Conservation of Cultural and Historic Landscape of Walden Pond and Woods – With a Particular Focus on Socio-cultural Environment and Corresponding Activities

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Abstract—Walden Pond and Woods, Massachusetts, U.S is an iconic destination, best known for Henry David Thoreau’s book-Walden (1854). Thoreau’s philosophy and the literal value of the book as well as the natural landscape of Walden inspired worldwide literature readers and numerous modern environmentalists. This unique cultural and historical landscape has a long history of conservation effort in various forms started as far back as 1800’s. As a result, now, 80 percent of Walden Woods is permanently preserved. This study focuses on the changing socio-cultural environments and corresponding activities by various stake holders. To clarify the factors that led to its success of today, primary source survey and hearings to the stakeholders were taken place. The study period from 1845 to 2016 is divided in 4phases by characteristic socio-cultural environments. In each phase, corresponding conservation activities were researched and clarified: Phase1 (1845 ~1921): Industrialization and population increase vs. individual activities; Phase2 (1922-1972): Economic growth and Middlesex County’s management policy vs. citizen group’s movement; Phase3 (1972-1987): Rise of environmental awareness vs. involvement of public agencies, policy and plan makings and public input; Phase4 (1988-2016): Suburbanization vs. WWP and continuous implementation of conservation plan. The clarified factors that lead to the success are 1) Common value of the place to empathy with 2) Diversity in stakeholders 3) Long-term and systematic conservation plan with both government and citizen’s participation

Index Terms—Conservation of cultural and historic landscape, Walden Pond and Woods, socio-cultural environment, common value of the place

I. INTRODUCTION

Walden Woods is a network of 2,680-acre open-space, located in the towns of Concord and Lincoln in Massachusetts, United States of America. Walden Pond is a natural lake with an area of 65-acres, a depth of 33-meters located in the heart of Walden Woods. The area that includes Walden Pond and Walden Woods is commonly called as ‘Walden’, Fig. 1 shows the extent of Walden Pond and Middlesex County in Massachusetts. Fig. 2 is a photo of Walden Pond and Woods.

Walden began to be known to the world by the book Walden [1], written by Henry David Thoreau (1812–1862), a transcendentalist lived in Concord. He wrote Walden while living in the woods near Walden Pond for two years from 1845 to 1847. Walden depicts the natural beauty of Walden’s four seasons and is one of the works that embodies American literature. Walden also has been regarded as a birthplace of the modern environmental protection spirit and has continued to influence various environmental activists because Thoreau and other intellectuals such as Emerson, Alcott, Channing, and other transcendental advocates who lived in Concord during the same era (1800’s~1900’s) deepened the idea of pursuing the relationship of human beings and nature that should be. Given this highly regarded cultural and historical importance, Walden Pond and some parts of Walden Woods have been designated as the Walden Pond State Conservation Area (WPSR) and the National Register of Historic Places (NHL). Today, 80percent of Walden Woods are permanently protected and the natural environment around Walden Pond is systematically managed.

Fig. 1. Map of walden pond, massachusetts and middlesex county. (Self-drawn by author over Internet source)

Fig. 2. Photo of walden pond and surrounding walden woods. (Courtesy Concord Free Public Library)
history of conservation activities of Walden Pond and Woods in relation to the cultural and social environment and clarifies the factors that lead to the success of today.

During the history of over 100 years, the changes of surrounding environment have had effect on Walden Pond and Woods. The population growth, suburbanization, automobile and leisure boon, resort or commercial facility development plans, environmental awareness of public influenced on the natural environment and conservation policies of the place.

The authors first divided the history into 4 phases with characteristic social environment. In each phase, the socio-cultural background and corresponding conservation history is narrated and summarized.

II. PREVIOUS RESEARCH

The history of the town of Concord from pre-American independence to 2000 and the history of conservation around Walden Woods and Pond are introduced in Maynard’s Walden Pond - a history (2004) [2]. Maynard describes the literary and landscape roots of Walden chronologically based on literature surveys, field surveys and interviews with residents and people involved in various conservation activities. It is valuable material for grasping the historical facts and events surrounding Walden. However, there are few detailed references to the Walden Woods' conservation systems and mechanisms.

