

## Chapter 2

# Early Years on Mount Desert Island: The First Generation

Mount Desert Island is a special place. Its history has been written numerous times,<sup>1</sup> so it will be described here only briefly. The island<sup>2</sup> is situated about two-thirds the way up the coast of Maine and about 275 miles northeast of Boston (Fig. 2.1). This area of the country is commonly termed “Down East” just as the early ship captains called this direction of sailing along the coast because of prevailing winds and the Gulf Stream. The island (hereafter denoted MDI) was first “discovered”<sup>3</sup> and briefly explored (by nonindigenous peoples) by Samuel de Champlain<sup>4</sup> in 1604, who

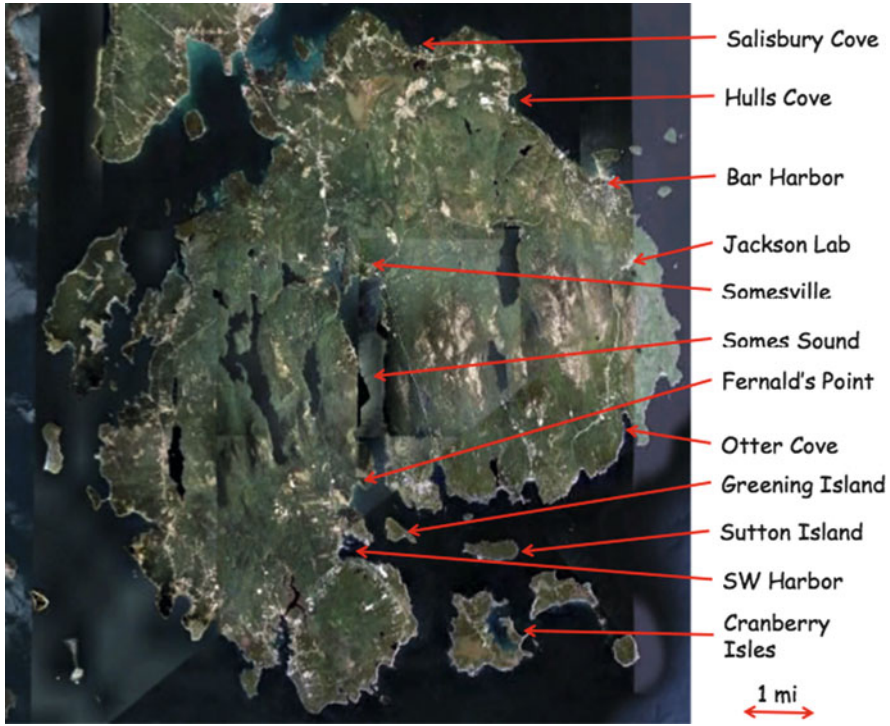
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<sup>1</sup> See, for example, Street (1905), Hale (1949), Morison (1960), Hansen (1989), Mazlish (1997), Dorr (1997), McBride and Prins (2009), and Vandenberg and Shettleworth (2009).

<sup>2</sup> MDI has an area of 108 square miles; it is the largest island in Maine and the sixth largest island in the contiguous USA. Encyclopedia Britannica online: <http://www.britannica.com/place/Mount-Desert-Island>.

<sup>3</sup> Samuel Eliot Morison suggests that the Portuguese explorer Estévan Gomes (Gomez) actually saw the island while exploring the North American coast for the Spanish in 1525. He cites a 1529 map by Diego Ribero, which shows Gomes’ route and a “Rio de Montanas” between what is now the Penobscot River and the Bay of Fundy. The only river or estuary east of the Penobscot that has mountains on both sides is what is now called Somes Sound, which nearly bisects MDI (Morison 1960, 1971). Samuel Eliot Morison is perhaps best known for his comprehensive, 15-volume, naval history of Second World War, as well as a single-volume summary (Morison 1963).

<sup>4</sup> Champlain was the pilot and guide for Pierre du Guast, Sieur de Monts, who had a grant from Henri IV of France for all the land in North America between latitude 40° and 46°, approximately from modern Philadelphia to Montreal. Sieur de Monts set up a small colony on an island in the St. Croix River (which now separates Maine from New Brunswick) and sent Champlain to explore what was then termed *L’Acadie* (Morison 1960). Between September 5 and 7, 1604, Champlain and his crew explored the eastern side of MDI (discovering that it was an island, not a peninsula, and passing what is now Salisbury Cove), ran aground near what is now Otter Cliffs (on the southeast side of MDI), repaired his small boat (called a patache) in Otter Cove, entered Somes Sound and exchanged gifts with some Native American inhabitants, and then sailed west into Penobscot Bay, passing a tall island which he named “Isle au Haut” (Fischer 2008). For more on Champlain, see Morison (1971) and Parkman (2008).



**Fig. 2.1** Satellite view of Mount Desert Island Maine, with sites of interest to this narrative indicated by *red arrows* (Taken from Google Earth satellite image)

named the island “Isle des Monts-Deserts”—the isle of bare mountain.<sup>5</sup> Europeans returned to MDI in spring of 1613, when 48 “settlers, artisans, and laborers” led by French Jesuit priests approached the island in a boat called the *Jonas*. They “carried horses, goats, and all things deemed needful by the pious patrons of the enterprise” (Street 1905, p. 18). The Jesuit leader, Father Pierre Biard, wrote: “We then discovered that we were near the coast of Mount Desert, an island which the savages call Pemetic. The pilot steered towards the eastern shore, and landed us in a large and beautiful harbor. We returned thanks to God, elevating the Cross, and singing praises with the holy Sacrifice of Mass. We named the place and harbor Saint Sauveur.”<sup>6</sup> A few days later, “savages” led the group to the mouth of Somes Sound to treat their ill chief (“sagamore”) Asticou. “Here they found that the illness

<sup>5</sup> To this day, there is some discussion about the “proper” pronunciation of “desert.” As Morison pointed out (Morison 1960), there is the “Sahara School” which prefers the accent on the first syllable and the “Ice Cream and Cake School” which prefers the accent on the last syllable, pronouncing the word like “dessert.” It is pronounced both ways today, although true islanders generally prefer the accent on the last syllable.

<sup>6</sup> The site was probably near present-day Bar Harbor (Street 1905).

of the chief was no more than a pretext by which the savages had induced them to view the spot where they wished the Jesuits to settle; and their device was abundantly successful. The point opposite the Indian village seemed an ideal place for their colony, and so, as this settled all disputes, the ship was brought round and it was unanimously agreed to remain at Mount Desert.”<sup>7</sup> “The company. . . disembarked; tents were pitched, trees felled for timber and firewood, ground broken for corn, the men set to work catching and making fish. A score of Indians were baptized. The *Jonas* was securely moored off Fernald’s Cove. The name Saint-Sauveur was transferred to this place, a cross was raised. . . and mass was said daily.”<sup>8</sup>

Within a month, tragedy struck the French colony. Indians, assuming that all white men were friends of each other, mentioned the colony to Captain Samuel Argall of the English ship *Treasurer*,<sup>9</sup> which carried 14 guns and was patrolling the coast in support of King James I claim of territory between the Hudson and St. Lawrence Rivers. The English surprised the colony at Saint Sauveur and routed the inhabitants. “The English plundered their prisoners of everything movable; but at least did not kill them. . . Argall gave Saussaye<sup>10</sup> the longboat and told him to shove off; he took fourteen men with him, crossed the Bay of Fundy, met a French ship, and got safely home. The rest, Captain Argall took to Jamestown,<sup>11</sup> where Sir Thomas Dale, Governor of Virginia, threatened to have them hanged as pirates; but Argall successfully interceded and was allowed to carry them to England. Father Biard eventually returned to his academic post at the University of Lyons, where he doubtless entertained his pupils with tales of the beauties of Mount Desert, the kindness of Asticou’s Indians, and the cruelty of the English heretics.”<sup>12</sup> Later in the seventeenth century, Antoine Laumet de la Mothe, Sieur de Cadillac<sup>13</sup>, lived for at least one summer on the eastern side of MDI, on a land grant from the French

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<sup>7</sup> Street notes that “Father Biard’s description so clearly identifies the final site of Saint Sauveur that Parkman and all the other authorities agree that it must have been at Fernald’s Point at the west shore entrance to Somes Sound” (Street 1905).

