare two literary texts that share a similar theme. **1b, 2b, 4a, 4b**
- Analyze the author's point of view toward an issue raised in one of an author's works. **1b, 2b, 4a, 4b**
- Analyze the literary, cultural, and social context of a literary work. **1b, 2b, 4a, 4b**

**E5b** The student produces work in at least one literary genre that follows the conventions of the genre.

Examples of literary genres include:

- A reflective essay. **2f, 4a, 4b**
- A memoir. **4a, 4b**
- A short story. **2c, 4a, 4b**
- A short play. **4a, 4b**
- A poem. **4a, 4b**
- A vignette. **4a, 4b**



see how these performance descriptions compare with the expectations for elementary school and middle school, turn to pages 218-227.

The examples that follow the performance descriptions for each standard are examples of the work students might do to demonstrate their achievement. The examples also indicate the nature and complexity of activities that are appropriate to expect of students at the high school level.

The cross-references that follow the examples highlight examples for which the same activity, and possibly even the same piece of work, may enable students to demonstrate their achievement in relation to more than one standard. In some cases, the cross-references highlight examples of activities through which students might demonstrate their achievement in relation to standards for more than one subject matter.

These standards allow for oral performances of student work wherever appropriate.

**Public Documents**

A public document is a document that focuses on civic issues or of public policy at the community level or beyond. These documents, ranging from speeches to editorials to radio and television spots to pamphlets, do at least one of the following: take issue with a controversial public policy; suggest an alternative course of action; analyze and defend a contemporary public policy; define a public problem and suggest policy.

- The student critiques public documents with an eye to strategies common in public discourse, including:
  - effective use of argument;
  - use of the power of anecdote;
  - anticipation of counter-claims;
  - appeal to audiences both friendly and hostile to the position presented;
  - use of emotionally laden words and imagery;
  - citing of appropriate references or authorities.
- Examples of activities through which students might provide evidence of critiquing public documents include:
  - Analyze a political speech. **1c, 3a**
  - Evaluate an editorial. **1c**
  - Examine campaign literature to determine underlying assumptions. **1c, 2a**
- **3b** The student produces public documents, in which the student:
  - exhibits an awareness of the importance of precise word choice and the power of imagery and/or anecdote;
  - utilizes and recognizes the power of logical arguments, arguments based on appealing to a reader's emotions, and arguments dependent upon the writer's persona;
  - uses arguments that are appropriate in terms of the knowledge, values, and degree of understanding of the intended audience;
  - uses a range of strategies to appeal to readers.
- Examples of public documents include:
  - A proposal for changing an existing social or school policy. **2a, 3a, 4b**
  - An analysis of a state policy. **4a, 4b**
  - A policy statement that closely examines a significant public policy and proposes a change. **4a, 4b**
  - A letter to an elected official taking a position on an issue or concern. **4a, 4b**
  - A press release announcing a policy. **4a, 4b**

**E7 Functional Documents**

A functional document is a document that exists in order to get things done, usually within a relatively limited setting such as a social club, a business, an office, a church, or an agency. These documents often take the form of memoranda, letters, instructions, and statements of organizational policies. Functional documents require that particular attention be paid to issues of layout, presentation, and particularly to audience and the way different audiences will interact with the documents.

- **1a** The student critiques functional documents with an eye to strategies common to effective functional documents, including:
  - visual appeal, e.g., format, graphics, white space, headers;
  - logic of the sequence in which the directions are given;
  - awareness of possible reader misunderstandings.
- Examples of activities through which students might provide evidence of critiquing functional documents include:
  - Analyze a manual.
  - Analyze a contract.
  - Evaluate a loan application.
  - Critique tax documents.

- **2a** The student produces functional documents appropriate to audience and purpose, in which the student:
  - reports, organizes, and conveys information and ideas accurately;
  - includes relevant narrative details, such as scenarios, definitions, and examples;
  - anticipates readers' problems, mistakes, and misunderstandings;
  - uses a variety of formatting techniques, such as headings, subordinate terms, foregrounding of main ideas, hierarchical structures, graphics, and color;
  - establishes a persona that is consistent with the document's purpose;
  - employs word choices that are consistent with the persona and appropriate for the intended audience.
- Examples of functional documents include:
  - A summary of a meeting. **4a, 4b**
  - A manual. **2d, 4a, 4b, A1**
  - A proposal. **4a, 4b, A1**
  - A set of instructions. **2d, 4a, 4b, A1**
  - A recommendation. **4a, 4b, A1**



Samples of student work that illustrate standard-setting performances for these standards can be found on pages 164-217.

Much writing can be classified as belonging to the public arena. At the high school level, students should address issues which are of national importance in work directed toward accomplishment of **1a**.

Functional writing, as described in **1a**, is ordinarily considered technical writing. As such, functional documents are often not part of the typical English curriculum. New Standards requires students to demonstrate proficiency with functional documents because such writing is of increasing importance to the complex literacy of our culture.