Blanding, who was a formal president of the Thoreau Society, has written numerous reports related to Thoreau, including the history and activities of conservation around Walden Pond and Woods. The articles reported the history of the destruction of nature in Walden Pond and the process leading to the Walden Pond State Reservation (WPSR) [3]. The reports were valuable in providing the local history and citizen’s voice on conservation of Walden, but, limited to the information of conservation activities until 1980’s.

Smith [4] reported how the abstract territory of Walden woods was geographically defined. The study is helpful to understand restoration process, but it discussed from the perspective of landscape researcher and focused on restoration rather than conservation activities.

Higuchi and Takao [5] discusses a series of efforts of landscape conservation mechanism and related systems for rural landscapes, especially for Lincoln, located the next to Concord across Walden Pond. The study is a helpful example to understand the rural conservation policies of Walden area, but the main topic doesn’t introduce conservation activities of Walden and the consideration is limited to the Lincoln Town.

In the review of past studies, there is little attempt to organize the conservation activities corresponding various socio-cultural background in the history or to clarify the factors to lead today’s success of conservation in Walden Pond and Wood.

III. RESEARCH METHOD

This study focuses on landscape conservation activities undertaken during the period from 1800’s to the present day, targeting Walden Pond and Walden Woods. When and how the various conservation activities were taken place in relation to the social background is researched by the following methods.

A. Survey of Primary Materials

The archives at the Concord Library and the Library of Congress (U.S.), and the materials held by the Thoreau Institute and other literatures were researched to investigate the nature around Walden Pond and the Town of Concord from 1800s.

To understand the idea of environmental conservation related to Walden, Thoreau's masterpiece Walden and Emerson’s masterpiece Nature (1836) [6] were studied thoroughly and to investigate the history and episodes, related literatures were referred.

To investigate the restoration plan, the original report of Walden Pond Restoration Study (1975) [7] was obtained and studied. It is the first systematic management plan for Walden Pond and Woods and has been the cornerstone of implementing the restoration and conservation plans to date.

Regarding the implementation of conservation plans after 2000, the investigation report of the National Park Service [8] and the Massachusetts state authorities [9, 10] were studied.

Regarding the on-site operation of WPSR, materials that include the committee meeting minutes, operation reports, newspaper articles, communication mails among related parties, etc. provided by Mr. Kenneth Barrett who has been the advisory chairman of WPSR from 1970 to the present day were investigated [11].

Court records, laws, and implementation status of conservation were investigated from consignment certificates, law drafts, court judgments, letters, other Official documents, and white papers obtained from Barrett Collection, Concord Library's Materials, and from the digital document archives of government sites and other related sites.

B. Field Survey and Hearing

The field survey was conducted in several times from 1997 to 2016. The authors resided in Cambridge and the town of Lincoln, Massachusetts from 1995 to 1999 and conducted a survey on Thoreau and Walden. Thereafter, the author and other researchers re-visited Concord and Lincoln in 2002, 2005, 2011 and 2016 to conduct field surveys and interviews of Walden Pond and Woods, Lincoln and Concord Land Trust, Walden Woods Project, Thoreau Society, and Concord Library.

During the 2016 visit, the experts and stake holders who have been involved in Walden's conservation program since the 1970s, curators at the Concord Library and Thoreau Institute were interviewed. Participants were Kathleen Anderson, executive officer of the Walden Woods project since its inception, Kenneth Barrett, the first member of WPSR advisory board and DCR, and a member of the WPSR board since 1970. Steward Weinerd, William Constable of the Lincoln Land Trust, Robert Yaro of Formal Professor of GSD and University of Pennsylvania, Harry Dodson, a landscape Architect.
IV. HISTORICAL REVIEW: SOCIO-CULTURAL ENVIRONMENT AND CORRESPONDING CONSERVATION ACTIVITIES

The authors divided the surveyed period from 1845 to present into four phases based on the characteristic social background. In each phase, the corresponding conservation activities were investigated and clarified.