<sup>8</sup> Morison (1960), p. 16

<sup>9</sup> The *Treasurer* and its Captain had a very interesting history. He “procured corn from the Indians for the starving settlers of Jamestown, and in her he effected the capture of Pocahontas. . . in her in 1613, he made the expeditions against the French colonies in Maine and the Dutch in Manhattan, and in her he returned to England in 1616 with Sir Thomas Dale, Pocahontas, and her husband, John Rolfe” (Street 1905).

<sup>10</sup> Sieur de la Saussaye was the leader of the French expedition (Street 1905, p. 17).

<sup>11</sup> Interestingly, a mountainous landform appears on the edge of Captain John Smith’s map of New England. He entered Penobscot Bay on his voyage of 1617 and presumably saw MDI to the northeast from a distance (Street 1905).

<sup>12</sup> Morrison (1960), p. 18. Street (1905) gives a much more detailed account of the Jesuit colony’s destruction by the English. See also Garrity (2011).

<sup>13</sup> The honorific title was merely assumed by this son of a lawyer from a small village near Cadillac in Gascony. Morison states: “From here he went to Montreal, entered the fur trade, founded Detroit. . . and ended his days as Governor of French Louisiana” (Morison 1960).

government. A 1688 British census noted that “a Cadolick and wife reside on the east side of Mount Desert” (Street 1905, p. 36).

For the next 75 years, there was no permanent settlement on MDI, because of the nearly constant conflict between English and French interests during the early part of the eighteenth century. As Morison describes (Morison 1960, p. 23), the island and its surrounding bays were probably a staging ground for ships from both sides during this period. Frenchman Bay,<sup>14</sup> to the east of MDI, was often filled with French warships, while anchorages at the mouth of Somes Sound were used by the British. In fact, the British were able to replenish their freshwater supplies from what is still called Man o’ War Brook, which runs between modern Acadia and St. Sauveur mountains, ending in Somes Sound. Wolfe’s victory at the Battle of Quebec in 1759 effectively ended the nearly century and a half conflict between the French and British over the northeastern part of the continent, so by “the summers of 1760 and 1761 hundreds of men were hastening to Maine by every kind of craft that would float...As a rule the men came in the first summer, chose a site for habitation, and made a clearing. The next summer the family came, usually two or three families together, and lived in the vessels until the log house were built. This is the story of the founding of all the shore towns east of Penobscot Bay” (Street 1905, p. 45).

In 1762, the Governor of Massachusetts, Francis Bernard, was granted the western half of MDI by the General Court of Massachusetts, so that autumn he sailed up the coast to survey his new acquisition. Upon arrival, he discovered that there were four families living on one of the Cranberry Islands and “two families at the head of the river, eight miles from our station.”<sup>15</sup> The families at the head of the sound were named Somes and Richardson. Abraham Somes had arrived in 1761 from Gloucester, MA, and is considered the pioneer settler on MDI, because the Somes family and Thomas Richardson and his family did not arrive until the next summer. The story goes that Somes had explored the sound in 1755 with an Ebenezer Sutton and had purchased what is now called Greening Island from an Indian for a gallon of rum; Sutton got a better deal, purchasing what is now called Sutton Island for only two quarts (Morison 1960, p. 27).

Governor Bernard encouraged further settlement and actually laid out a plan for lots to be sold in what became Southwest Harbor, at the west entrance to Somes Sound. But Bernard became very unpopular in the years leading up the Revolution and was recalled to England in July, 1769. His departure from Boston was celebrated by bells rung, cannon fired, and “the Liberty Tree made gay with flags, and at midnight great bonfires were kindled on Fort Hill.” Despite the fact that “he had proved too wanting in tact and too hot-tempered to deal with a critical political situation...he should be remembered as a liberal benefactor of Harvard College [and] as a friend of many endeavors for public improvement” (Street

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<sup>14</sup> Morison called it “Frenchmans Bay” (Morison 1960, p. 23) and Hansen called it “Frenchman’s Bay” (Hansen 1989, p. 20), both of which are the spelling on some older maps. Modern maps generally call the bay “Frenchman,” which is used by Fischer (2008, p. 175).

<sup>15</sup> Street (1905), p. 48. The Cranberry Islands are just outside the mouth of Somes Sound, which was “the river.”

1905, pp. 54–56). When Bernard died in England in 1778, he left his holdings on MDI to his son, John, who had stayed in the colonies during the Revolution. Since the original grant had been rescinded by Massachusetts during the Revolution, it took some complicated maneuvering to reestablish the claim, but the grant for the western half of MDI was confirmed by Massachusetts Governor James Bowdoin in 1785. Within a month, John Bernard mortgaged the grant and sailed to England where he became Sir John, served in Barbados and St. Vincent, and died in 1809 (Street 1905, p. 57). In the same period, Maria Theresa de Gregoire petitioned to be granted her claim for the eastern half of MDI,<sup>16</sup> based upon the old claim of her grandfather, Cadillac. It was granted in 1787, largely because of a letter of support written by the Marquis de Lafayette, so Maria Theresa, her husband Barthelemy de Gregoire, and their three children settled in what is now called Hulls Cove on the northeast shore of MDI. The de Gregoires built a small house and a mill and started farming. Over the next decade, they farmed and sold off various parcels to other settlers, but the family did not prosper. So they sold all their remaining property, including the home in Hulls Cove, to Royal Gurley in 1806. He supported the family until Monsieur de Gregoire's death in 1810 and Madame de Gregoire's death a year later.<sup>17</sup> The children had apparently left for France before their parents' death (Street 1905, p. 62).

During the period from approximately 1775–1850, many families moved onto MDI, and various small settlements started, including Bar Harbor (which became the largest and most famous of the MDI towns) and Salisbury Cove,<sup>18</sup> the destination of the boat carrying supplies for the move of the Harpswell Laboratory to MDI in the early summer of 1921. The relatively substantial influx of new settlers, tourists, and summer visitors to MDI after 1850 was largely the result of landscape paintings in the mid-nineteenth century by Fitz Hugh Lane and Thomas Cole, Frederick Church, and William Hart (members of the Hudson River School of Artists).<sup>19</sup> Mount Desert Island became a destination for summer visitors (called “rusticators”) seeking more pristine environs in which to vacation. Increasing numbers of visitors generated the need for less rustic accommodation. So by the

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<sup>16</sup> The first English/American settler on the eastern half of MDI was probably John Hamor in 1768, who brought his wife Mary Rodick (Street 1905). Hamor is a common surname on MDI today, and there is a Rodick Street in Bar Harbor.

<sup>17</sup> The local story that the de Gregoires were denied burial in the local burial ground because they were Catholics is apparently untrue. Street maintains that the burials were in the lee of some spruce trees, because “the day . . . was bitterly cold and windy and the snow was deep” (Street 1905).

