

## **Return to your Roots:**

### **A Feasibility Study of a Natural Burial Ground on Prudence Island, Rhode Island**



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## **Abstract**

For all of history humans have had to find ways to dispose of their dead, as one of life's certainties is death. In the past few decades, the United States' death landscape has begun to change as people have grown more environmentally conscious. The natural burial movement is a response to this change in thinking and has become quite popular. This thesis examines the possibility of opening a natural burial ground on a small island community in Rhode Island. It takes a 3-pronged approach, looking at the legal, ecological, and community aspects of the project's feasibility. Interviews, community outreach, and surveys were the primary methods used in order to accomplish this. The results show that a project like this is feasible with community support and the right piece of land.

**Keywords:** Green burial; Conservation Burial; Island Communities; Sustainability; Survey

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## **Introduction and Overview**

Throughout all of human history, the question of how to properly bury our dead has been asked. For the past hundred years in the United States, funeral homes and cemeteries have served their function, however a new trend is emerging. It has grown along with the rise of environmental awareness era and is changing the way we think about burying our dead.

The natural burial movement began in the early 1990's in England, but has increased in size and scope. It now spans all of the United Kingdom and parts of the United States, Canada, and New Zealand. It is a response to the knowledge that current funeral industry practices and standards are polluting the earth and are unsustainable. While there are no strict universal standards regarding its practices, natural burial tries to leave as little impact on the landscape as possible. Commonly, the bodies are buried in biodegradable coffins or shrouds and are not embalmed. Grave sites are marked using natural features such as trees, shrubs, or rocks and low-input landscaping techniques are used that will eventually allow the land to return to its original state, whether that be a woodland or meadow.

While the scope of research on natural burial is growing, it is by no means all-encompassing. Information about how people feel about natural burial, the steps to open a natural burial ground, and the success of natural burial grounds is dispersed, but slowly becoming available to the public. More case studies need to be created, and at differing locations, if the natural burial movement is to reach maximum public awareness. This is important because literature has shown that natural burial is favored by many people once they become aware of it.

This thesis aims to provide a concrete case study for natural burials in Rhode Island, a state that does not currently offer them. I approached my research from a three-pronged perspective. I wanted to assess whether a natural burial ground would be a legal venture, whether there is a suitable piece of land on the island, and whether or not the island community would want a natural burial ground on their island. In analyzing the results from the legal, ecological, and community aspects, the study's conclusions give a concrete answer as to whether or not a natural burial ground could be placed on the island, but also a broader look into why people in general would either favor or disapprove of natural burial grounds.

I have been a summer resident of Prudence Island, Rhode Island for my entire life and my family has been a part of the community for generations. There is currently interest on Prudence to start a new cemetery for the islanders. I used these people as my contacts to help

with my educational outreach, site investigation, and with surveying popular opinion. My work in doing this thesis will further their efforts as it will provide the ecological and legal background information necessary to implement such a project and gauge the level of interest of island residents.

## Literature Review

### Overview

Natural burial is not a new concept—it was the way some groups of people buried their dead for almost all of human existence. This literature review outlines the history of burial practices in America and gives reasons why customs have changed throughout the years, including why people are returning to this age old method.

### History of Burial Practices in America

What makes humans distinct from most other animals is our awareness of death. Since the beginning of human history, rituals have been accompanying this fact of life. The earliest known ritual regarding death was unearthed in Shanidar cave in Iraq; a Neanderthal man dating from 60,000BC was found with animal antlers and flower fragments surrounding his body (The Funeral Source, 2014). The importance of having a proper burial ceremony for the dead was a major component of every ancient culture (Mark, 2009).

As noted in *The Interpretation of Cultures* by anthropologist Clifford Geertz, “death and its rituals not only reflect social values, but are an important force in shaping them” (Jackson & Vergara, 1989, p. 3). This concept has been applied to the study of the evolution of American cemeteries. For example, Francaviglia (1971) views cemeteries as miniaturizations and idealizations of larger American settlement patterns and Francis et al (2000) believes that cemetery landscapes can be studied to identify cultural patterns. Similarly, Jackson and Vergara (1989) argue that American cemetery architecture is one of the best ways to reveal society’s views as cemeteries mimic religious and cultural beliefs about death and the social structure of the living.

The first burial plots of early European settlers in America were located in church graveyards, farmers’ fields, or in potter’s fields, depending on a person’s location and religious affiliation (Jackson & Vergara, 1989). However, between the Revolutionary and Civil Wars, the cemetery landscape changed. Church graveyards evolved into cemeteries located outside of city boundaries. Sloane (1991) attributes this to the atmosphere of the Revolution— the colonial church graveyards reflected older ideas and were now unacceptable. Jackson and Vergara (1989) note that public views of graveyards shifted as they became overcrowded, smelled bad, had a disheveled look about them, and were feared because of the disease they might carry.



The first modern cemetery was Grove Street Cemetery in New Haven, Connecticut, which was founded in 1797 (Friends of the Grove Street Cemetery, Inc., 2015). Differing from previous burial places, this cemetery was the first to be owned by an association not affiliated with a church and with the sole purpose of taking care of the area (Sloane, 1991). This was also the first cemetery to have a planned, grid-format with family sections, instead of arranging the headstones by date of death as done previously (Jackson & Vergara, 1989).

The next stage in the evolution of American cemeteries took the form of the “garden cemetery” or “rural cemetery”. In 1831, Mount Auburn Cemetery in Cambridge, Massachusetts, became the leading example in this movement (Jackson & Vergara, 1989). Garden cemeteries were inspired by Victorian age romantic ideals (Potter & Boland, 1992) and were designed to house the dead in addition to being a place for the living to come and enjoy nature with their picturesque landscapes, sculptures, winding paths, and many plant varieties (National Parks Service, 2015).

According to Sachs (2013), garden cemeteries brought key elements of the countryside into the rapidly growing cities, something that people needed. Feinman (2014) connects these cemeteries to a burgeoning need for people to have a space to become spiritually connected to the land. Others note that it was the romantic theme of the melancholy of death that made visiting these garden cemeteries so popular (Potter & Boland, 1992). It is well known that these garden cemeteries, America’s first large-scale public open spaces, became so prominent and fashionable that they inspired the American parks movement and the professionalization of landscape architecture (Jackson & Vergara, 1989).

Once garden cemeteries became clustered with headstones and parks without the dead, like Central Park in New York City, were created, visitors to garden cemeteries decreased (Jackson & Vergara, 1989). With the close of the Victorian Era, the style of cemeteries changed modernity demanded efficiency. Cemetery designers during the mid to late 1800s began streamlining and making the landscape more uniform for profit (Sloane, 1991).

This style of cemetery is known as the memorial park or perpetual care lawn cemetery. These cemeteries are designed around a lawn plan system that can easily be maintained and viewed. Monuments are deemphasized and standardized markers, often low to the ground, are stressed (Potter & Boland, 1992). The memorial park’s popularity gained momentum during a time in American history when people began distancing themselves from death, as public

hospitals and the funeral market developed, a trend that has continued to today's times (Sloane, 1991). Jackson and Vergara (1989) attribute the rise of memorial parks to Americans losing interest in cemeteries and monuments. Searcy (2014) believes that this loss of interest is due to the fact that the relationship between the living and the dead is becoming increasingly distant as American culture has turned over control of the dead to medical experts, funeral professionals, and municipal governments. Francaviglia (1971) credits this to the rise of the middle class and the decreased relation to death in contemporary society.

During the 1970s and 80s, many cemeteries fell into disrepair and, with the rise of cremation, were seeming to become pointless. Jackson and Vergara (1989) state that, "American cemeteries seem anachronistic and irrelevant. To many, they occupy valuable space which could be put to better use. To others, they are almost invisible. They are unvisited, unloved and unimportant" (p. 97). Sloane (1991) agrees that cemeteries have less cultural value than they did 100 years ago. Historic cemeteries faced years of vandalism, neglect, and a deteriorating donation base, resulting in unsafe atmospheres (Headstone happenings, 2007). For example, in the 1980s Spring Grove Cemetery had become one of the most dangerous places in Hartford, Connecticut (Jackson & Vergara, 1989).

However, the 1990s brought a resurgence in the use of cemeteries. Cemeteries began to be used for outdoor recreation, like they once were, as people sought out natural spaces. For example, Mount Auburn cemetery decided to make the natural landscape a priority during the 1990s by restoring native species, practicing sustainable groundskeeping, and by participating in the growing natural burial movement (Williams, 2014). In 1996 Spruce Knoll, a woodland garden, was founded on their property (Mount Auburn Cemetery, 2015). This newly found pro-environmental aspect of American society is being closely watched by funeral directors today. According to Mark Harris, author of *Grave Matters*, the growing trend will be the most significant change to funeral practices since cremation and the funeral industry is trying to figure how to make it financially practical (Miller, 2009).

### Burial Practices in America Today: The Current Funeral Industry

For almost a hundred years Americans have been handing their dead over to the care of an industry that's turned the funeral into a too standards, expensive, resource-intensive, and for too

many families, sterile act. The modern funeral has become so entrenched, so routinized, in fact, that most families believe it's all but required when death comes calling (Harris, 2007 p.47)

When someone dies in today's society, a small drama involving the death- work professionals, the grieving next of kin, and the body is set into motion (Bradbury, 1999). The next few days are filled with the hustle and bustle of planning. The undertaker, funeral home, funeral director, florist, newspaper obituary department, church, casket, cemetery, and caterer all must be coordinated. While most of the decisions are given by the funeral director, choices regarding whether to embalm or not and what kind of service and casket is wanted still have to be made by the grieving. As Bradbury (1999) states: "When arranging to dispose of the corpse bereaved people find themselves shopping" (p.72). There are many different makes and models of caskets, flowers, and services to choose from, since all members of the funeral industry are concerned with making money (Bradbury, 1999), the pressure to choose the priciest is always present.

The U.S. funeral market is estimated to be a \$20.7 billion per year industry. A typical funeral costs between \$8,000 and \$10,000 (American Documentary, Inc., 2015), with the casket often being the single most expensive item, ranging in price from \$2,000-\$10,000 (The Federal Trade Commission, 2012). With the number of elderly increasing in the coming decade, the industry is expected to grow at an annual rate of 2.6% (National Funeral Directors Association, 2015).