A. Phase 1 (From 1845 to 1921): Industrialization and Population Increase vs. Individual Activities

Town of Concord is built in the 17th century. Until the 1800s, the forests around Walden Pond (Walden Woods) were largely the same as they were 200 years ago and were mainly owned by the descendants of the settlers [12]. Most of the woods were used to collect firewood. From 1845 to 1847, Thoreau lived in the woods owned by Emerson near Walden Pond and wrote Walden. Walden’s name became to be known to the world by this book.

The railroad industry was thriving in Boston in the mid-1800s, and the line from Boston to Concord (Fitchburg Railroad) opened in 1845. This accelerated population growth of Concord, from 1,900 in 1775, to 5,600 in 1900, nearly tripled over one century. [13, 14]. Trains also provided better access from Boston and increased the number of visitors to Concord and Walden Pond.

In 1855, the Fitchburg Railroad Company built the “Walden Amusement Park” on the land between the railroad tracks and the lakeshore, north of Walden Pond. The amusement park has a station dedicated to users and leisure facilities such as Dance Hall and Marie Go Round and was crowded with vacationers from Boston on weekends.

Around 1960, the citizen of Concord already already concerned about losing the character of place and increasing picnickers reveling in Walden [15]. The Revere Beach, a popular resort outside Boston at that time, lost its natural beauty due to the rush of commercial facilities. Loan citizens concerned that the landscape and image of Walden will be damaged in the same way.

The amusement park was closed in 1902 due to a fire, but the number of visitors and vacationers to Walden Pond continued to increase. The Fig. 3 summarizes the social environment and the corresponding conservation activities during the phase 1.

In this phase, Concord was developed as an important suburb of Boston, the center of American culture, politics, and industry at the time. Concord was also a home to many literary and the intellectuals including Emerson, who is a renown transcendentalist. The initial conservation activities in this area were land privatization, landscape research, and transmission activities of these individuals.

As an example of individual conservation activities, Thoreau’s Walden and Branding’s reports indicate that Emerson and others purchased forests near Walden Pond and tried to protect it from logging. Thoreau also surveyed Walden Pond and its vicinity (Walden Woods) and left over 40 drawings of forests and farms [16]. The drawings show that the most part of Walden Woods were privately owned. Especially Walden Pond and surrounding wood lots were owned by Emerson and his descendants and maintained until 1922, when they were donated to the states of Massachusetts.

Other personal conservation activities include writing and posting of books and speeches by transcendentalists, intellectuals, and literary figures such as Alcott, Churning, and Hawthorne who lived in Concord at this time [15]. They have propagated the ideal relationship between humans and nature. However, it is presumed that there were no systematic environmental conservation efforts during this period.

This period was also the time when Walden Pond and Woods began to be known outside the local area by Thoreau's Walden. Outside Walden, influenced by the naturalism and environmental ethics that emerged from Walden, Muir (1838–1914) and President Roosevelt (1858–1919) contributed to the establishment of the National Park System (1872) and Leopold (1887–1949) introduced the idea of land ethics.

B. Phase 2 (From 1922 to 1972): Economic Growth and Middlesex County’s Management Policy vs. Citizen Groups’ Movement

Continued from the end of previous phase, from the beginning of the 1900s, the automobile boom and economic development created more room for leisure. Walden Pond became crowded with automobile and visitors and its parking and beach exceeded the capacity [17].

In 1922, Emerson’s descendants entrust State of Massachusetts with 80.1 acres of land near Walden Pond to conserve Walden Pond. The terms of the consignment included “protecting Emerson and Thoreau’s Walden” and “preventing this landscape from becoming like Riviere Beach.” It also specifies its intended use and will serve as a guideline for the subsequent restoration and conservation of Walden Pond and Woods.