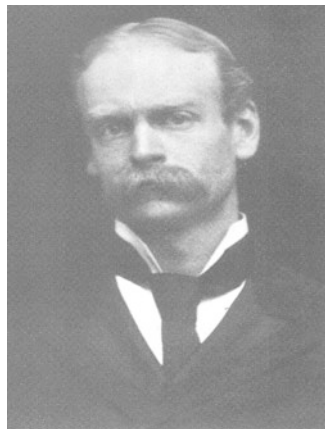
<sup>18</sup> Ebenezer Salsbury and his wife were probably the first (1776) settlers on the point that is now Bar Harbor, but they soon moved to what became Salsbury's Cove, where they died in 1825. The spelling of the family surname (Salisbury vs. Salsbury) and cove (where the possessive has been dropped) is variable, and both spellings appear on tombstones in the local cemetery and even in Street's book, where he writes of both Ebenezer Salsbury and Ebenezer Salisbury (Street 1905). Currently, the US Postal Service accepts only Salsbury as the correct spelling even though the sign reads “Salisbury Cove” above the local post office door!

<sup>19</sup> Called “easel-wielders” by Cleveland Amory in his humorous discussion of the social life in Bar Harbor circa 1870 to 1940 (Amory 1973, p. 274)

end of the nineteenth century, Bar Harbor and its array of large hotels rivaled the more famous Newport, RI, as a summer playground for the rich and famous.<sup>20</sup> Moreover, a large number of the New York and Philadelphia gentry had built mansions (called “cottages” in the local parlance) in Bar Harbor, Northeast Harbor, and Seal Harbor (Vandenbergh and Shettleworth 2009, pp. 54–91). In these cottages, families like the Vanderbilts,<sup>21</sup> Hamiltons (grandson of Alexander), Pulitzers, McCormicks, Fords, and Rockefellers enjoyed the scenery and society of the island. The Dorr family from Boston also built a cottage in 1879, called “Old Farm,” where their son, George, enjoyed his summers. George B. Dorr grew up appreciating the beauty of MDI and became “the father” of what is now Acadia National Park. In the process, he recruited the Harpswell Laboratory to MDI.

In 1901, George Dorr (Fig. 2.2) received a letter from Charles W. Eliot, President of Harvard College and a summer resident of Northeast Harbor, asking him to join a small group of summer and year-round residents who were interested in preserving the tranquility that had brought them to MDI in the past half-century (Richardson 2005, p. 15). Dorr accepted and brought with him George Vanderbilt to meet with representatives of the Village Improvement Societies of Northeast Harbor and Seal Harbor, a group that included the noted Yale geologist Edward S. Dana and George L. Stebbins,<sup>22</sup> the father of G. Ledyard Stebbins, Jr., one of the

**Fig. 2.2** George Buckman Dorr (1855–1944). The “father of Acadia National Park” (Original in MDIBL Archives; used with permission)



<sup>20</sup> Tobias Roberts built Bar Harbor’s first hotel in 1855—30 years later there were 17 hotels in Bar Harbor, one of which could serve over 500 guests (Morison 1960). The tax base for Bar Harbor grew tenfold between 1880 and 1890 (Dorr 1997).

<sup>21</sup> In this case, George W. Vanderbilt II, who subsequently built the famous Biltmore Estate near Asheville, NC. Even after building Biltmore, Vanderbilt and his wife and daughter spent most summers at their cottage on MDI, until his death in 1914 (Vandenbergh and Shettleworth 2009).

<sup>22</sup> Dorr (1997), pp. 14–15. Richardson (2005), p. 15



leading evolutionary biologists of the twentieth century.<sup>23</sup> They formed a corporation, the Hancock County Trustees of Public Reservations, with Eliot as the first President and Dorr as the Vice-President (Dorr 1997). By 1912, the trustees controlled over 5000 acres, acquired by donations of property and money from friends of Dorr and other members of the corporation (Richardson 2005, p. 18). But it soon became clear that the property would be taxed if it could not be placed under governmental protection, and Dorr and his friends also wanted to preserve the acreage for future generations. Through tireless work and personal friendships and contacts, Dorr (with \$17,500 from John D. Rockefeller, Jr., to research land titles back to Cadillac's claims) was able to have the properties declared the "Sieur de Monts National Monument" in 1916 (*Op. Cit.*, pp. 19–20). The name was changed to Lafayette National Park in 1919<sup>24</sup> and to Acadia National Park in 1929. This was the first national park east of the Mississippi and the only one established entirely by the donation of private land (Richardson 2005, p. 21).

At the celebration of the original "Sieur de Monts National Monument," in 1916, Trustees' President Eliot stated that "I hope we are going to hear from a very competent source of the new interests which are to be developed in the wild life of the Island, its trees, shrubs, mosses and flowers, and the animals that can thrive here on land or in the sea" (Dorr 1997, p. 53). That "competent source" was George Dorr, who said: "It struck me what a splendid and useful thing it would be if we could provide down here, in a spot so full of biologic interest and unsolved biologic problems, so rich in various beauty and locked around by the cool northern sea, a summer home, however simple, for men of science working in the Government bureau, in the museums and universities. They would come down to work, as Henry Chapman and Charles Sedgwick Minot<sup>25</sup> used to do, on a fresh field of life, bird or plant or animal, and then go back invigorated, ready to do more valuable work the whole winter through in consequence of this climate boon and stimulating change" (Dorr 1997, p. 58). This theme was repeated in the remarks of another speaker that day, Dr. Alfred G. Mayer,<sup>26</sup> Director of the Department of Marine Biology of the Carnegie Institution in Washington, D.C.: "Our Government has, strangely, never established a permanent laboratory north of Cape Cod for our fisheries' benefit, yet no richer or more promising field for biological work exists than that offered by

<sup>23</sup> Smocovitis (1996). G. L. Stebbins was listed as a member of the MDIBL Corporation from 1932 to 1935 (MDIBL Annual Announcement and Report, 1932, 1933, 1934, 1935).

<sup>24</sup> Former President Theodore Roosevelt wrote a letter of support, and Dorr actually hand-carried the bill to the White House for President Wilson's signature (Dorr 1997).

<sup>25</sup> Minot was Professor of Histology and Embryology at Harvard's Medical School. He had been with Agassiz at Penikese in the summer of 1873; worked with the renowned physiologists Henry Bowditch (Harvard), Carl Ludwig (Leipzig), and Leon Ranvier (Paris); and had published a famous book, entitled *Human Embryology* in 1892. He summered in Seal Harbor, often taking walks with President Eliot, who summered in Northeast Harbor (Morse 1920).

<sup>26</sup> Mayer was a Trustee of the MBL at this point. The Department of Marine Biology of the Carnegie Institution was actually a laboratory in the Dry Tortugas, FL. As mentioned in Chap. 1, Mayer had worked at the HL in the summer of 1908 and knew Kingsley from both the MBL and HL.

these fruitful northern waters, nor more desirable and practical station for such work than offered by the tract of sheltered and deep-watered coast at Mount Desert now dedicated to the memory of Dr. S. Weir Mitchell” (Dorr 1997, p. 61).