Studies have shown that the funeral industry is not always transparent—the price of certain funeral services does not always reflect their value. Caskets, for example, on average have a mark-up of 289% from wholesale to retail (Boring, 2014). In addition, many consumers purchase a sealed casket because of the perceived level of protection they give, but it is known that any protection will eventually fail due to the natural decomposition process (Harris, 2007). Furthermore, while no federal law requires a body to be embalmed and most states do not either, many funeral homes embalm deceased people because it is perceived by consumers to be a necessity. In reality, the practice of embalming primarily only serves the monetary gain of funeral homes because they can add roughly \$3,000 to the price of the funeral (Funeral Consumers Alliance of Southern California, 2015).

### Environmental Consequences of the Current Funeral Industry

Researchers are beginning to look into how the current funeral industry practices are polluting the environment unnecessarily. It has been shown that fluids from the embalming process can contaminate local waterways. This funeral home waste, which can contain whole blood, fecal matter, liberated contents of internal organs, and carcinogenic chemicals (Harris, 2007) is not regulated federally or across entire states and is commonly flushed into local sewer systems or septic tanks (Funeral Consumers Alliance of Southern California, 2015).

Formaldehyde—the main embalming chemical— has been studied and shown to be dangerous. It has been classified as a human carcinogen by the International Agency for Research on Cancer (Colmane, 2010). A study by Holness and Nethercott (1989) discovered that embalmers reported dyspnea, chronic bronchitis, and nasal, eye, and skin irritation more frequently than the general population.

Multiple studies have shown that anything buried underground can eventually leach into the surrounding soil which adversely affects its health. Spongberg and Becks (2000) found arsenic and mercury in their old cemetery field site. They also found traces of metals commonly used in the manufacturing of caskets: zinc, copper, lead, and iron. A consumer report from 1977 showed that the contamination effects were even greater in soils with a low pH (Spongberg & Beck, 2000). Harris (2007) explains that the metals pose a risk not just when they are buried and allowed to leach in the soil, but are also dangerous in the manufacturing stage— the major casket manufacturers always make the EPA’s list of each state’s top fifty hazardous waste generators because they release methyl, xylene, and other regulated chemicals into the atmosphere.

Studies have also pointed out that the sheer amount of material needed to support the number of dead in the United States is unsustainable for the environment. Britain’s Centre for Natural Burial estimates that over a million gallons of embalming fluid is buried in North America every year (as cited in Platoni, 2008). Joe Sehee, the executive director of the Green Burial Council, argues that “we bury more metal each year in caskets than what was used to build the Golden Gate Bridge, and bury enough reinforced concrete each year that we could build a two-lane highway from New York to Detroit” (as cited in Platoni 2008 p.1). Harris (2007) adds that casket manufacturing uses 45 million board feet of lumber every year, enough to fully build more than 3500 homes.

### The Natural Burial Movement

The natural burial movement is a response to the growing environmental, economic, and social concerns of people. Originally known as ‘woodland burial’, and also known as ‘green burial’, ‘ecological burial’, and ‘conservation burial’, the natural burial movement has been attributed to a man named Ken West who was head of Carlisle Bereavement Services in Carlisle England (Clayden, 2004). West thought of the woodland burial concept in 1991 when he was talking with two elderly women who were unsatisfied with the current burial options. His reckoning was that natural burial would solve many of the problems that UK burial grounds were facing such as costly maintenance fees for graves that were no longer visited (Clayden & Dixon, 2007). The grounds would also be able to provide habitat for wildlife and re-create the native woodland that once dominated the region (Clayden, 2004).

West took this idea and created a feasibility plan which he submitted to the Carlisle town council. In the plan, he proposed a woodland burial that consisted of biodegradable coffins or shrouds, tree-memorials planted on every grave, ecological use of facilities, and low-input landscaping techniques that eventually would allow the landscape to return to its natural state. The feasibility plan was passed and 96 plots were newly designated for “woodland burial” interment. By the fourth year of operation, 35% of the cemetery’s new burials were located in the woodland section by request, making the venture a viable and profitable project. Quickly thereafter, a number of natural cemetery projects sprang up all across the United Kingdom, hoping to improve their economic situation, the environment, and customer appeal (Beal, 2009).

It is thought by Clayden et al. (2010) that there were two contributing factors to how popular the natural burial movement became: John Bradfield’s “*Green Burial: The D-I-Y Guide to Law and Practice*” and the 1993 Natural Death Centre’s “*The Natural Death Handbook*” which raised public awareness about the topic. And the movement did spread rapidly. Over the last 24 years, 270 natural burial grounds have been established in the United Kingdom alone (the Natural Death Centre, 2015). In the United States, the number of natural burial grounds has risen to over 100 from the first which was established by Billy Campbell in South Carolina in 1998 (New Hampshire Funeral Resources, Education, & Advocacy, 2015). Organizations that attempt to regulate natural burial grounds and get information to the public have formed along with the expansion. In the United Kingdom, the Association of Natural Burial Grounds (ANBG) was established by the Natural Death Centre in 1994 (The Natural Death Centre, 2015). In the United

States, the Green Burial Council was formed in 2005 which established the nation's 1<sup>st</sup> certifiable natural burial standards (Green Burial Council, 2015).

In the beginning stages of the Natural Burial Movement, the expansion of the cemeteries were mainly accomplished by ones that were publically owned and operated as they were able to extend their already existing infrastructure to hold a space for natural burial (Clayden et al., 2010). However, time has shown that local authorities in the public sector do not do as well as others who have opened natural burial grounds because of their close proximity to traditional grave sites (Davies & Rumble, 2012). People want a separated designated space just for natural burial. Some people attribute this to the desire to escape from modern life and as a resurgence of eighteenth century romanticism (Clayden & Dixon, 2007).

In recent years the opening of natural burial grounds has been dominated by farmers, charitable trusts, independent landowners, and private companies (Clayden, Green, Hockey, & Powell, 2015). While each type of person has different reasons why they want to open a natural burial ground, they all see natural burial as a legal and financial tool that helps conserve open space and a way to stop the intensive practices associated with today's conventional funerals (Platoni, 2008). In addition, it has been noted that other reasons why people might choose to open a natural burial ground are seeing: "a perceived change in public demand as witnessed by media interest in natural burial and the development of a burial style that appears relatively simple to implement and manage" (Clayden et al., 2010, p. 121).

### Types of Natural Burial Grounds

There is a lack of clear government regulation in regards to establishing and maintaining a natural burial ground. The Federal Trade Commission has not yet set standards or regulations, which means that definitions can vary across funeral homes (Barlow, 2011). Laws regarding burial vary by state, town, and individual cemetery. Therefore, each natural burial ground opened is unique in its practices, regulations, location, habitat, and community (Clayden, Hockey, & Powell, 2006). A study done by Clayden and Dixon (2007) revealed that management policies were shaped by each site's consumer demands as well as their environmental objectives. This has resulted in the original woodland setting model evolving to suit wildflower meadows, orchards, woodland pasture, and mature woodlands (Clayden et al., 2010).

While there is no universal set of regulations that are mandatory for all natural burial grounds, organizations such as the Green Burial Council, Natural Burial Association, and the Association of Natural Burial Grounds have identified requirements that they deem essential to be certified under their authority. There are consistencies between the organizations' certification guidelines. Typical natural burial practices frequently include: (1) not embalming the body, (2) having the body be contained in biodegradable shroud or casket, (3) having no headstones to mark graves, but rather using natural materials such as trees or shrubs or no marking at all, and (4) no mechanized machinery being allowed on the land, therefore graves are dug by hand and there is no mowing of grass (Goldman, 2013). Some locations keep track of where they bury their dead by burying a signaling device with the body that can be found with a GPS receiver (Platoni, 2008). The overall goal of natural burial would be to have the land reverted back to its normal state of being, whether that be forest, meadow, or pasture (Harris, 2007). Because the approaches to Natural Burial can be so broad, Clayden (2004) warns that each burial ground manager needs to be very explicit about what is and what is not allowed at their own location.

Common traits have been found even amongst burial grounds that are not affiliated with a natural burial organization. As Clayden et al. (2010) found in their study, the habitat the owners sought to create was at the core of the design plan and that identity played the biggest role in determining its ecological processes. Platoni (2008) found that the goal of each site was to make the natural process of death a less resource-intensive and more natural process.

When the natural burial movement began, simplifying the cost and management of grave sites was one of the main lures. However, in recent years a growing trend has emerged in which people are offering more costly services (Clayden, 2004). This has come about because the funeral directors and casket manufacturers see natural burial as a new market. For example, in 2007 the magazine of the National Funeral Directors Association featured an article titled "Margins Lean? Consider Green". Also, Passages International makes a \$1,600 woven willow casket and sells a \$300 cremation urn made of 'Himalayan Rock Salt' (Shishkin, 2009). This however, is not what the original founders of natural burial had in mind.

### Opinions and Motivations of People Who Choose Natural Burial

Natural Burial has developed as a response to shifting attitudes about death (Clayden & Dixon, 2007) as well as a way to address the challenges of: a growing population and increasing

cemetery maintenance costs, environmental degradation, and a public request to have a more simple and less-costly alternative (Clayden et al., 2015). In assessing why people chose natural burial, Davies and Rumble (2012) found in their study that “environmental, romantic, family, aesthetic, consumer, and religious-spiritual values are all evident, even though no two people will share all of them” (p.58). Some say that this movement, with its connection between nature and grief, can be seen as a resurgence of eighteenth century romanticism in which people looked to break free of modern life and its limitations (Clayden & Dixon, 2007; Prendergast, Hockey, & Kellaher, 2006).

Nevertheless, it has been made clear by research that natural burial grounds are very different than traditional cemeteries. Clayden et al. (2010) feels like its uniqueness lies in the interactions between the ground’s physical and social landscapes. “A natural burial ground is unlike a cemetery with its singular mortuary purpose, separated off from both everyday life and other life course transitions. Instead...it has connections with a broader range of...experiences” (p.135). Davies and Rumble (2012) feel that it is the freedom that comes with natural burial—a freedom that allows the living to think about how they can engage with the dead through landscape— that makes natural burial so popular. Walter and Gittings (2010) found similar results. In their research they discovered that, for their interviewees, choosing the grave site, digging the grave, and having friends and family arrange the ceremony, play the music, and speak at the ceremony was the best part.