As a result, the Walden Pond State Reservation (WPSR) bill was passed in 1922, and the responsibility for its operation was given to the Commissioner of Middlesex County. The Fig. 4 summarizes the social environment and the corresponding conservation activities during the first part of phase 2.

However, the Commissioners of Middlesex County, who were responsible for management, prioritized the convenience of the user and regarded the pond as a place for waterfront recreation rather than maintaining or promoting the importance of this landscape as a historical and cultural heritage. The Commissioners made a “beach expansion plan” to expand the lakeshore around Walden Pond by 1.5 times. More than 100 large trees were cut down and the coast around the lake began to be excavated by the plan.
started without notifying the public.

![Fig. 4. summary of phase 2-1.](image)

The Fig. 6 summarizes the social environment and the corresponding conservation activities during the second part of phase 2.

![Fig. 6. summary of phase 2-2.](image)

The voices of the citizens who concerned about the destruction of the landscape of Walden increased. Citizen groups gathered and established the “Save Walden Committee,” and filed a lawsuit against the “Beach Expansion Plan” of Middlesex County. As a result, the Massachusetts Supreme Court ordered Middlesex County to restore the site to its original nature [18, 19].

During this period, along with economic growth, the number of people enjoying picnics and driving has increased. At Walden, the descendants of Emerson entrusted Walden Pond and the surrounding forests to the state. Outside Walden, environmental ethics and nature conservation movements grew active, centered on many conservationists influenced by Thoreau's philosophy. In 1962, Walden Pond was designated as a national historic landmark by the National Park Service, and in the same year Rachel Carson (1907–1964) sent a message of environmental destruction to the world in *Silent Spring* (1962) [20]. Residents of Concord were proud to be progressive environmentalists and were one of the first communities to ban DDT in the United States (1972).

C. Phase 3 (From 1972 to 1987): Rise of Environmental Awareness vs. Involvement of Public Agencies, Policy and Plan Makings and Public Inputs

Three new Commissioners in Middlesex County (W. Lester Ralph, John Danehy, Paul E Tsongas), elected in 1972, have proposed a bill to transfer the operation of Walden Pond from Middlesex County to Massachusetts [21]. Behind this is the social background that Growing social interest in the environment as President Nixon, who is known as a nature conservationist [22] following President Roosevelt, founded the Environmental Protection Agency in 1970, and created “Earth Day” on April 22, 1970, and the political influence of Mr. Tsongas (US Senator and US Presidential Candidate Paul Tsongas, later) who took the problems of Walden seriously and included them in his election pledge.

Known as an environmental activist, Tsongas believed that the responsibility for running WPSR should be transferred from the county to the state. To create a list of critical issues to solve the problems of Walden Pond, he appointed thirteen people as the WPSR Advisory Board, including Chairman Kenneth Barrett, who have been in the board from 1972 till present. The listed main problems were the destruction of the topsoil and trees on the lakeside and the excessive number of users. The causes and related problems included maintenance of the site, traffic regulation, and improvements as a historic site.

Later, seven of the WPSR Advisory Boards further formed the WPSR restoration committee to assist in the work of investigating and reporting on issues identified as critical. Imposed the task of initiating the process leading to the restoration. As a result, a report named “Walden Pond Restoration Study (WPRS)” was presented in 1974. This is the first specialized study of conservation in the Walden area, developed a long-term rehabilitation plan and program. A review of the actual operating system was proposed, and the importance of communication for that purpose was emphasized as follows.

Continuous dialogue is considered essential to restoration investigations. The need for public input and coordination between ministries is essential to a good planning process. In addition to this basic consideration, many, and often contradictory ideas and perspectives cannot be considered to develop a satisfactory long-term plan for Walden [23].