The Weir Mitchell Tract was in Salisbury Cove. Silas Weir Mitchell “was almost a genius. His contemporaries believed that he was one, an opinion Mitchell came to share” (Earnest 1950, p. v). Among his many accomplishments,<sup>27</sup> Mitchell recruited William Osler (generally considered to be the father of modern American medicine) to the University of Pennsylvania in 1884<sup>28</sup> and was the most senior of the founding members of the American Physiological Society.<sup>29</sup> Like so many of his friends from Philadelphia, Mitchell summered in Bar Harbor in the late nineteenth century.<sup>30</sup> He arrived in Bar Harbor in 1891 “in order to avoid the new-rich taking over Newport” and became “the recognized leader of the walking and talking set which was the backbone of Bar Harbor Society.”<sup>31</sup> The specific connections between Dorr and Mitchell are unclear,<sup>32</sup> but Dorr and friends (called “The Wild Gardens of Acadia Corporation”; hereafter termed the WGA) had purchased land to the west of Salisbury Cove in tribute to Mitchell sometime after his death in 1914, and the speeches at the celebration of the Sieur de Monts National Monument 2 years later make it clear that the WGA was thinking about establishing a biological laboratory on the Weir Mitchell Tract in Salisbury Cove as soon as possible.

George Dorr recalled the specifics of the purchase of the land in Salisbury Cove and the recruitment of the Harpswell Laboratory sometime later:<sup>33</sup>

One of the things in which I have taken the greatest interest, the Park apart, has been the Marine Biological Laboratory at Salisbury—The Mount Desert Island Biological Laboratory. In searching for a good wharfage for our transit company, when we had been threatened with a trolley line upon our Ellsworth Road, in 1907, I had purchased for it and

<sup>27</sup> Mitchell was a pioneering clinical neurologist, famous for the “rest cure,” and much influenced by his surgical experiences in the Civil War (Carlson 1938, p. 475). He was also a famous novelist, publishing *Hugh Wynne* and *Ode on a Lycian Tomb* (Earnest 1950, p. v), and a poet <http://quod.lib.umich.edu/a/amverse/BAP5347.0001.001?view=toc>. Relevant to this history, one of Mitchell’s poems was entitled “Storm-Waves and Fog on Dorr’s Point, Bar Harbor.” To read that poem, go here: <http://www.poemhunter.com/best-poems/silas-weir-mitchell/storm-waves-and-fog-on-dorr-s-point/>. For Mitchell’s portrait by John Singer Sargent and more biographical material, go to <http://www.schwarzgallery.com/catalog.php?id=78&sort=plate&plate=4&menu=1&group=0>.

<sup>28</sup> Bliss (1999), pp. 130–131. And Osler wrote a reminiscence for Mitchell’s obituary in *The British Medical Journal* (Vol. 1, Jan. 10, 1914, pp. 120–121).

<sup>29</sup> Carlson (1938), p. 477 and Brobeck et al. (1987), pp. 13–21. Mitchell served as the second President of the APS.

<sup>30</sup> Osler actually visited Mitchell in Bar Harbor in 1910 (Earnest 1950, p. 215).

<sup>31</sup> Baltzell (2004), p. 221. Mitchell’s relative importance to Philadelphia society after the Civil War was noted by Baltzell: “S. Weir Mitchell—physician, psychiatrist, author, and conversationalist par excellence—became the First citizen of Philadelphia as no one had been since Benjamin Franklin and Benjamin Rush.” Baltzell (2004), p. 152.

<sup>32</sup> Dorr is not mentioned in either the Earnest biography of Mitchell (Earnest 1950) or a collection of Mitchell’s letters (Burr 1929).

<sup>33</sup> The typed and only moderately edited draft of an undated reminiscence by Dorr is in the Archives of the Bar Harbor Historical Society. It was also reprinted in a slightly edited form in Dorr (1998). Appreciation is expressed to Ms. Debbie Dyer for her assistance in locating the document.



ultimately took over myself, the old lava point by Emory Cove and this led me to acquaintance with the more extensive lava flow and points upon its eastern side which interested me as well as its projection into a deep channel of the bay. I found that this was the old Thomas Emery farm, part of the Emery district in the Island's earlier days with the old Emery graveyard on it and the old Thomas Emery farmhouse. The farm, the older generation gone, was for sale I found but one does not see the beauty of the situation from the roadway running past it, the boom was over and there were none to purchase it. The matter slept in my mind. Then came Dr. S. Weir Mitchell's death and there was talk among his many friends at Bar Harbor of putting up some memorial to him on the Village Green—a very subtle [sic] proceeding I thought it and proposed that something really interesting could be done instead.

Dr. Mitchell had been one of the executive committee of the Carnegie Institution of Washington and had told me of the interest he took in the Marine Biological Laboratory it had established at Key West, Florida,<sup>34</sup> and of the work which was being done there. This subject was one in which I took great interest myself and I proposed instead of the monument upon the Village Green a fund be raised to purchase the Old Emery Farm at Salisbury Cove with its good wharfrage opportunity, its picturesque character, its old farmhouse and pure water off it coming in a deep continuous channel from the open sea, water not liable ever to be contaminated and fit for scientific work, as Eastport had been where the elder [blank space] for a time had worked. I talked it over with Dr. Robert Abbe<sup>35</sup> and he became enthusiastic over it. Together we drafted an appeal for funds and got them, some 8000 dollars, sufficient for the purchase of the farm. It could have been sold soon after for a much larger sum. Then chance brought me in contact with Dr. (blank space),<sup>36</sup> ichthyologist at Princeton University and the biologist in charge of the Carnegie Institution work at Key West which Dr. Mitchell told me of an of and of his interest in it. I got him down to look our tract over and report upon its fitness. This was the summer of 1916. I was in Washington when he came but my house was open and one of my friends who had a power boat well adapted for such use took him out to dredge and make the study of our waters. Then I returned with the Sieur de Monts National Monument established and Dr. Mayer was present and spoke at the meeting held at the building of ARTs [sic] in celebration. He told at the meeting of the purpose of his coming and the great opportunity we had for carrying on under the best condition and important biologic study, comparable to the work he had himself been doing at Key West and that instituted by Professor (blank) on the Cape Cod Shore, representing an ocean climate differing radically from each other and out own. [Blank space] was echoed back to Princeton and I presently got a letter from Dr. Orlich [sic] Dahlgren, Prof. of Marine Biology at Princeton University, telling me of an organization incorporated several years before for doing similar work on Casco Bay and suggesting it would be a pity to divide the interest. I answered I quite agreed but that I thought the best course would be for them to join us at Salisbury Cove where the conditions were better and more permanently assured than they possibly could be at Casco Bay. A meeting with their corporation followed the following autumn. I agreed to turn over to them, incorporated under the title of the Mount Desert Island Biological<sup>37</sup> Laboratory, with

<sup>34</sup> The Carnegie Laboratory was actually on Loggerhead Key, one of the Dry Tortuga Islands, SW of Key West ([http://en.wikipedia.org/wiki/Dry\\_Tortugas](http://en.wikipedia.org/wiki/Dry_Tortugas)).

<sup>35</sup> Abbe was a noted surgeon and radiologist who summered in Bar Harbor and was called by some "the best loved summer resident." His interest in Native American artifacts resulted in the construction of what is now the Abbe Museum, with the help of his friends George Dorr and Charles Eliot ([http://en.wikipedia.org/wiki/Robert\\_Abbe](http://en.wikipedia.org/wiki/Robert_Abbe)). (See also <http://www.abbemuseum.org>.)

<sup>36</sup> The Editor of the Mayer reminiscence for Epstein (1998) thought that this unnamed Dr. was Alfred G. Mayer (Dorr 1998), but Mayer was identified soon thereafter in the document, so it is likely that someone else was Director of the Carnegie Institution Laboratory at this point.