# Work Sample & Commentary: My Thoughts on Literature

## The task

In March 1997, students were asked to produce an annotated bibliography of all the books they had read since September 1996. This list includes a number of texts used to compile a humanities term paper.

## Circumstances of performance

This sample of student work was produced under the following conditions:

- ✓ alone in a group
- ✓ in class ✓ as homework
- with teacher feedback with peer feedback
- timed opportunity for revision

## What the work shows

**RI.1** Reading: The student reads at least twenty-five books or book equivalents each year. The quality and complexity of the materials to be read are illustrated in the sample reading list. The materials should include traditional and contemporary literature (both fiction and non-fiction) as well as magazines, newspapers, textbooks, and on-line materials. Such reading should represent a diverse collection of material from at least three different literary forms and from at least five different writers.

The complete bibliography illustrates that the student met the goal of reading twenty-five books of the appropriate quality of literature for the high school standard. This excerpt of the student's annotated bibliography provides evidence that the student read a variety of books and book equivalents including traditional fiction, contemporary fiction, and classical and contemporary non-fiction accounts of World War II. The student regularly reads both *The New York Times* and *New York Daily News*. The student cited three magazines: *The Source*, *Popular Mechanics*, and *Crushfield* as well as cookbooks, history books, and articles on psychology.

Such reading represents a diverse collection of material from poetry, non-fiction, short stories, and novels.

There is an error in the spelling of Anne Frank's name.

This work sample illustrates a standard-setting performance for the following part of the standards:

**RI.1** Reading: Read at least twenty-five books or book equivalents each year.

My Thoughts on Literature

By \_\_\_\_\_

The following is a list of books that I have read and enjoyed in connection with my senior year in high school, 1996-97.

**PLATE**  
**Demetrius Rex** - Sophocles - This play had never-ending twists and turns as the fate of Demetrius to marry his mother and kill his father came true.  
**Heart** - William Shakespeare - This is a tale of a truly tragic and dysfunctional family. Revenge causes everyone's undoing.  
**Macbeth** - William Shakespeare - This tale is told except for the sheet that brings Macbeth's conscience into play during the banquet and subsequently causes his downfall from power. He was NOT all-powerful as he thought.  
**A Doll's House** - Henrik Ibsen - An intricate tale of a woman who lived like a doll in her husband's eyes and lies to him to save his life. It is a story that shows women are intelligent and can deal with matters supposedly beyond their "capabilities."  
**The Glass Menagerie** - Tennessee Williams - Amanda lives through her children, Laura and Tom, both are unable to accept who they really are, while being interpreted and live through objects rather than dealing directly with life and their emotions.

**POETRY**  
**"Lycidas"** - John Milton - I didn't like this. It was hard to understand and too long.  
**"Ode on a Grecian Urn"** - John Keats - People never age in a work of art. I like this idea.  
**"Let Me Not to the Marriage of True Minds"** - William Shakespeare - This sonnet says that the inner self is the true reflection of a person's heart's outward appearances and feelings.  
**"My Mistress' Eyes are Nothing Like the Sun"** - William Shakespeare - She's not great looking, but she's all that I compare her to a summer's day.  
**"Shall I Compare Thee to a Summer's Day?"** - William Shakespeare - Another sonnet that says that love is like the beauty that may come and go. Love is all that matters - This is about how death can take away the body but cannot conquer the love you have for a person.  
**"For the Searched Dead at Piccola"** - Elizabeth Siddons - Soldiers who die in battle live on despite their death.  
**"She Walks in Beauty"** - George Gordon, Lord Byron - I don't know what to say about this. Byron's cousin in "Ozymandias" - Percy Bysshe Shelley - The statue of the mighty king has fallen into dust in the desert. In action, must to die in our everyday no matter how great they are.  
**"When I Have Fears"** - John Keats - The poet wonders what he may not have concluded in life when death comes.  
**"May We Love His Day on the Cold Sea"** - Archilochus - The sea, or in this case, the cause of a string of curses!  
**"LXIII"** - Calpurnius - He wonders love and hate. He feels pain because it's a rivalry.

My Thoughts on Literature

**"Then"** - Safo - The personification of dawn speaks to us as you like a little love in the night.  
**"I Wandered Lonely as a Cloud"** - William Wordsworth - A friend who releases from a contract may be the death of the sea, or in this case, the cause of a string of curses!  
**"Lines Composed a Few Miles above Tintern Abbey"** - William Wordsworth - He feels alive in the country and tired in the city.  
**"The World is too Much with Us"** - William Wordsworth - We work too much and need to get back to nature.  
**"My Last Duchess"** - Robert Browning - The constricted Duke of Ferrara shows the picture of his late wife, whom he killed for smiling at others, to the father of his next wife, Bianca.  
**"Porphyria's Lover"** - Robert Browning - Another needed us Porphyria kills his lover before letting her sleep on his shoulder and playing with her hair!

## APPENDIX 20

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