As an example of reflecting the above “public input” and the need for coordination between ministries and agencies in the actual mechanism, (1) When *WPRS* is completed, a town meeting was held. The contents were reported to the citizens of Concord and an opportunity to reflect Citizen’s opinion was provided. (2) Includes seven locals in Middlesex County among the 13 advisory board members stipulated in the WPSR Consignment Management Ordinance revised in 1974. (3) The 1988 revision of the ordinance stipulates that the 11 members should include 5 residents of Concord and Lincoln Town and representatives of these two local governments. The ordinance can be read as an attempt by the state government to create a mechanism.
to actively incorporate the voices of local officials and local owners into the operation of Walden Pond.

WPSR became fully state-run in 1975, and over the next 50 years, State of Massachusetts has implemented many of the projects envisioned in the 1974 WPRS. The main plans include limiting the number of users by limiting parking lots and repairing waterside erosion.

The WPSR Advisory Board has been transferred from the WP Board of Directors to the WP Advisory Board since 1975 after serving to advise the state on the management, development, and use of Walden. Until today, it also serves to convey the concerns of local citizens to the state.

This period was the first time in Walden's history that a physical restoration plan and a long-term conservation plan were made. Behind this is the social background in which the nature and environmental protection movements spread throughout the United States became matured. It was also a time when there was a growing awareness of the long-standing destruction of Walden, which is the cradle of the American environmental protection spirit. The Fig. 7 summarizes the social environment and the corresponding conservation activities during the phase 3.

Fig. 7. Summary of phase 3.

The initiative of Tsongas and others, who were elected to the new Commissioners of Middlesex County at this time, laid the cornerstone for organizing Walden's problems and formulating a systematic solution. As a result, a historic "Walden Restoration Survey Report", a long-term plan was created and put into practice. Public input was incorporated while trying out new management measures: identifying problems and proposing solutions.

D. Phase 4 (From 1988 to 2016): Suburbanization vs. WWP and Continuous Implementation of Conservation and Plan Makings and Public Inputs

Plans for the construction and land use of commercial facilities that could spoil the landscape in and around Walden Woods have been in place since the 1950s. In the 1980s, the boom in suburban real estate development in large cities was spreading and a private developer announced plans to build two large-scale commercial facilities in Walden Woods near Walden Pond (Figure.2).

Fearing that this would spoil Walden's landscape, a civic group protest was held at Concord's Town Center, and opposition by various local groups and individual activists spread. Some conservation activities are as below.

- **TCCA**: individuals or citizen groups who had been conducting various research and activities related to Thoreau and Walden gathered to form the Thoreau County Conservation Alliance (TCCA). (1988). As a result of the activities of TCCA, the scope of Walden Woods, which had been regarded as symbolic until then, was defined biologically as well as geologically, and registered with the National Trust for Historic Preservation as one of the 11 most endangered historic sites in the United States (1989). In addition, TCCA's media advertising activities covered more than 65 newspapers nationwide with articles on development plans and opposition activities in Walden and broadcasted on television.

- **Walden Woods Project**: The TCCA news spread to the west coast, and Rockstar Don Hanley, an environmental activist in California and an ardent follower of Thoreau, also became aware of this situation. The figure 8 summarizes the social environment and the corresponding conservation activities during the phase 4.

Fig. 8. Summary of phase 4.

Henry himself is also a loyal reader of Thoreau's Walden, saying, 'If we can't protect our Walden Woods, we're not eligible to sue to protect the South American forests', [24] and founded the nonprofit Walden Woods Project (WWP) in 1989.

Co-chaired by Senator Tsongas and environmental activist Michael Kennedy, WWP provided charity concert donations and public funding. It succeeded in stopping the construction of commercial facilities in Walden Woods by acquiring the land targeted for development through the Land Trust fund and a national fundraising call. WWP has continued to actively spearhead Walden Woods conservation efforts, reaching 80 percent of Walden Woods by 2016.

In the early days of its founding, WWP promoted conservation activities through aggressive fund-raising and purchasing activities, but in 1998, it established the Thoreau Institute that holds collections related to Thoreau and Walden collected by the Thoreau Society and Emerson Society for 80 years, and has expanded its activities to the transmission, education, and research of the spirit of nature and landscape stewardship.