<sup>37</sup> Interestingly, "Marine" had been in the original title after "Biological," but it was struck out in the document.

headquarters at the S. Weir Mitchell station at Salisbury Cove, a fund sufficient for their moving down with their equipment and for establishing wharfage and some simple buildings on the Emery land and work began the following summer. It had...to be carried on by annual contributions, with no endowment fund but it had continued for nearly 20 years with constantly increasing interest and should continue permanently for the work is endless. The Laboratory is a place for study and investigations, not for teaching. It is a research laboratory devoted to the advancement of our knowledge in a field that exhibits earliest forms of life which we have knowledge of and something of life's progress since in the multitudness invertbrae [sic] form which it has taken on. The workers at the Laboratory, a number of them now have homes of their own<sup>38</sup> at Salisbury Cove where they or the association have bought land, beautifully situated, outside the original Thomas Emery Farm, which is devoted to the scientific work, with the old Emery farmhouse turned into a dining hall where they all congregate at mealtime. It is all in delightful contrast to Bar Harbor's fashionable life and far more in keeping with the true character of the regions, rich, in natural interest and the beauty of great scenery. I have great hopes it will continue to get funds to aid it in experimental work for which the field is infinitely rich and the [n] become a permanent institution of the shore, a place where men of science from our eastern universities come and work and gain refreshment in their summer. It is a far better place for that than is Cape Cod.

It is clear that Mayer knew Dahlgren, both from associations at the MBL and the Tortugas Laboratory. Dahlgren had served as the Assistant Director of the MBL in 1899 (Lillie 1944, p. 258) and had worked at the Tortugas Laboratory in the summer of 1908.<sup>39</sup> It is also recorded that Charles Sedgwick Minot (mentioned in Dorr's speech at the Sieur de Monts National Monument celebration in 1916) visited the Harpswell Laboratory in 1909 (Williams 1985, p. 36). Importantly, Dahlgren had the personal pedigree to be accepted immediately into MDI society.<sup>40</sup>

The agreement between Dorr<sup>41</sup> and Dahlgren was finalized in the spring of 1921, in time for the necessary laboratory materials to be moved to Salisbury Cove for the

<sup>38</sup> This reminiscence must have been written after 1932, when several of the early MDIBL investigators had build homes on Spruce Point to the east of the Laboratory (see Chap. 3).

<sup>39</sup> Princeton University Faculty Activity Card 1920; in Princeton Archives

<sup>40</sup> He was the grandson of Admiral John A. Dahlgren, who is often called the "father of American naval ordnance" because he was Chief of the Union Navy ordnance department during the Civil War and designed a new type of cannon (named Dahlgren guns), two of which are mounted as a war memorial above the harbor in Bar Harbor. Ulric was named for his uncle, Col. Ulric Dahlgren, who had been killed six years before the younger Ulric's birth, during a Union cavalry raid on Richmond, VA, in 1864, while purported to be carrying orders for the assassination of Confederate President Jefferson Davis (Dahlgren 1872).

<sup>41</sup> Dorr also eventually donated land south of Bar Harbor to C. C. Little (then President of the University of Maine at Orono) in the mid-1920s for a field course in biology. By 1928, this field station was joined loosely with the MDIBL as the Dorr Station of the MDIBL, with Little (who was now President of the University of Michigan and on the Board of Trustees of the MDIBL) as its Director. In 1929, Little resigned from Michigan and founded the Jackson Laboratory (thereafter a leading institution in the study of mouse genetics) on the original Dorr site. From 1931 to 1941, the MDIBL advertised the "Dorr Station" as one of its scientific facilities. It was housed in buildings built by Dorr (and now next to the Jackson Laboratory) and was to provide space "primarily for the study of plants and animals in their natural surroundings and to meet a long-felt need of field-courses in biology" (The MDIBL 33rd Season, 1931, p. 4; in MDIBL Archives).

**a**

The initial laboratory building now housing the Weir Mitchell Station of the Harpswell Laboratory, though as yet comparatively small, has accommodations for ten research workers. It is now being provided with pumping apparatus and lighting facilities, and is the nucleus for the projected equipment, which, it is expected, will be fully adequate for carrying on most effective biological instruction and research in northern waters

**b**

**Fig. 2.3** (a) Early photograph of the first laboratory building on the Weir Mitchell Tract, built in the summer of 1921 [Original photo and text in Miner (1922)]. (b) Current view of the first laboratory building, now called Neal Laboratory (Photo taken in October, 2011 by the author)

summer season. A new lab building (Fig. 2.3), 48' by 24' and structurally similar to the lab building that was left behind in Harpswell, was erected that summer (Burger 1998, p. 24). Surprisingly, that first summer in Salisbury Cove saw a substantial increase in the scientific staff of what was initially called the Weir Mitchell Station

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The courses did not attract many students, so they were discontinued in 1933 (Burger 1998). Space for independent research at the Dorr Station, however, was advertised through 1941 (*Bull. MDIBL*, 1941, p. 9). Thereafter, the Dorr Station facilities were encompassed within the Jackson Laboratory.

of the Harpswell Laboratory (Anonymous 1921, p. 569). On site were 18 scientists and assistants, including Dahlgren and Conel<sup>42</sup> and Dahlgren's son Ulric, Jr.<sup>43</sup> Initially, Dahlgren maintained an administrative connection with Tufts by agreeing to continue to have Tufts represented on the Board of Trustees and to retain Tufts "in our circular in connection with our reorganization...and...grant the use of a free room in research to Tufts College each year for any one whom they may appoint to its use."<sup>44</sup> This was in return for Tufts' waiver of its claim on the Harpswell Laboratory. The proposition was agreed to by the Executive Committee of Tufts on July 11, 1921.<sup>45</sup>

But this agreement soon started to unravel. It appears that Dr. Conel was the Tufts representative on the Laboratory<sup>46</sup> Board of Trustees, and on December 3, 1921, President Cousens wrote Conel to tell him that he did "not quite like an expression in Dr. Dahlgren's letter. He is not absolutely definite as to the name of Tufts College appearing upon the stationery. If ever the question is raised in your presence as to how important the conditions expressed in this vote are, you are in a position to say that a suit will lie against the Trustees of the Laboratory to recover for the College the value of the building at Harpswell in case any of the conditions under which the College relinquished its rights of ownership are abrogated."<sup>47</sup> Moreover, the Trustees of the Laboratory had apparently decided that the Tufts Biology Department, not Tufts College, should appoint a summer investigator for the Mitchell Station. Conel, who had been working at the HL since 1914, was a member of Tufts' Anatomy Department, so he was concerned that he might lose his space to someone from the Biology Department.<sup>48</sup> So Conel suggested to President

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<sup>42</sup> The next year, even more scientists worked at the Station, including the pioneering embryologists, E. B. Wilson and Robert Chambers, who normally worked at the MBL (Lillie 1944). Wilson was introduced in Chap. 1; Chambers brought microdissection of individual cells to cell biology (Rappaport 1996, p. 30; Rappaport and Conrad 1998, p. 140; Rappaport, pers. comm). He worked at the Harpswell Laboratory in 1916 and the Mitchell Station in Salisbury Cove in 1922 (Williams 1985).

<sup>43</sup> Beginning a long tradition of having science-minded family members assist investigators at the MDIBL

<sup>44</sup> Letter from Dahlgren to President Cousens, June 29, 1921. Tufts University, Digital Collections and Archives. Medford, MA

<sup>45</sup> Typewritten copy of the agreement in Tufts University, Digital Collections and Archives. Medford, MA

<sup>46</sup> At this point, the Harpswell Laboratory at South Harpswell ceased to exist. The entire scientific and administrative infrastructure was now at the Mitchell Station in Salisbury Cove.

<sup>47</sup> Letter from Cousens to Conel, December 3, 1921. Tufts University, Digital Collections and Archives. Medford, MA

<sup>48</sup> Letter from Conel to Cousens, June 17, 1922. Tufts University, Digital Collections and Archives. Medford, MA. Conel had presumably voted against the motion that had been passed by the other members of the Board of Trustees.