#### Case Study Location: Prudence Island, Rhode Island

Prudence Island is a roughly 7 mile long and 1.5 mile wide island located in the middle of the Narragansett Bay (NEMBA, 2015). It is only accessible by boat or ferry and has approximately 150 year-round residents. Most people come to the island during the summer, where the population peaks at around 1,500 (Prudence Island School Foundation, 2014). Oftentimes these visitors come to see family, friends, or are renters. There is one general store, one public restroom, no overnight accommodations, and many of the roads are not paved (NEMBA, 2015). Many describe Prudence Island as a secluded and peaceful spot (Braccidiferro, 2002) and characterize the atmosphere as slow-paced and solitary (Plain, 2013).

The historical use of Prudence Island has also been seasonal. The Native Americans of the region used the island as a summer fishing spot. In 1637, Roger Williams and Governor John



Winthrop of Massachusetts bought Prudence Island from the Native Americans and farming became the main use of the land for years to come. Prudence Park was established on the west side as the first summer resort on the island in 1875. There, a steamboat would drop off people on its passage from Newport to Providence. By the 1930s the Inns had closed as the people who liked the island built their own cottages to live in. By 1946 there were roughly 1,500 seasonal residents in about 300 cottages around the island (Narragansett Bay National Estuarine Research Reserve, 2009).

During World War II, the south end of the island was converted into an ammunition dump for the U.S. Navy. Their infrastructure, such as paved roads and army bunkers, is still found today. In 1980, the Navy property was given to the state of Rhode Island as a part of the Federal Lands Park Program. Today, the land is home to the Narragansett Bay Research Reserve. 70% of the island's land has been preserved or protected from development over the years which reflects the islanders' values of maintaining land for low-impact outdoor recreation (Narragansett Bay National Estuarine Research Reserve, 2009).

## Methods

### Research Design

My research objective was to determine if there could be a natural burial ground on Prudence Island. I broke this objective up into three tangible categories: legal, ecological, and community.

For the legal portion of my research, my objective was to see if it is legally possible to have a natural burial ground on Prudence Island. To do this, I had to research the laws of the town of Portsmouth, which Prudence Island is a part of, and the state of Rhode Island. I researched the laws regarding burial, cremation, cemetery grounds, private land burial, and what to do when someone dies in Rhode Island using mainly websites and also by calling the Rhode Island Department of Health. I also called the Portsmouth town planner, as the town planner is the person in charge of all zoning regulations. I asked him questions about the current parcel zoning regulations and if any burial ground laws exist. I then asked if there would be any barriers, restrictions, or hurdles to a natural burial ground being created within the Portsmouth town borders

For the ecological component of my research, my objective was to see if there was a piece of land suitable for a natural burial ground on Prudence Island. To do this I started a conversation with the Prudence Island Conservancy, a group that owns large sections of land on the island and whose goal is to preserve the unique character and beauty of the island. I sent in my thesis proposal and a written statement that was read at their May 2015 meeting in order to be able to make a presentation at their June 2015 meeting (See Appendix A. for statement read at May meeting). During this June meeting, I talked to the board members to gain access to the maps and conservation easements which gave me the information as to where the best parcel of land for the natural burial ground would be. We also discussed possible concerns or barriers that might arise when creating a natural burial ground.

For the community section of my research, my objective was to see if the residents of Prudence Island would be open to having a natural burial ground on the island. I did this in two separate ways. The first way was having a table set up at the Prudence Island Conservancy's annual Ice Cream Social with information about my project and a short four question survey. The second way was through posting a website and questionnaire that I created onto Facebook as

well as a listserv for the Narragansett Bay Research Reserve. Alice Fothergill of the University of Vermont Sociology department and Alan Howard from the University of Vermont Library helped me with the survey format.

I also interviewed two natural burial ground representatives and one hybrid burial ground representative in order to get a better picture of what creating a natural burial ground entails (See Appendix B. for the set of questions I used during the interviews). I phone-interviewed Jennifer Johnson from Greensprings Cemetery in New York, Carol Coan from Cedar Brook Burial Ground in Maine, and Andrea Mitchell from Meetinghouse Hill Cemetery in Vermont. Each interview took roughly a half hour.

### Ethical Issues

All survey results were collected anonymously, so there is no risk for identification issues to arise.

### Limitations

The limitations of this methodology are mainly that all residents of Prudence Island did not participate in the survey. The first four-question survey was done during a normally-high attendance event, but the Ice Cream Social of August 2015 saw less people than usual and not all of the people who attended came over to my table. The online survey was sent out over the winter and many people who are residents on Prudence Island might not be members of the Narragansett Bay Research Reserve's listserv or may not be a member of the Prudence Island Facebook group. However, I feel that capturing everyone who is related to Prudence Island in any survey would be extremely hard as people vary in the length and season of their stay. Also, other people may have a strong opinion about natural burial on the island, but have not actually been to Prudence Island for years.

Another limitation could be the format of the two different surveys. The questions might not have accurately captured, in the manner most appropriate, the ways in which Prudence Islanders think about natural burial.

## Results

### Legal

#### ***Rhode Island Laws:***

Personal communication with the Rhode Island Department of Health on September 23, 2015 indicates that the state of Rhode Island does not regulate cemeteries, but rather, it is up to individual towns. Rhode Island General Laws outline some restrictions a town may give. Section 23-18-10 states that the town council of a town may prohibit burials in thickly-populated areas of the town and can make any bylaws and ordinances related to burials and the use of grounds for burials in the town that they think may be necessary for preserving the health of the town (State of Rhode Island General Assembly, 2015).

There is no Rhode Island law that requires a casket for burial or a law that says where you can keep or scatter ashes (Irving, 2016). However, there are some rules and regulations surrounding human remains. According to section 13.2 of the Rules and Regulations Pertaining to Embalmers, Funeral Directors, and Funeral Service Establishments, human remains cannot be held for more than forty-eight hours without either embalming or refrigeration. Additionally, in section 13.12 of the same regulations it states that human remains that have to be transported by a common carrier, such as an airplane or train, have to be embalmed. If that is not possible, the body has to be transported only after it is enclosed in a strong, sealed, outer case (Rhode Island Department of Health, 2012).

#### ***Portsmouth Town Laws:***

Personal communication with the Portsmouth Town Planner on June 10, 2015 revealed that in order to create a natural burial ground a person would need to consult Article 7 of the Portsmouth Town Zoning Ordinance, the section on special use permits. In order to get the natural burial ground approved, a well-thought out proposal would have to go to the Zoning Board of Review, which looks after the health, safety, and welfare, of the community. According to Article VII-2 of the Zoning ordinance, the Zoning Board of Review will see that the proposal fits the following criteria: a) the desired use will not be detrimental to the surrounding area, b) it will be compatible with neighboring land uses, c) it will not create a nuisance or a hazard in the neighborhood, d) adequate protection is afforded to the surrounding property by the use of open space and planting, e) safe vehicular access and adequate parking are provided, f) control of noise, smoke, odors, lighting and any other objectionable feature is provided, g) solar rights of

the abutters are provided for, h) the proposed special use will be in conformance with the purposes and intent of the comprehensive plan and the zoning ordinance of the Town of Portsmouth, and i) the health, safety and welfare of the community are protected. Once the special use permit is approved, the natural burial ground would have to start being created within one year.

***Overview of findings:***

There seems to be no significant legal hurdles to overcome in order to create a natural burial ground on Prudence Island. The state of Rhode Island does not regulate cemeteries, so the creation of the natural burial ground would only fall under Portsmouth town regulation. In order for the town of Portsmouth to approve the natural burial ground, a special use permit would have to be obtained, the land would have to be surveyed, and a well-thought out proposal would have to be submitted and presented to the Portsmouth Town Zoning Review Board.

Ecological

***Talking with the Prudence Island Conservancy:***

I gave a 10 minute presentation about my thesis to the seven members. I described what natural burial was, the research I had done so far, and why I wanted to talk at the Ice Cream Social. From the beginning this was all framed as hypothetical and a learning experience for me. Some of the board members seemed interested while others had more questions and seemed skeptical. I was approved to have a table set up at the Ice Cream Social. I was also given copies of the deeds and maps to land parcels that were already zoned to possibly become a cemetery (See Appendix C. for the map that I received). I was asked to write something for their newsletter to let everyone know that I would have a table at the social this year (See Appendix D. for my write-up for the newsletter).

***The Land:***

The majority of the land parcels are in forested oak and red maple areas of the Eastern side of Prudence Island. There is one parcel on the western side of Prudence Island which is primarily a mowed-lawn field. (See Appendices C and E for maps)

***Overview of findings:***

There appears to be pieces of land readily available for the use of a natural burial ground. The Prudence Island Conservancy owns land deeded to them by the non-profit organization

Preserve Rhode Island in which the deed states that the land could be used and developed for low intensity uses for the public benefit, such as a cemetery.

## Community

### Part 1: Ice Cream Social Event

#### ***Preparation:***

In order to prepare for the Ice Cream Social I familiarized myself with the conservation deeds, created a map of the land parcels that were zoned for cemetery use using the ArcGIS program, created a sign-up sheet for people, printed out pictures of what natural burial grounds looks like, printed out sections of my literature review, and created a four question survey to get anonymous feedback as to whether or not people favored the idea of a natural burial ground being created on Prudence Island (See Appendices E-G).

I set up a table at the ice cream social with my map, sections of my literature review, the sign-up sheet, the pictures, the questionnaires, and a box to put the questionnaires in. I sat at the table for about 1 ½ hours talking with anyone who came up to me. I introduced myself and my project with a spiel something like this:

Hi Im Lauren and I'm working on a thesis project about natural burial grounds through the University of Vermont. A natural burial ground is a type of burial ground in which, typically, headstones are replaced with tree species or rocks, you're buried in biodegradable caskets or shrouds, you're not embalmed, with the goal of eventually returning the land to its original state. Here is a map of land on the island that is actually already zoned for some sort of cemetery use and here are pictures of what some example natural burial grounds look like. I would really appreciate if you could fill out this questionnaire with its few questions to get a sense if having a natural burial ground on the island would be something that people would be interested in and feel free to sign your name on the sign-up sheet. Check the first box if you'd like to stay informed with the updates on how my thesis is going and check the second box if I would be able to contact you to ask your opinions about this topic and why you have them.