- **Government and administrative activities**: The
Massachusetts state departments related to the operation of Walden Pond have changed from the “Department of Natural Resources” (DNR) in 1974 to the “Department of Environmental Management (DEM)” in 1988, and to “Department of Conservation and Recreation (DCR)” in 2003. Paying attention to the change in the names of the department, the keywords for landscape preservation policy have changed from “natural resources” to “environmental management” and “conservation and recreation” as the time changes. There are some noticeable federal and state-led research and reports on the historical and cultural implications and natural resources and landscape conservation of Walden Pond and Woods: “Walden Pond and Woods Special Resource Study (2002)” by the National Park Agency; “Concord reconnaissance report (2006)”; “Walden Resource Management (2013)” by DCR. What these research reports have in common is that the operations of Walden Pond and Walden Woods emphasize the balance between the two objectives of conservation and recreation.

- **Advisory Board**: The operation of WPSR through close communication between the state and the Advisory Board has continued until today since the 1970s. According to the record of the operation report of the WPSR Advisory Board, all matters from deciding the number of security staff in the field to the formulation of the operation budget are decided through vertical and horizontal communication. Even in long-term plans such as the relocation of roads that pass near Walden Pond, efforts are being made to incorporate public input by repeating multiple residents’ workshops and briefings.

WPSR advisory directors, persons in charge from the state departments, and operation staff are obliged to attend the committee meetings held mostly once a month during the year so that the situation at the site can be directly communicated from the local to the state government. The advisory board has worked closely with various stakeholders to deepen the ties between the state and the local community, while playing a role in communicating the voices of local citizens to the state. Members of the Advisory Board, unpaid long-time volunteers from Concord and Lincoln.

- **Grassroots activities**: In the latter half of the 1980s, active conservation activities began due to the rise of WWP. Various local stakeholders who had different goals and activities and sometimes conflicted with each other participated in the WPSR Advisory Board and worked closely with the state’s competent departments. Their activity continues to evolve from the anti-development movement to citizen-participatory conservation activities and propagating Thoreau’s legacy to the world. WWP plays a central role in those activities today.

Entering the 2000s, in Walden Pond and Woods, systematic on-site operation continues by close communication among stakeholders, aiming for a balanced operation that provides the functions of conservation and recreation of the historic natural landscape.

V. CONCLUSION

The history of Walden Pond and Woods is the history of various forms of conservation activities that seek to protect the significant cultural and historical landscape by corresponding to the changing socio-cultural environment. This study attempted to clarify the following factors that can provide with the step stones for cultural and historic landscape conservation.

1) **A common value of the place to empathy with**

In Walden, there was always a common conservation goal of “protecting Emerson and Thoreau’s Walden” as a centripetal force throughout the history. To protect and conserve a cultural and historic landscape, to create and share the empathy with the value of the place is an important factor.

2) **Diversity in stakeholders**

Various stakeholders such as individuals and groups, amateur and professionals, private and public agencies, local, and state, and federal government policies, and others have been participating in the conservation activities providing with philosophy, apposite movement, rules and policy making, advertisement, fund raising, academic research, volunteer activities to correspond the various, or sometimes threatening socio-cultural environment.

3) **Long-term and systematic conservation plan with both government and citizen’s participation**

Since the first systemic plan started in 1970’s, for over fifty years, the Walden restoration plan has been continually implemented to achieve a balanced conservation with government and citizen participation.

Although the history of conservation activities in Walden Woods and Pond is organized chronologically in this paper, each conservation activity took place in different time in the history of Walden may be provided as a reference and implemented independently in elsewhere facing the similar socio-cultural environment.

**CONFLICT OF INTEREST**

The authors declare no conflict of interest.

**AUTHOR CONTRIBUTIONS**

W. Chung conducted the main research and wrote the paper; W. Chung and A.Higuchi conducted the field works; A. Higuchi provided academic advice; all authors had approved the final version.

**REFERENCES**


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