Cousens that he demand that the Laboratory Trustees either change the wording from “Biology Department” back to “Tufts College” or return the deed to the South Harpswell property to the College.<sup>49</sup>

H. V. Neal was still Chair of Biology at Tufts at this point and worked at the Mitchell Station in Salisbury Cove during the summer of 1922.<sup>50</sup> He was reelected to the Laboratory Board of Trustees that summer, replacing Conel who had resigned, and so he wrote to President Cousens outlining the final decision of the Trustees: “the trustees voted not to<sup>51</sup> accept the release of the Harpswell Laboratory property under the conditions laid down in your communication. . . I did not attend the meeting. . . but I have been told that the Trustees are unwilling to bind themselves to the perpetual obligation to keep a representative of any institution upon the board of trustees. This declination throws the Harpswell property back upon the hands of the Trustees of Tufts to do with as they see fit. The property is saleable, and should bring in the market from \$1000 to \$1500.” Dahlgren confirmed this decision in a more official letter to President Cousens 3 weeks later<sup>52</sup> but added a more conciliatory note: “This does not mean that we have felt restive under this obligation to Tufts College or that we do not appreciate all that Tufts College has done for the Laboratory<sup>53</sup> in its infancy and early growth. We shall continue to place an account of this early relationship in the preface to our circular and we have re-elected Dr. H.V. Neal to our board of trustees. . . But we felt that if we were to maintain the interest of American Colleges and Universities in our institution, we

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<sup>49</sup> Letter from Conel to Cousens, June 29, 1922. Tufts University, Digital Collections and Archives. Medford, MA

<sup>50</sup> Neal did not appear on the list of summer investigators at the HL after 1916 (Williams 1985) but became a fixture at the Mitchell Lab and the MDIBL between 1922 and 1940. Neal taught a short-lived, undergraduate course in the summer of 1922, and his wife was paid \$300 to teach a “junior course,” which she did for many years (Marshall 1998). Over 80 years later, one of her students from the mid-1920s remarked that “she was just generally well informed as a naturalist and she was extremely good at explaining things in a way that was interesting. She would take us around to ponds, and we’d take a net and dig up what was there, and see lots of things wiggling, learn that some were beetles; some were bugs, and other things. But it gave me an initial start and interest in natural history, which I think in retrospect was important in my having become much more deeply interested at a later time in my life.” The student was young David Rockefeller, the current patriarch of the Rockefeller family (Miller 2011).

<sup>51</sup> There is an interesting typo in this letter: “not” is inserted above a caret between “voted” and “to accept.” Letter from H. V. Neal to President Cousens, August 23, 1922. Tufts University, Digital Collections and Archives. Medford, MA.

<sup>52</sup> Letter from Dahlgren to Cousens, September 12, 1922, written on stationery with “The Harpswell Laboratory, Weir Mitchell Station, Bar Harbor, ME” on the masthead. Tufts University, Digital Collections and Archives. Medford, MA

<sup>53</sup> Obviously, Dahlgren is referring to the original laboratory in South Harpswell.

could not afford to tie ourselves too closely to any one of them for the future.<sup>54</sup> We are making good progress that [Dr. Neal] can tell you all about and if we steer the institution nicely we will have a really fine Laboratory here in a very few years.” The President responded<sup>55</sup> that “it is a matter of regret that our suggestion with regard to the laboratory building at Harpswell, the representation of Tufts College on the Board of Trustees of the Laboratory, and the privileges of a room did not meet with approval. However, we quite understand your point of view, and with the assurance which Dr. Neal gives us of the cordial feeling which exists on all sides,<sup>56</sup> we have no misgivings as to the future. We hope to be closely identified with the work of the Laboratory. We trust that some Tufts man may be at work with you every summer, and we shall be deeply interested always in the success of the Laboratory.”

While this separation from Tufts was proceeding, Dahlgren was also negotiating the future of the Mitchell Station on MDI. In November, 1921,<sup>57</sup> he wrote to an attorney in Portland: “The lease was drawn up by one [member of the WGA], Mr. A.H. Lynam, a lawyer in Bar Harbor and when I objected to its, to me, transitory character he assured me that it was as good as a deed.” He went on to indicate that he had asked Lynam if one of the Laboratory’s members could become a member of the Wild Gardens of Acadia but had received no response to this request, or another to be sent a list of the members of the Association. Dahlgren had assumed that the membership included Dorr, Henry Eno, President Eliot, and some other “Bar Harbor summer people.” But he had learned “during the summer that the Wild Gardens is one of the projects of Mr. George B. Dorr, a very remarkable man and a great idealist. In fact he is the whole association and Mr. A.H. Lynam is the Attorney. When Mr. Dorr wants anything done he calls in whoever happens to be around [and] tells them to ‘sign here’! . . . Personally he is most kindly if autocratic and we are on the best of terms. This is not true of all my trustees. . . Assuming that the Wild Gardens is able to lease land I want to know exactly what our lease means to us and what powers and tenure it grants.” Dahlgren then went on to “ask a few leading questions”:

1. Under what conditions could they dispossess us of the land?
2. Could we take our building and pumping plant with us?
3. Could the Wild Gardens deed the land to the U.S. Government as part of the Lafayette National Park and would we then be controlled by the Park Management?
4. Are we a charitable institution subject to taxation of our lands? Our laboratories on this or rented lands? Dwellings used to house our personnel free of rent?

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<sup>54</sup> This decision meant that the Mitchell Station, and the subsequent MDIBL, would become one of the very few private marine laboratories—with subsequent financial consequences.

<sup>55</sup> Letter from Cousens to Dahlgren, October 3, 1922. Tufts University, Digital Collections and Archives. Medford, MA

<sup>56</sup> One must assume, with the exception of Dr. Conel!

<sup>57</sup> Original letter in MDIBL Archives



Dwellings used in the same way with a rental charged? A dining hall in which we board our people at cost and buildings, boats and apparatus used by us to furnish supplies to other institutions for a price in order to raise money to defray our expenses?

“My idea now is to ascertain our position and if our lease is insufficient to give us the requisite independence to secure a neighboring tract of land by purchase or gift. One gentleman has offered me such a tract and we have an option on another that would be suitable. The option runs to February 1, 1922.” The rest of the letter made clear that Dahlgren did not want to press the WGA but wanted to formalize the lease of land in Salisbury Cove and keep the Laboratory separate from both the WGA and the National Park. He also suggested a new name, in light of the fact that they had moved from Harpswell: “The Mount Desert Biological Laboratory.”

Nothing seems to have changed for the next 2 years, until Dahlgren wrote to Dorr on August 23, 1923,<sup>58</sup> when the separation from Tufts was complete. He stated: “After operating our Laboratory for nearly three years on the Weir Mitchell tract as leased to us by your Corporation we find that if we are to continue to grow and succeed, we must conduct our work on land to which we hold a **deed** [emphasis added]. Two courses seem possible under the circumstances. One is to move the scene of our activities over to the neighboring eighty acres of land which we bought last September from Mr. McCagg<sup>59</sup> and to abandon our lease from your Association. The other would be for you to give our Corporation a deed to the Weir Mitchell tract containing a protecting clause to the effect that should we cease to conduct a biological laboratory on the tract, it would revert to the Wild Gardens Corporation in 3 years; the same clause that Mr. Ogden put in his deed to us for the land on Otter Creek Harbor.”<sup>60</sup> Dahlgren wrote the letter because he was concerned that they may

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<sup>58</sup> Original letter in MDIBL Archives

<sup>59</sup> See below for more on this purchase.