#### ***Overview of findings:***

In general people liked the idea of a natural burial ground on Prudence Island. 22 out of 24 (92%) said that they are interested in having some sort of burial ground on Prudence Island and the same number of people are supportive of having graves be marked with native tree species versus headstones. However, there was a lot of backlash surrounding the piece of land on the West side of the island that is zoned for possible cemetery use. It is currently used by the

neighborhood children and the community that lives in that area would not want it to become a natural burial ground. (See Appendix H for full collected data).

### Part 2: Website/ Online Survey

#### **Website Preparation:**

The website that I made, “Natural Burial Ground Feasibility on Prudence Island” ([blog.uvm.edu/ljenness-nbg](http://blog.uvm.edu/ljenness-nbg)), was created using Wordpress software available to University of Vermont students. In addition to an introduction page which gave the survey link and a brief introduction to what natural burial is (See Appendix I. for this webpage), I added a page for my literature review and also a page for links to more information. The links were all videos that I found on YouTube that I felt accurately represented what I found in my research doing my literature review (See Appendix J. for this webpage).

#### **Online Survey Preparation:**

The survey I made “Natural Burial Ground” was created using REDCap software that is available to students at the University of Vermont. I gained access to the program from Diantha Howard who works at the University of Vermont. The survey consisted of up to 14 questions, up to 11 being about natural burial and three being identifier questions. There was survey logic built into the questionnaire, so some people taking the survey did not have all of the questions given to them based on their previous answers. I phrased the questions in a relaxed, friendly manner because I am a part of the community and did not want to make anyone feel uncomfortable about the topic or hesitant to answer a question. I built survey logic into the survey and made sure to add many places where people could leave written feedback so people taking the survey could participate in it as little or as much as they wanted.

#### **The Questions:**

1. Have you heard of the term "natural burial", "green burial", or "conservation burial" before looking at the website?
  - a. Yes
  - b. No

*I asked this question to learn if natural burial is a new topic for the survey participants or something that they have heard about before.*

2. After reading the description on the website, how do you feel about the concept of natural burial?

- a. I really like the idea of natural burial
- b. I kind of like the idea of natural burial
- c. Neutral
- d. I kind of don't like the idea of natural burial
- e. I do not like the idea of natural burial

*I asked this question to see how favorably people perceive natural burial to be. I asked this question in relation to the description on the website to make sure that everyone answering this question would be basing their answer off of the same description of natural burial.*

3. Which of the following are reasons why you like natural burial? (select all that apply)

- a. They are less polluting to the environment than traditional burial because there is no embalming
- b. They are less destructive to the environment than traditional burial because they aren't as resource-intensive
- c. They are less expensive than traditional burial
- d. They use natural features such as trees, plants, or rocks to mark graves vs headstones
- e. They ensure land conservation
- f. They allow the land to return to its natural state
- g. I have another reason why I favor natural burial that I would like to mention

*This question showed up on the survey if the person picked choice A,B,or C, D on question #2. I did this because I did not want people who did not like natural burial to have to look at questions about why people could like natural burial. Letters A-F gave the participants ways to frame natural burial if they were not too familiar with the topic, but letter G gave the participants an option if they had their own reason why they liked natural burial that they wanted to say.*

4. Which of the following are reasons that you dislike the idea of natural burial? (select all that apply)

- a. I like the idea of embalming, which isn't an option with natural burial



- b. I like the look of traditional cemeteries with the headstones and manicured lawns
- c. I like the caskets associated with traditional burial rather than a biodegradable casket or shroud that's used in natural burial
- d. I don't like another aspect of natural burial which I would like to mention

*This question showed up on the survey if the participant chose choice B, C,D,or E on question #2. I did this because I did not want people who really liked natural burial to have to look at questions about why people did not like natural burial. Letters A-C on this question gave participants options as to why they would not like natural burial and favor conventional burial, but letter D gave them the opportunity to write in an answer if they did not like natural burial for another reason I did not mention.*

5. Would you be in favor of having a natural burial ground on Prudence?

- a. Yes
- b. No
- c. Unsure- I would need more information in order to decide

*This question got to the root of what I wanted to know based on the social objectives of my project. The question was asked of everyone who participated in the survey.*

6. If there was a natural burial ground on Prudence Island, what type of access do you think would be appropriate?

- a. I would want the natural burial ground to be right off of a road, easily accessible by car
- b. I would want the natural burial ground off in the woods, accessible by a trail
- c. It Doesn't matter to me

*This question was asked in order to provide some information to the Prudence Island Conservancy about where the participants imagine the natural burial ground to be. This question was only shown to the participants who wanted to be asked questions about what type of natural burial ground they would want on Prudence Island.*

7. If there was a natural burial ground on Prudence Island, would its proximity to houses be of concern to you?

- a. Yes
- b. No

*This question was asked in order to provide information to the Prudence Island Conservancy about where the participants of the survey imagine the natural burial ground to be. This question was only shown to the participants who wanted to be asked questions about what type of natural burial ground they would want on Prudence Island. There was a space to write-in why a natural burial ground's proximity to houses would be of concern.*

8. If there was a natural burial ground on Prudence Island, what type of landscape do you think would be appropriate?

- a. Forested/ woodland
- b. field/ meadow
- c. a combination of forested/woodland and field/meadow
- d. Other

*This question was asked in order to get an idea of what the survey participants saw as the best type of landscape for a natural burial ground. This question was only shown to the participants who wanted to be asked questions about what type of natural burial ground they would want on Prudence Island. If someone chose letter D, they were given space to write-in what type of landscape they thought would be appropriate for a natural burial ground on Prudence Island.*

9. What type of marker do you think would be most appropriate in a natural burial ground on Prudence Island?

- a. native tree or plant as a living memorial
- b. any tree or plant as a living memorial
- c. a rock / fieldstone which would have the option of engravement
- d. no marker
- e. It wouldn't matter to me
- f. Other

*This question was asked in order to gain insight into what type of marker the survey participants would want for the natural burial ground on Prudence Island. This*

*question was only shown to the participants who wanted to be asked questions about what type of natural burial ground they would want on Prudence Island. If someone chose the letter F, they were given space to write-in what type of marker they would want in the natural burial ground.*

10. What is your age?

- a.18-25      b. 26-35      c. 36-45      d.46-55      e.56-65      f.66-75  
 g.76-85      h. 85 and up

*This question was asked as an identifier question and asked of all survey participants. I was curious to know if age played a role in determining people's liking or disliking to natural burial.*

11. What is your gender?

- a. Male  
 b. Female

*This question was asked as an identifier question and asked of all survey participants. I was curious to know if gender played a role in determining people's liking or disliking to natural burial.*

12.How long have you been a full-time or part-time member of the island community?

- a. my entire life  
 b. for 3/4 or more of my life  
 c. for 1/2 or more of my life  
 d. for 1/4 or more of my life  
 e. for less than 1/4 of my life  
 f. I consider myself a new member of the island community  
 g. I do not consider myself a member of the island community

*This question was asked as an identifier question and asked of all survey participants. Even though it was a bit arbitrary, I wanted to get a sense of how long participants in the survey have been coming to Prudence Island.*

### ***Overview of Findings:***

120 people took the online survey between the dates of October 14, 2015 and February 26, 2016. The website and survey were available through three different posting methods: 1) through the Narragansett Bay Research Reserve's Listserv, 2) through a personal post in Facebook, and 3) through a post on the Prudence Island Facebook page. (See Appendices K-M).

85% of the survey participants liked the idea of natural burial and 56.9% were in favor of having a natural burial ground on Prudence Island (38.79% said they would need more information in order to decide). Overall, the survey suggests a positive response toward continuing the process of creating a natural burial ground on Prudence Island. (See Appendix N. for full data).

### **Interviews with natural burial ground and hybrid burial ground representatives**

The following is relevant information taken from the phone interviews which can be applied to the creation of a natural burial ground on Prudence Island. (See Appendix O. for my full notes from the interviews).

### ***Greensprings Cemetery:***

- The cemetery was created as a 130 acre nature reserve.
- They needed to survey the land
- The only concerns coming from the surrounding community were based out of not knowing information such as if coyotes can dig people up or if the bodies could possibly contaminate the drinking water.
- They run the cemetery as a non-profit with a board of directors, who mainly handle the finances
- They have a caretaker on the property but also employ other caretakers when needed (such as when they need a backhoe)
- They have been keeping track of their land using 90' X 90' map grid. They keep a paper file on site and work with two online databases which aren't available to the public.
- They bury the bodies no deeper than 3 ft because they read that most decomposition takes place at that level. Once body's buried, they mound the earth up on top, so it is kind of like 5-6ft underground all said and done.
- They mow the burial areas once a year
- They have buried 210 people so far, not including cremated remains

***Cedarbrook Burial Ground:***

- They have 150 acres of privately owned land, but the burial ground land is only 3 ½ acres.
- They needed to have the land professionally surveyed
- A requirement in Maine for the plots were that they had to be 250 ft or further away from potable water.
- They put the burial ground in a trust, meaning that it will be a cemetery forever.
- They bury the people 5 ½-6ft under the ground and 2-3 ft apart.
- There was no community backlash whatsoever
- They decided stones would be the markers because they can be engraved.

***Meetinghouse Hill Cemetery:***

- They have not been certified by the Green Burial Council because it costs too much money for them
- They allow the marker stones to be engraved, but do not allow vaults and the caskets must be biodegradable.

## Discussion

### Legal

The permitting to create a natural burial ground on Prudence Island hinges on the fact of preparing a well thought out proposal to the Portsmouth Town Zoning Review Board that adheres to the regulations set forth in Article 7 of the Portsmouth Town Zoning Ordinance. This would most likely be the last phase of the implementation process as there would need to first be community support and then a piece of land surveyed for the proposal.

### Ecological

There are parcels of land on Prudence Island that are owned by the Prudence Island Conservancy and zoned for use as a possible natural burial ground. These parcels would need to be surveyed and then evaluated to see if they are suited for natural burial ground use. As shown through the phone interviews with natural burial ground representatives, it is possible to have an area as little as 3 ½ acres for burial to take place as bodies only need to be buried 2-3ft apart (depending on how many people will be buried there). The appropriate sites would need to be chosen based on many factors which need to be explored further, as they were not addressed fully within the scope of this research thesis.