<sup>60</sup> In January of 1923, the Ogden family had deeded six acres at the mouth of Otter Creek (at the south end of MDI, east of Somes Sound) to the Laboratory, providing greater access to the deeper waters of Frenchman Bay. This Ogden Memorial Station remained under the control of the Laboratory until 1930, when, presumably because of infrequent use, it was returned to the Ogden family. (Copies of both deed transfers are on file in the MDIBL Archives.) The 1928 announcement of the 30th season of the Laboratory described the Ogden Station as “a very conveniently situated tract of land on the shores of Otter Creek Harbor, consisting of about six acres of land with buildings and a short frontage of 195 f. on the harbor, which opens directly out into the sea. It is expected that provision will be made for the study of open-sea forms at this station” (Neal 1928, pp. 3–4). Apparently only Duncan S. Johnson and Alexander Skutch (both from Johns Hopkins University) made use of these facilities, but their studies resulted in significant publications that were pioneering in descriptive shoreline ecology (Johnson 1925; Johnson and Skutch 1928a, b). The transfer of the land back to the Ogden family got caught up in the open battle between the Ogden matriarch and John D. Rockefeller, Jr., who was in the midst of building what is now the Park Loop Road along the southern shore of MDI. The Ogden property (a part of which housed the Ogden Station) was one of the last links in the process. Mrs. Ogden was very much opposed to the new road, but the leaders of MDIBL (Bumpus, Neal, Dahlgren) were very supportive of Rockefeller, in large part because of his support of the early stages of the laboratory.

be taxed unless the land was designated for research, that he could not convince local friends to donate to the laboratory unless it owned the land, and that the personnel of the WGA might change and not be so supportive of the Laboratory. As always, he ended the letter on a conciliatory note: "This need of ownership is not prompted by any dissatisfaction with the Wild Gardens Association, which I much admire, but by the simple business reasons that I have mentioned above." Dorr responded within a month that the members of the WGA had met and agreed to deed the Mitchell Tract to the Trustees of the Laboratory, but the formal vote and transfer did not take place until December 1, 1923. At a meeting in the Jesup Memorial Library in Bar Harbor,<sup>61</sup> members of the WGA (Dorr, A. S. Rodick, and A. H. Lynam "being a quorum") "voted to authorize a conveyance in free gift to the Mount Desert Island Biological Laboratory of the property at Salisbury Cove." They stipulated that the Laboratory could not lease or sell the property in the future without the consent of the WGA and that the property would revert to the WGA if the Laboratory ceased operations "actively and creditably for the promotion of biological research" for three consecutive summers. Moreover, the WGA would "be permitted to place and maintain by the public roadside near the main entrance, a bronze tablet secured upon a granite rock or boulder, rehearsing the history of the acquisition of the land and its gift to the Laboratory, and rehearsing also the memorial nature of the gift in association with the late Dr. S. Weir Mitchell of Philadelphia, whose name it shall bear as a station of the Laboratory and its intended chief station." Surprisingly, the first stipulation was in place until the late 1940s, when one remaining member of the WGA was prompted to call a meeting with the MDIBL, the Jackson Laboratory, and Acadia National Park to formally relinquish any claim on the Mitchell Tract (Burger 1998, p. 30). The second stipulation was never a concern at least until the Second World War, when the Laboratory closed for a period.<sup>62</sup> Somewhat surprisingly, the bronze tablet to contain the memorial to Mitchell and short history of the Laboratory never appeared.<sup>63</sup> The agreement between the WGA and the MDIBL contained another clause, transferring title to what was termed the "Edwards lot," within the Mitchell Tract, directly to Dahlgren "until such time as the Laboratory may be in a position

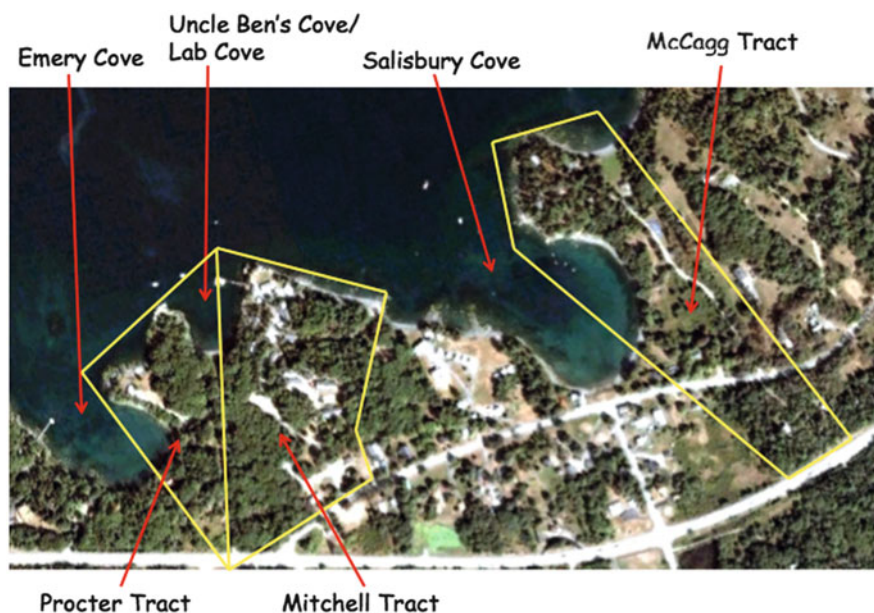
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Initially, they were unaware of Mrs. Ogden's strong feelings, so they voted to transfer the property back to the Ogdens in the summer of 1930. When they learned of her opposition to Rockefeller, they hesitated to deliver the resolution and deed to Mrs. Ogden. A flurry of letters (in MDIBL Archives) between the Laboratory leaders and their attorney ended with the delivery of the deed to Mrs. Ogden's attorney in late autumn, 1930. The road, of course, was completed a few years later. See Richardson (2005, pp. 63–91), for a more complete discussion of the building of roads on MDI by J.D. Rockefeller, Jr.

<sup>61</sup> Original minutes in MDIBL Archives

<sup>62</sup> This period will be discussed in some detail in Chap. 4.

<sup>63</sup> Although, in 1936, the MDIBL Trustees voted to authorize the Director, Dr. Cole, "to complete the plans and to erect such a tablet without any appropriation from the budget of the laboratory" (*Minutes, Mount Desert Island Biological Laboratory, 1926–1948*, p. 150; in MDIBL Archives)