### Community

This is the first study that evaluated the attitudes of Prudence Islanders to the concept of natural burial. I believe that this is the most significant component of my thesis research as the results can both provide information for the creation of a natural burial ground on Prudence Island, but also provide a case study for why people would favor natural burial in general. The Ice Cream Social Event questionnaire and the online survey results both show a strong positive reaction to the concept of natural burial in adults of all ages, even if they had never heard of the term before.

Of survey participants who liked the idea of natural burial grounds, the most popular reason was because they are less polluting toward the environment than burials with embalming, while the least popular reason was because they were less expensive than traditional burials. This may show that environmental values in the population of survey participants are stronger than individual monetary concerns. Also interestingly, four out of the seven participants who chose to

write in an answer for this question had never heard of natural burial before going onto the website I created. This shows that the concept of natural burial fits in with people's already held belief systems.

While roughly 12% of online survey participants were neutral toward the idea, there were only four people out of 120 who answered that they did not like natural burial. Three of them had reasons. One solely believed in cremation, the second believed it would cause a disruption to the current natural environment of Prudence Island, and the third believed that the historical significance of traditional cemeteries were more important in the context of Prudence Island than the environmental destruction it would cause. A number of people also checked off reasons why they favored traditional burials. The most popular reason was because they liked the look of traditional cemeteries. Comments throughout the survey also supported this. They indicated that some people felt uncomfortable with the idea of natural burial because it was felt that the historical significance of the burial ground would be lost, especially without traditional headstones. While I believe that all of the concerns mentioned in the survey are valid, I do think that a well thought out conversation around the definition of natural burial can dispel most worries. Having a conversation like this would be a good next step on the island and is something I recommend doing.

An interesting finding of this study was that even though 85% of survey participants like the idea of natural burial, only 56% of people were in favor of having one on Prudence Island (39% wanted more information in order to decide). The most striking concerns had to do with the natural burial ground's proximity to houses. Major categories of concern had to do with the land, privacy, and human discomfort. The risk of well-water contamination was the predominant concern surrounding the impact of a natural burial on the land. The privacy concern encompassed both individuals wanting privacy to go visit loved ones and also privacy so that residents who do not want to think about natural burial do not have to be near one. Human discomfort was thought of both in terms of personal discomfort, but also other people's supposed discomfort. Many people would not want a natural burial ground near homes for this reason. Five survey participants also brought up a concern with children or animals digging in the burial ground area.

In the hypothetical scenario of having a natural burial ground on Prudence Island, the majority of survey participants thought that the landscape should be a combination of

forested/woodland and field/meadow, but there were a few write-ins for a view of the Narragansett Bay. Half of survey participants also wanted to have a rock or fieldstone as a headstone with the option of engravement. This indicates that the landscape of traditional cemeteries is heavily predominant in the minds of the residents of Prudence Island. While the vast majority of the survey participants like natural burial, they would still like to leave their mark on a permanent feature like a rock and have a semi-open landscape. What was intriguing, however, was that for survey participants who wanted a living memorial to mark their grave, a native species of tree was far more popular than just any type of tree. This again aligns with the implied environmental values of the Prudence Islanders.

Further discussion surrounding the interests in and concerns of natural burial will need to take place in the Prudence Island community before a natural burial ground is created. While 120 online survey participants is a reasonably good turnout considering the population of Prudence Island especially during the winter months, I believe more communication is needed.

#### Interviews with natural burial grounds and hybrid burial ground representatives

Phone interviews with the two representatives of natural burial grounds and one representative of a hybrid burial ground reveal that there is no one correct way to run a natural burial ground. The size of the property, type of burial, and kind of overview needed, in terms of a caretaker and board of directors, is all dependent on what is needed for a particular space and community.



## Conclusion

The results of this study show that it is possible to create a natural burial ground on the small island community of Prudence Island, Rhode Island with community support, the right piece of land, and a well thought out proposal to the Portsmouth Town Review Board.

Phone interviews with representatives of natural burial grounds supported my literature review research that each natural burial ground opened is unique in its practices, regulations, location, habitat, and community. Prudence Islanders, if they move forward with this idea, will need to think about what type of burial ground will suit their needs best, in terms of landscape, markers, location, and management practices. The results from this thesis survey are a good starting point for this conversation.

Further research will need to be completed in the ecological component of the project. The parcels of land depicted in Appendices C and E will need to be surveyed and then deemed appropriate for burial use. I, however, recommend not limiting the search for land to those parcels. Survey results show that some people are uncomfortable with a burial ground close to houses. It may be best to expand the search for land into properties further from the community, even if it means that that land will then have to be zoned for burial use.

This study, while primarily used for Prudence Islanders' benefit, can also be used to explore the broader reasons as to why people in general either favor or disfavor natural burial. As Francis et al (2000) says, cemetery landscapes can be studied to identify cultural patterns. This was shown through the surveys conducted in the ecological component of the research as islanders liked natural burial especially for these reasons: (1) it is less polluting to the environment, (2) it allows the land to return to its natural state, and (3) it is less destructive. This is mirrored in the fact that over 70% of the island's land has been preserved or protected from development over the years (Narragansett Bay National Estuarine Research Reserve, 2009). Natural burial is reflected in Prudence Islanders' already held belief systems, which makes it a viable option to consider.

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## Appendices

### **Appendix A. *Statement that was read at the May Prudence Island Conservancy Meeting***

“Dear members of the Prudence Island Conservancy Board,

My name is Lauren Jenness and I would like to get the chance to talk to you at the June 13<sup>th</sup> Conservation meeting.

Since January I have been working on a thesis proposal through the University of Vermont about natural burial grounds. I have heard that there has been talk about having a cemetery/burial ground located on land owned by the Conservancy and would like to share what I have learned with you.

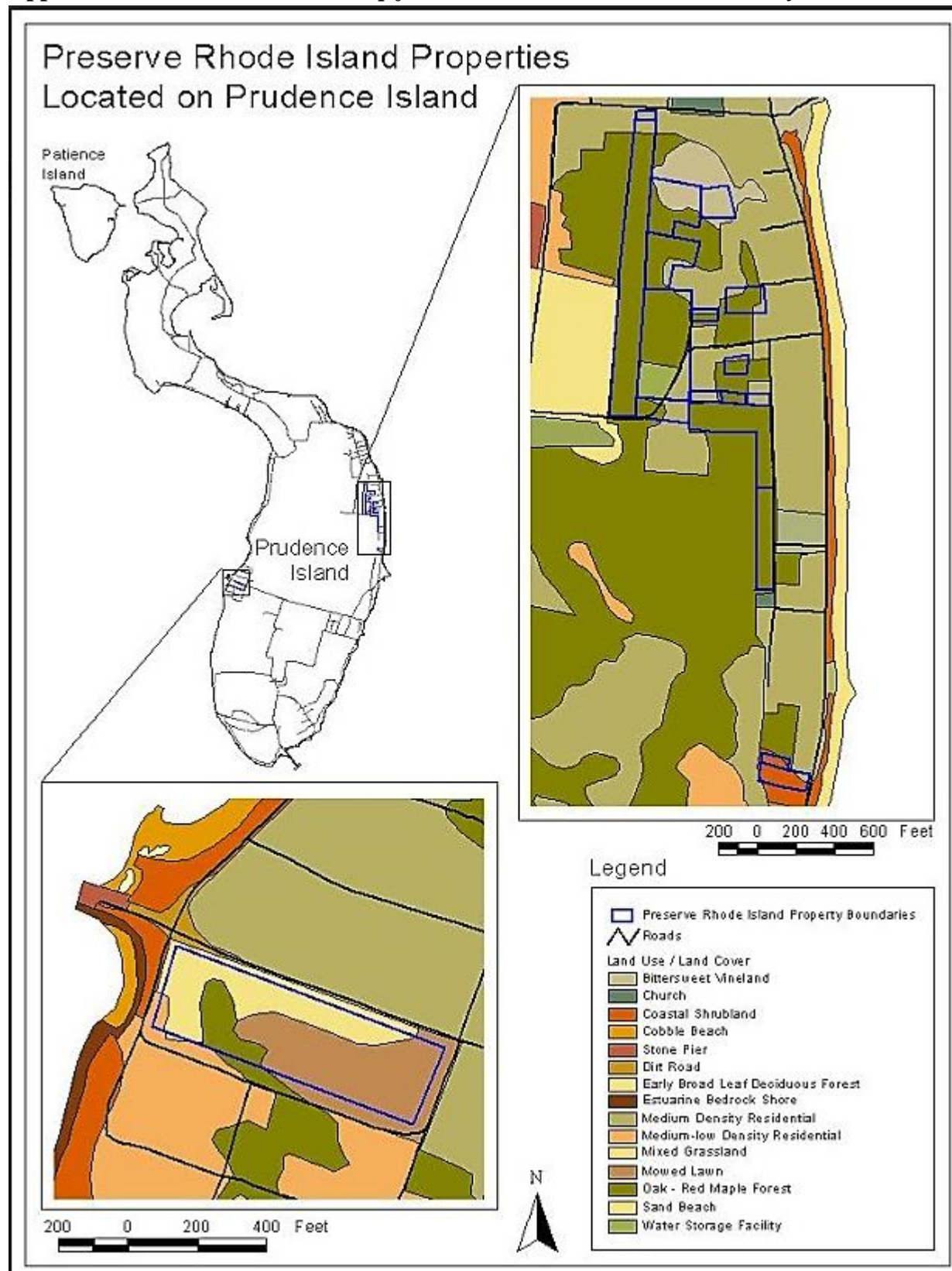
I would very much appreciated being allowed 10 minutes of your time during the meeting to share my presentation.

Thank you,  
Lauren Jenness”

### **Appendix B. *Guideline questions for natural burial/ hybrid burial ground interviews***

- steps they went through to open the burial ground
- why they wanted to open the burial ground
- laws they had to go through
- how long did it take
- any advice?
- overcome anything?
- who controls the land?
- was the community in favor of it?
- how much does it cost?
- who does maintenance?
- how many bodies?
- what type of burial marker they chose and why?

Appendix C. Preserve RI Parcel Map from the Prudence Island Conservancy





**Appendix D. Write-up for the Prudence Island Conservancy Newsletter**



Which is the burial ground? Both!!!! This year's ice cream social will feature a table seeking information about the feasibility of natural burial grounds with Prudence Island as the case study. This is part of a thesis project by Lauren Jenness. It is exploring the ecological, institutional, and community aspects associated with natural burial. Natural burial is a form of burial that tries to leave as little impact on the land as possible with graves being marked with trees, shrubs, flowers, or rocks instead of headstones. Bodies are buried using biodegradable materials with the overall goal of returning the land back to its original state. If you are interested in finding out more please stop by with any questions, comments, or concerns. Your opinions will be much appreciated!

**Appendix E. Map of the land parcels that are zoned for cemetery use**

I made this map using the ArcGIS program. I printed this map out on a small poster board and had it displayed on the table at the Ice Cream Social event.

### Parcels of Land That Could be Used for a Natural Burial Ground



**Legend**

- PI Conservancy Parcel Boundaries
- Roads



0.5 Miles



0.1 Miles



0.1 Miles

**Appendix F. Example of Sign-up sheet I created for the Ice Cream Social Event**

Name	Email or Phone Number	Keep updated about thesis?	Can I contact you for follow-up?

**Appendix G. Four Question Survey Used at Ice Cream Social Event**

1. I am interested in having some sort of burial ground on Prudence Island.

YES

NO

2. I would be okay with having graves be marked with native tree species verses headstones.

YES

NO

3. How often do you come to Prudence Island?

a. For a few days to a week every few years

b. For a vacation (long weekend- 1 month) every year

c. Summer resident

d. Year round resident

4. How old are you? \_\_\_\_\_

***Appendix I. Data Collected from Ice Cream Social Event***

24 people filled out the questionnaire

- 22 people are interested in having some sort of burial ground on PI
- 22 people are okay with having graves be marked with native tree species versus headstones
- 1 person visits the island for a long weekend-1 month every year
- 16 people were summer residents
- 6 people were year-round residents
- 1 other
- Age range: 35-80, majority in their 60s (12 people)

***Comments written on questionnaires:***




- “Not unless unmarked graves in woods far from houses. NO MARKERS”
- “Depending on place” - (*for burial ground to be accepted*)
- “Bulbs”
- “Absolutely”- *interested in burial ground*, “or no markers”
- “or rocks” - *instead of trees*
- “very interesting concept. would like more info on this”
- “depends on where!”- *spot of burial ground*

## Appendix I. Home page of the website I created

Home
Links for more information
Literature Review

### NATURAL BURIAL GROUND FEASIBILITY ON PRUDENCE ISLAND

Feeds: Posts Comments

**Click on the link below for the survey:**  
 October 1, 2015 by ljenness

[Natural Burial Opinion and Feasibility on Prudence Island](#)

Thank you very much for taking the time to fill out this survey. Your answers are helping gather research for my senior thesis "*Return to Your Roots: A Feasibility Study of a Natural Burial Ground on Prudence Island, RI*". In doing this study, I am hoping to get a better picture as to (1) why people either like or dislike the natural burial concept and (2) what type of natural burial ground would people be in favor of.

This study represents a first step in gathering information about natural burial as it relates to Prudence Island. While the information gathered will primarily be used purely for my senior thesis, if the survey results suggest strong Islander support for a natural burial ground, next steps (outside the scope of my thesis) would be to engage the community in discussions of appropriate locations, type, etc. using the results of this study as a foundation.

Please read below to find a quick description of what natural burial is and see the tabs above to find more information. I welcome any questions or comments posted within the survey. Check back in in a few months, I will post the survey results and will have answered any questions.

With much appreciation,  
 Lauren

Posted in [Uncategorized](#) | [Leave a Comment](#) »

Search for:

**META**

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[Comments RSS](#)  
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## What is Natural Burial?

September 30, 2015 by ljenness

Natural burial (also known as green burial or conservation burial) is a type of burial that tries to leave as little impact on the landscape as possible.

Commonly, bodies (or cremated remains) are buried in biodegradable coffins or shrouds and are not embalmed. Grave sites are marked using natural features such as trees, shrubs, or rocks and low-input landscaping techniques are used that will eventually allow the land to return to its original state whether that be a woodland or meadow. This type of burial was common practice in the United States until the Civil War, when embalming started to become popular, and is now making a strong comeback.

The natural burial movement is, in part, a response to the knowledge that current funeral industry practices and standards are polluting the earth and are unsustainable. However, it also resonates strongly with people who are looking for a simpler way as natural burials are less expensive and resource intensive than the typical practices of today's mainstream America .



<http://www.perfectmemorials.com/blog/green-and-greenest-natural-burial-grounds/>

Posted in [Uncategorized](#) | [Leave a Comment](#) »

## Appendix J. Webpage “Links for more information” on my website

### NATURAL BURIAL GROUND FEASIBILITY ON PRUDENCE ISLAND

Feeds:  Posts  Comments



#### Links for more information

<https://www.youtube.com/watch?v=jKLqB0CGubo> “Dying Green’ Explores Conservation Through Natural Burial” by PBS News Hour (5 min 50 sec)

Talk with Dr. Billy Campbell, founder of Ramsey Creek Preserve, and others.

<https://www.youtube.com/watch?v=WPQ1sPcQQHo> “Dying Green’ -Trailer” by American University School of Communication (2 min 8 sec)

Trailer of Documentary mentioned above.

[https://www.youtube.com/watch?v=\\_z3CnuGVkDY](https://www.youtube.com/watch?v=_z3CnuGVkDY) “Natural Burial” by Legacy.com (4 min 12 sec)

Has a good description of what natural burial is

<https://www.youtube.com/watch?v=WZ5Upa4CA90> “Greenhaven Woodland Burial Ground” by Nick Hargreaves (6 min 53 sec)

Video from the UK explaining green burial at Greenhaven Woodland Burial Ground which talks about why people like natural burial

<https://www.youtube.com/watch?v=2MfUfbwhliM> “Natural Burial- Outside the Box” by Tribute Caskets Natural Burial (13 min 20 sec)

Short documentary, contrasts natural burial with contemporary embalming methods in Canada.

<https://www.youtube.com/watch?v=OyA0VLzOPPA> “Saving 1 Million Acres for 2,000 Years” by TEDx (13 min 45 sec)

TED talk with Billy Campbell, founder of Ramsey Creek Preserve. Video highlights conservation burial.

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**Appendix K. Email sent to Narragansett Bay Research Reserve Listserv**



Dear Robin,

**Natural Burial Ground Feasibility on Prudence Island**

The Reserve is pleased to assist one of our own past Interns to conduct her senior thesis project entitled "Return to Your Roots: A Feasibility Study of a Natural Burial Ground on Prudence Island, RI".



Please click on the link below to learn more about this study and to participate in a survey regarding your thoughts about whether a natural burial ground would be appropriate for Prudence Island and what type of burial ground you would prefer.

Survey link: [Natural Burial Opinion and Feasibility on Prudence Island](#)



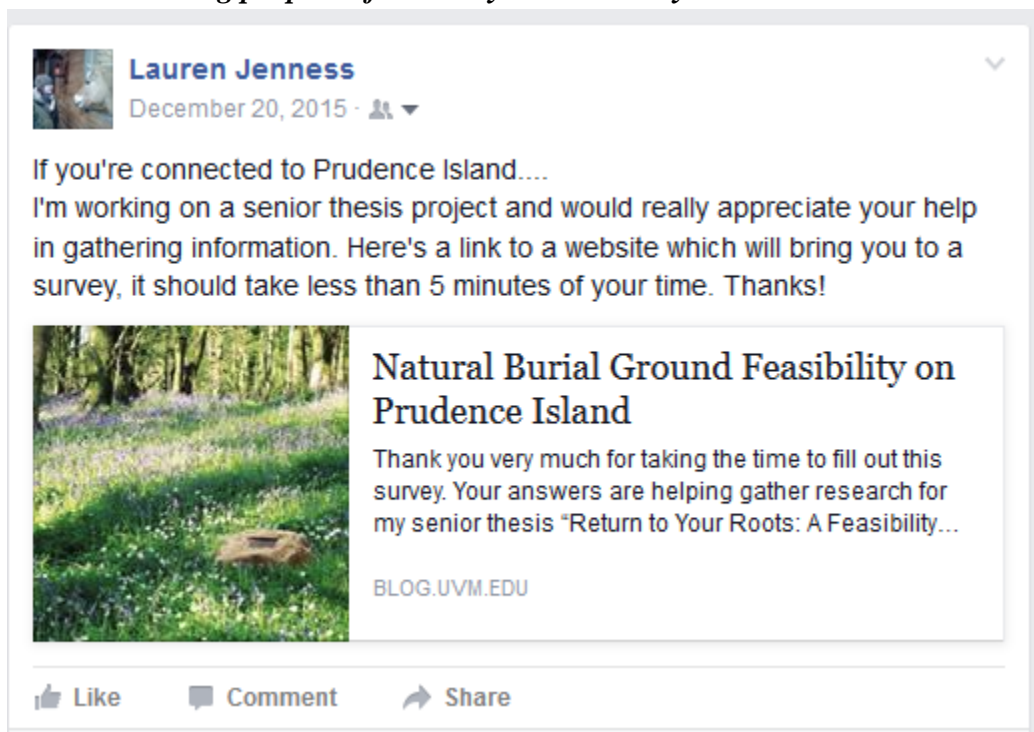
*Thanks, in advance, for your assistance with this project!*





Like us on Facebook Follow us on twitter




**Appendix L. Post asking people to fill out my online survey on Facebook**



**Lauren Jenness**  
December 20, 2015 ·  




If you're connected to Prudence Island....  
I'm working on a senior thesis project and would really appreciate your help in gathering information. Here's a link to a website which will bring you to a survey, it should take less than 5 minutes of your time. Thanks!



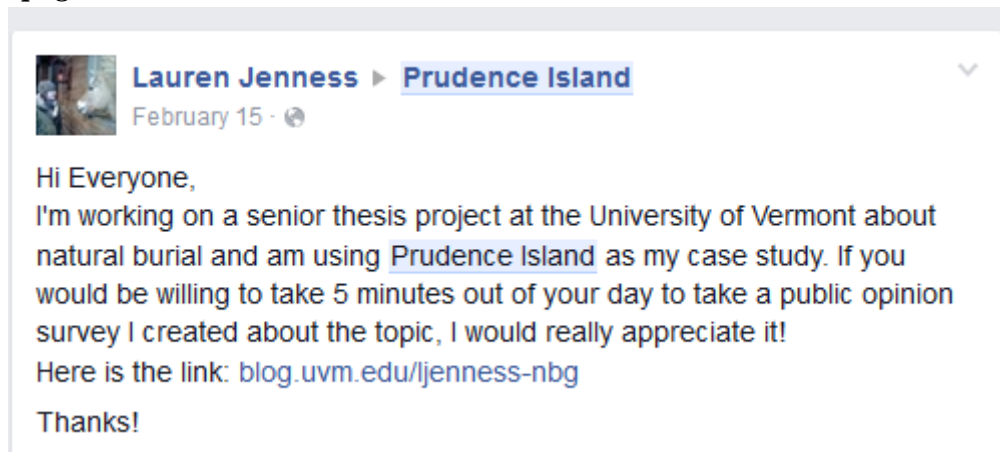
**Natural Burial Ground Feasibility on Prudence Island**


Thank you very much for taking the time to fill out this survey. Your answers are helping gather research for my senior thesis "Return to Your Roots: A Feasibility..."

BLOG.UVM.EDU

 Like    Comment    Share

**Appendix M. Post asking people to fill out my online survey posted to Prudence Island Facebook page**



**Lauren Jenness** ▶ **Prudence Island**  
February 15 · 

Hi Everyone,  
I'm working on a senior thesis project at the University of Vermont about natural burial and am using **Prudence Island** as my case study. If you would be willing to take 5 minutes out of your day to take a public opinion survey I created about the topic, I would really appreciate it!  
Here is the link: [blog.uvm.edu/ljenness-nbg](http://blog.uvm.edu/ljenness-nbg)  
Thanks!

## Appendix N. Data from Online Survey

**Question 1:** Have you heard of the term "natural burial", "green burial", or "conservation burial" before looking at the website?

- |  |               |                 |
|--|---------------|-----------------|
| a. Yes                                       | <b>51.67%</b> | (62 out of 120) |
| b. No  | <b>46.67%</b> | (56 out of 120) |
| 2 (1.67%) chose not to fill this question in |               |                 |

**Question 2:** After reading the description on the website, how do you feel about the concept of natural burial?

- |  |               |                 |
|--|---------------|-----------------|
| a. I really like the idea of natural burial        | <b>53.33%</b> | (64 out of 120) |
| b. I kind of like the idea of natural burial       | <b>31.67%</b> | (38 out of 120) |
| c. Neutral   | <b>11.67%</b> | (14 out of 120) |
| d. I kind of don't like the idea of natural burial | <b>0.83%</b>  | (1 out of 120)  |
| e. I do not like the idea of natural burial        | <b>2.5%</b>   | (3 out of 120)  |

**Question 3:** Which of the following are reasons why you like natural burial? (select all that apply)

- |   |               |                 |
|---|---------------|-----------------|
| a. They are less polluting to the environment than traditional burial because there is no embalming               | <b>79.31%</b> | (92 out of 116) |
| b. They are less destructive to the environment than traditional burial because they aren't as resource-intensive | <b>67.24%</b> | (78 out of 116) |
| c. They are less expensive than traditional burial  | <b>56.9%</b>  | (66 out of 116) |
| d. They use natural features such as trees, plants, or rocks to mark graves vs headstones                         | <b>62.07%</b> | (72 out of 116) |
| e. They ensure land conservation  | <b>57.76%</b> | (67 out of 116) |
| f. They allow the land to return to its natural state   | <b>68.1%</b>  | (79 out of 116) |
| g. I have another reason why I favor natural burial that I would like to mention                                  | <b>6.03%</b>  | (7 out of 116)  |

### **Comments:**

- "I see no need to leave behind a permanent footprint of my time alive, that can not be utilized for any other purpose in the future. That people rarely, if ever visit again".
- "It is what I have always wanted and have shared this with my daughter. I just didn't know it had a name so now, I'm super excited. This is just how I'd like to go...to return to the earth so to speak. All the things they do after you're dead just seem to make no sense. I want to go out the way I came in au naturale. I have no desire to be preserved in any way shape or form. I like to think some day I'll be part of something else, a meadow, a tree, something beautiful".
- "I feel people like to be one with a particular area they feel attachment to"

- “The concept of my body returning to nourish the Earth as She has nourished me is appealing”.
- “It is less artificial and creepy. I like the romantic notion of being connected and a part of the land”
- “I would prefer to have this type of burial for myself don't like the idea of chemicals being pumped thru my body”
- “fits in with my religious beliefs”

**Question 4:** Which of the following are reasons that you dislike the idea of natural burial? (select all that apply)

- |   |               |                |
|---|---------------|----------------|
| a. I like the idea of embalming, which isn't an option with natural burial  | <b>8.93%</b>  | (5 out of 56)  |
| b. I like the look of traditional cemeteries with the headstones and manicured lawns  | <b>48.21%</b> | (27 out of 56) |
| c. I like the caskets associated with traditional burial rather than a biodegradable casket or shroud that's used in natural burial | <b>10.71%</b> | (6 out of 56)  |
| d. I don't like another aspect of natural burial which I would like to mention  | <b>30.36%</b> | (17 out of 56) |

***Comments:***

- “I only believe in cremation not burying human remains”
- “It would cause disruption of the current natural environment”
- “It's not natural burial per se that is the issue for me, but for the combination of the historical significance of the cemeteries themselves, and the populations you are considering. If this is limited to the populations on PI itself, I don't think that the degree of environmental destruction is scientifically significant What it does do is preserve the relationship of the individuals and communities that have gone before”
- “I appreciate the wake process; as part of saying goodbye to one's loved ones. I'm not sure how the two ideologues could blend together”
- “I like the headstone as a marker”
- “I think it's a great idea, but not sure it's feasible on an island, with space constrictions”
- “Possible water source contamination. Whether salt or fresh since the island is small and there are many private wells and most surface water probably runs into the bay eventually. One question, how would family plots be worked out? But the idea in General would be great!”
- “I take up too much space now”
- “Possible issues with groundwater contamination”
- “Should be cremated remains”
- “It is not that I don't like this concept, cemeteries are places where family can easily get to to honor their deceased family members. In fact, I do not wish to be buried at all, just having my cremated remains scattered in Narragansett Bay”
- “Could be an intrusion to one that is walking in the woods”
- “What about low lands and possibility of flooding”
- “I don't like manicured lawns, but I do like traditional cemetery headstones. Prudence has some beautiful cemeteries that have headstones, but not manicured lawns”

**Question 5:** Would you be in favor of having a natural burial ground on Prudence?

- |   |               |                 |
|---|---------------|-----------------|
| a. Yes  | <b>56.9%</b>  | (66 out of 116) |
| b. No   | <b>4.3%</b>   | (5 out of 116)  |
| c. Unsure- I would need more information in order to decide | <b>38.79%</b> | (45 out of 116) |

**Question 6:** If there was a natural burial ground on Prudence Island, what type of access do you think would be appropriate?

- |   |               |                 |
|---|---------------|-----------------|
| a. I would want the natural burial ground to be right off of a road, easily accessible by car | <b>13.39%</b> | (15 out of 112) |
| b. I would want the natural burial ground off in the woods, accessible by a trail             | <b>41.07%</b> | (46 out of 112) |
| c. It Doesn't matter to me  | <b>45.54%</b> | (51 out of 112) |

**Question 7:** If there was a natural burial ground on Prudence Island, would its proximity to houses be of concern to you?

- |        |               |                 |
|--------|---------------|-----------------|
| a. Yes | <b>61.61%</b> | (69 out of 112) |
| b. No  | <b>38.39%</b> | (43 out of 112) |

**Comments: (Organized by category of concern)**

**Privacy**

- "Privacy"
- "Privacy"
- "Privacy for visitors and myself"
- "My definition a burial site should not be near homes. That does not feel natural to me. Also I like the idea of being in the woods having some privacy"
- "Needs to be a place people could visit on their own time and not disturb others"
- "That anyone visiting a loved one interred in the natural burial ground would disturb nearby homeowners and the idea of a natural burial ground is to have it out in nature rather than in a neighborhood"
- "Privacy for the mourners and the home owners"
- "would want a quiet place to 'go' visit a loved one. Also wouldn't want to infringe on other's comfort level with concept"
- "A person visiting the burial site of a loved one doesn't want to be in close proximity to houses, people, and their distractions"
- "Privacy for the interred and any visitors"
- "I think it would be better further away to ensure that it was preserved the land and did not bother residents who were not in favor of the burial"
- "It should be in a quiet place, set aside for such burials. If it were on Prudence, would it be limited to such burials?"
- "I would like to be closest to nature"
- "I'd personally prefer to be in the full glory of the wild of Prudence Island, but being within sight of houses is okay, just not abutting them"
- "I believe people that lived near a burial site would be annoyed by extra traffic and commotion from people visiting their loved ones"
- "Too much traffic"

- “A lot of people have wells and I just think it would be better set away from houses ,in a private, quiet, peaceful, place, maybe an ocean view please”

#### **Concerns with Land**

- “Water pollution; not just flesh biodegradation but the chemical we tend to ingest as we are older. Ex if a person had been exposed to cancer treatments. Long term.studies of those drugged in the environment may need to be discussed. Check out studies of acetaminophen in wastewater. Unregulated such high levels have been recorded”
- “water pollution”
- “If the island floods I would prefer bodies not rise to the surface as they do in places like New orleans”
- “My only concern would be locating the site relative to water sources so that there is no risk of contamination.”
- “Disease”
- “Disease”
- “Well water”
- “Well water”
- “Erosion”
- “Water table for wells. May not be an issue. Don't know enough”
- “If you have wells it can be an issue and I wouldn't want to accidentally get dug up when someone is working on their land. It should be a place away from homes”
- “Land contamination”
- “Private wells”
- “Ground contamination caused by decomposition of remains...”
- “Ground water contamination”
- “Property value issues as well as upkeep of grounds”
- “It should be far enough away as not to ever be in danger of being disturbed by development”
- “I would prefer it be set apart from neighboring house lot lines by a buffer of 100 feet or so”

#### **Human discomfort**

- “A little too close for comfort...”
- “I think the abutting homeowners would need to agree to it”
- “Should be a fair distance from houses”
- “It may force someone who is not comfortable with it to have to deal with it better if away from homes”
- “Some people may be uncomfortable having remains so close to their homes”
- “Concerned about the impact visitors to the burial site would have on neighbor's homes”
- “One might have it as view from their window”
- “Pets and kids being naturally curious”
- “Children playing and digging”
- “I would not want children running and playing in a natural burial ground. If it were located in the woods off a trail it would decrease that possibility”
- “Unearthed bodies via dogs etc”
- “animals it may bring closer to the homes”
- “It depends how close to the houses it is. My concern is simply a 'creepy factor”
- “Vandalism”
- “I don't want my neighbors burying family and friends in their yards”
- “people should have a say”

- “in a sense all burial grounds are 'commercial'. The absence of commercial establishments on Prudence Island is essential to its identity”
- “House occupants may not respect the grounds as much as if it were in a more sheltered location”
- “General concerns about it being a solemn place”
- “I would not want a burial site abutting my own home”
- “People may not appreciate the reasoning behind natural burial so if people rented and had issues with it they may bring up their concerns to the town/stare authorities”

**Other**

- “This isn't my answer--you lack other possible responses such as water burial”

**Question 8:** If there was a natural burial ground on Prudence Island, what type of landscape do you think would be appropriate?

a. Forested/ woodland	<b>9.82%</b>	(11 out of 112)
b. field/ meadow	<b>8.92%</b>	(10 out of 112)
c. a combination of forested/woodland and field/meadow	<b>77.67%</b>	(87 out of 112)
d. Other	<b>3.57%</b>	(4 out of 112)

**Comments:**

- “I don't know. Whatever is thought best. The big field behind my house would be fine with me”
- “Bay view”
- “Water”
- “Ocean view”

**Question 9:**What type of marker do you think would be most appropriate in a natural burial ground on Prudence Island?

a. native tree or plant as a living memorial	<b>24.11%</b>	(27 out of 112)
b. any tree or plant as a living memorial	<b>2.68%</b>	(3 out of 112)
c. a rock / fieldstone which would have the option of engravement	<b>50%</b>	(56 out of 112)
d. no marker	<b>5.36%</b>	(6 out of 112)
e. It wouldn't matter to me	<b>17.86%</b>	(20 out of 112)
f. Other	<b>0%</b>	(0 out of 112)

**Question 10:** What is your age?

a.18-25	<b>7.5%</b>	(9 out of 120)
b.26-35	<b>8.33%</b>	(10 out of 120)
c.36-45	<b>11.67%</b>	(14 out of 120)
d.46-55	<b>27.5%</b>	(33 out of 120)
e.56-65	<b>23.33%</b>	(28 out of 120)
f.66-75	<b>12.5%</b>	(15 out of 120)
g.76-85	<b>5%</b>	(6 out of 120)

h.85 and up                   **0.83%**                   (1 out of 120)  
(4 no answer)

**Question 11:** What is your gender?

a. Male                   **29.2%**                   (29 out of 120)  
b. Female               **67.5%**                   (81 out of 120)  
(4 no answer)

**Question 12:** How long have you been a full-time or part-time member of the island community?

a. my entire life   **44.83%**                   (52 out of 116)  
  
b. for 3/4 or more of my life   **10.34%**                   (12 out of 116)  
c. for 1/2 or more of my life   **12.07%**                   (14 out of 116)  
d. for 1/4 or more of my life   **8.62%**                   (10 out of 116)  
e. for less than 1/4 of my life   **8.62%**                   (10 out of 116)  
f. I consider myself a new member   **6.9%**                   (8 out of 116)  
of the island community  
g. I do not consider myself a member   **8.62%**                   (10 out of 116)  
of the island community

**Questions, Comments, and Concerns:**

- “Interesting study - I'm an archaeologist and I have done some work on historical cemeteries myself. Will you post the results of the study when it is completed? Good luck!”
- “Will need more information regarding the ecological impact the practice has on the soil and water table near the graves and what restrictions would be necessary”
- “I think the current absence of a burial ground on Prudence Island is tragic. This is my home and the one place in the world where I would want to be laid to rest. I sincerely hope that your effort to gauge the community's' attitude will eventually result in a burial ground for this community. Thanks so much”
- “I think this a wonderful idea for any community!”
- “I think this is a great idea. We will soon be moving full time to our house on the island. I would love to see a green burial option in this community”
- “I think this is a great idea!”
- “I think this is such a great idea! My husband and I looked into natural burial options and had not found any legal options in RI (other than standard cremations and burials at sea). Although we are in our late 30s, we have been thinking about the future and about what alternatives to traditional burials would be available to us”
- “Prudence Island was where my mother spent the happiest time of her life in the 1920's and 30's. Although I am not a resident, it has always been an important place to our family. Creating a natural final resting area for those who love the island best is 'altogether fitting and proper”
- “Great topic that most of us put on the back burner! Much appreciated..”
- “I think this is a wonderful idea and I hope it becomes a reality in my lifetime!”
- “Good luck with your project. I think Prudence is a perfect spot for a natural burial ground and might expect that life-long residents might agree. (There is the British soldier burial/marker in the woods off Sunset Trail.) I do feel that it should be in a somewhat secluded, wooded spot accessible by a trail. It could

be a point of interest to some and a spot for reflection for others, but not where someone might play sports and use a memorial tree as home base! :-)"

- "Very cool thesis idea!! Never heard of it before, but seems like an awesome alternative to traditional burials!"
- "10 years ago, I explored the concept for Prudence Conservancy land, and I was busy doing other things and dropped the idea. There is a parcel owned by the Conservancy that has permission for a cemetery in the title or CE -- I forget which. Contact me and we can talk."
- "Just wondering where you are attending college."
- "Good luck! What a great thesis topic. And, thank you for the education...off to call my daughter :)"
- "the more discreet the better"
- "Would this be available to non-islanders. People who vacation on the Island, who would like to be put to rest there?"
- "As I mentioned, the public needs to be on board with this. I think many long term islanders would welcome the opportunity to reside there forever. No one has an issue with the current historical cemetery. I personally think the funeral industry is way over regulated, and I cannot justify spending the amount of money for a small car just to be stuck in the ground. Most Jewish cemeteries are fenced and gated, as they do not have cement vaults, so the fencing keeps people out during off hours, and prevents anyone from perhaps sinking into a decomposed coffin"
- "I like the trail in the woods aspect but accessibility for the elders is key"
- "Great job! I think many long term islanders especially would appreciate something like this"
- "Wonderful idea, I think many islanders would consider this as an option, which is why I think space would need to be addressed - long terms options, etc"
- "My personally dreary morbid thoughts tend toward how does grave robbing get thwarted. Humanity can be brutal in its macabre sensibilities"

### ***Appendix O. Notes from phone interviews with natural/hybrid burial ground representatives***

#### Cedar Brook Cemetery, Joyce

Started in 2007

her and her husband Peter, peter died prostate cancer so now its her  
raised in MASS (peter) his dad was a pharmacist, always wanted to be buried naturally  
land is 150 acres privately owned

Joshua Small Cemetery- original cemetery on land dating to 1700s has a stone fence around it  
he read an article about green burial in california and wanted to start one on his own.

in Maine clear it with the dept of health and human services  
survey the land picked 3 ½ acres  
needed to be officially surveyed  
registered it by the county register of deeds  
requirement- must not be within 250 ft of potable water

friend became webmaster and created site

followed the rules of the town- there wasn't any at that point  
now need to go before town planning commission and get a conditional use permit

no community backlash whatsoever



put cemetery in a trust, will be a cemetery forever

if someone wants to expand in the future they will have to resurvey the land and reapply for the conditional use permit

stones- good option because they last a long time and can be engraved

\$800 single

\$600 veteran

\$1400 double

\$300 cremated

plus

\$600 summer

\$800 winter to open and close site

bury 5 ½ -6 ft down

2-3 ft apart

trees and roots and random selection for plots make it not uniform

sold 150 lots so far

### Interview Greensprings

- Talked to Jennifer Johnson.
  - Opened burial ground with idea that they didn't like contemporary/modern burial. They didn't like the idea of embalming. wanted their total body buried, not having anything replaced. Also loved idea of giving back to the earth as your final gift. the ultimate recycling. Also caskets of typical burial wood comes from Amazon rainforest cut down- makes no sense.
  - In an afterthought once things got rolling also restoring natural habitat became a big factor- why they created it as a nature reserve- 130 acres
  - Had to talk to NY state division of cemeteries- they guided them through the steps--took a while, mostly because of the land acquisition. Did need to survey land.
    - Thought they had to present to the town board but actually didn't need to. People were concerned and some questions they asked the State health department- like how far bodies can be buried from water
  - Concern from the community was based out of not knowing and fear
    - coyotes, water, once they presented facts things got better
  - They are a non-profit association with a board of directors- finances mostly
  - there's a caretaker on the property and other caretakers with backhoes

- Currently working on a conservation easement for the property
- continually adjusting rules and regulations as they learn more
- Keep track of land using 90' X 90' map grid, paper files on site and 2 online databases (not available to public)
- Bury bodies no deeper than 3 ft bc read that most decomposition takes place at that level. Once body's buried the earth mounds on top, so it is kind of like 5-6ft underground. No NY state law says how deep a body needs to be buried.
- Mow burial areas once a year
- On the verge of getting a gps unit, non-profit so tight on money
- 210 buried so far (not including cremated remains)

#### Interview Meetinghouse Hill Cemetery

- Talked to Andrea Mitchell who works there.
  - They aren't certified by the Green Burial Council
  - Made cemetery hybrid because people were asking for it.
  - Small space allocated, only 2-3 people so far
  - Allow cremation
  - Thought the idea of green/natural burial was becoming more popular, but still see biggest trend is toward cremation, most burials are not whole body burials but cremated remains
  - Allow stones and can be engraved- not really any regulation except no vaults and have to be biodegradable materials
  - Costs too much money for them to be certified by GBC
  - Private cemetery but anyone can be buried there
  - They try to be accommodating