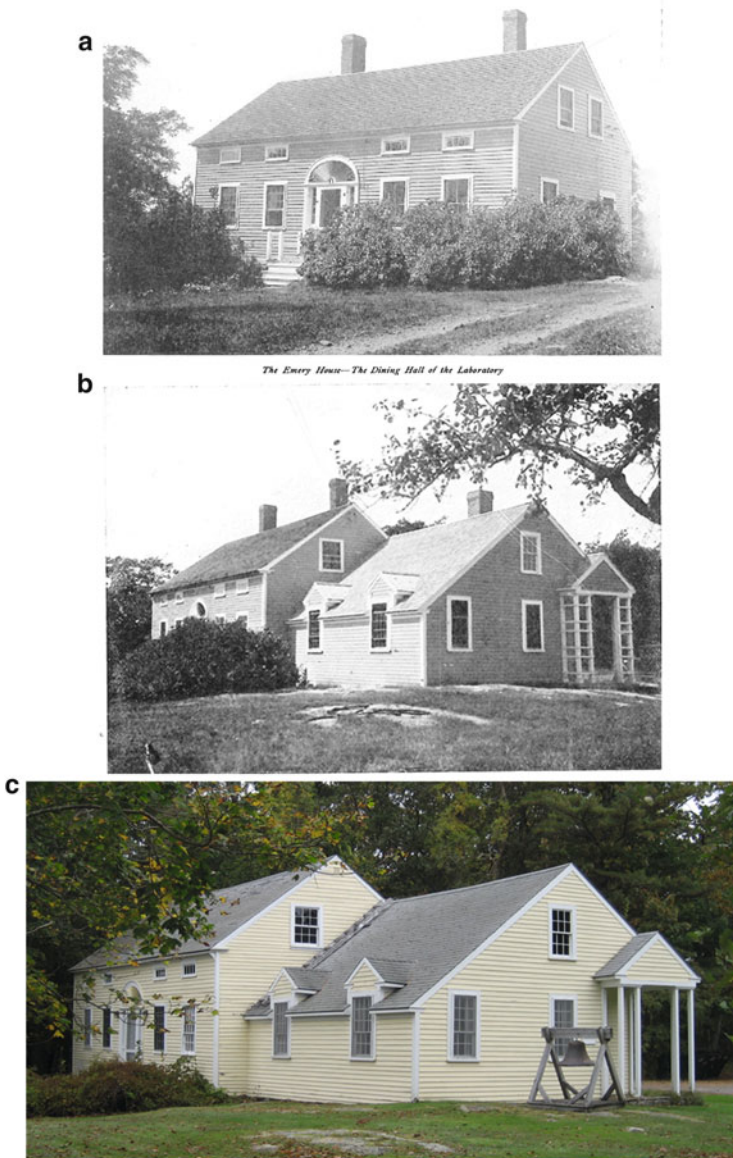
**Fig. 2.4** Satellite view of Salisbury Cove, Maine, with coves and tracts of interest to this narrative indicated (Taken from Google Earth image)

to take it off his hands. . . [and] subject to the outstanding mortgage which is to be assumed and paid by him.”<sup>64</sup>

Thus, by the start of 1924, the MDIBL had been created and held the deed to the Mitchell Tract and another 85 acres to the east, the McCagg Tract (Fig. 2.4). At the south end of the Mitchell Tract (50 m west of the farmhouse that Dahlgren renovated) stood the home<sup>65</sup> of the original owner, Benjamin Emery, which has been renovated over the years and still stands at the entrance to the MDIBL (Fig. 2.5). Emery has been a boatwright, with a boathouse on the shore of the small cove (originally called Uncle Ben’s Cove, now Lab Cove) that defined the western edge of the original Mitchell Tract. The boathouse fell into disrepair and collapsed 1 summer day in the 1950s (Burger 1998, p. 45). Just east of the Mitchell Tract, on the road to Bar Harbor was the village schoolhouse, the Eden Baptist

<sup>64</sup> This parcel was between the old Emery home and the schoolhouse, at the entrance of the Mitchell Tract, on the Bar Harbor Road (original Route 3), approximately where Eden I now stands. It contained an old farmhouse, which was remodeled by Dahlgren and occupied until his death in 1946. It burned down in June, 1949. (Unsigned document, entitled “Land and Residential Housing in Salisbury Cove,” dated 2/83, possibly written by Roy Forster or William Doyle, in MDIBL Archives)

<sup>65</sup> The structure is thought to date back to the early nineteenth century and displays a classic carved fan over the front door (McManus 1998).



**Fig. 2.5** (a) The Emery farmhouse before the 1929 addition. As indicated, it was used as the dining hall during the early years of the MDIBL. Original figure in the publication, *The Mount Desert Island Biological Laboratory, Thirty-first Season*, 1929, p. 1 (Original in MDIBL Archives; used with permission). (b) Emery farmhouse after the 1929 addition. Original figure in the publication, *The Mount Desert Island Biological Laboratory, Thirty-third Season*, 1931, p. 1 (Original in MDIBL Archives; used with permission). (c) Current view of the Emery farmhouse (now called Bowen Dorm). The bell was originally in the village schoolhouse, now Dahlgren Hall (Photo taken by the author in October 2011)



**Fig. 2.6** Looking east along Old Bar Harbor Road, Salisbury Cove, ME, ca. 1915. The village schoolhouse is the first structure on the left, followed by the Eden Baptist Church and two homes, the last of which was the parsonage for the church. The parsonage is now owned by the author. The Grange Hall is behind the trees, across from the Church, on the right. Original postcard owned by Dr. Margaret Vettese, Boston, MA, and Salisbury Cove, ME. Except for more trees, a paved road, the removal of the sidewalk, and an addition onto the schoolhouse (now called Dahlgren Hall), the scene remains relatively unchanged as of 2015

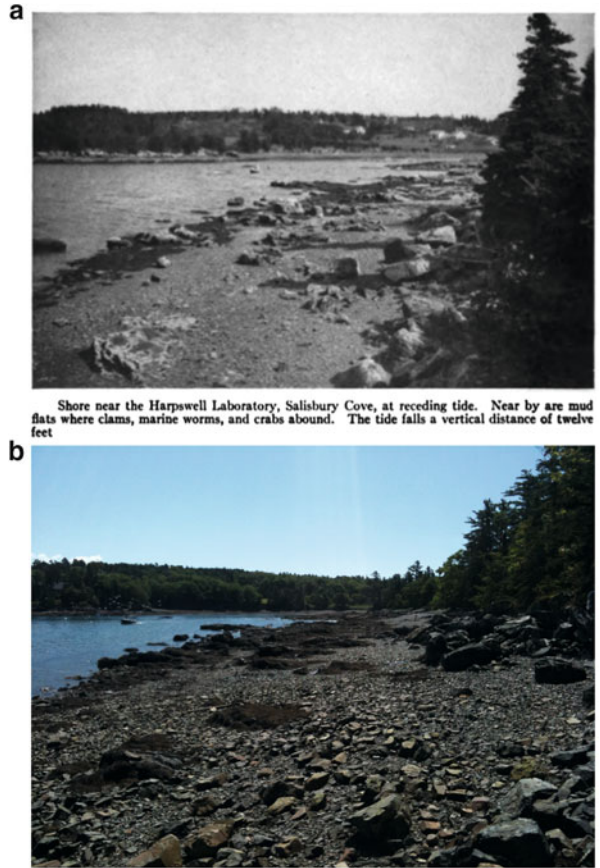
Church, the Grange Hall (across from the church),<sup>66</sup> and a few homes (Fig. 2.6). Salisbury Cove of this period was described as “a picturesque little fishing and agricultural village, a relic of a bygone time. Years ago it was famous as a ship-building community, and in the days of sailing vessels many a fine ship could be seen in foreign ports with ‘Salisbury Cove, Maine’ painted upon its stern. In these modern days of steam navigation the village has been outstripped and forgotten. . . nevertheless its excellent harbor. . . has preserved a naturally beautiful environment” (Miner 1922, pp. 47–48). The author of this early, relatively complete review of the Weir Mitchell Station, the Curator of Lower Invertebrates at the American Museum, Roy Waldo Miner,<sup>67</sup> goes on to say: “From a biologist’s standpoint, its situation is exceptional. The sheltered coast line on this side of the island is indented by a succession of coves, floored with sandy mud, and backed by a rocky rampart of cliffs, which jut out at intervals as picturesque headlands covered with spruce growth. The tide rises and falls a distance of twelve feet so that a considerable stretch of mud flat is laid bare at low tide, where marine worms, clams, crabs, and gastropods abound. The waters. . . afford good dredging, and the wharf piles of the extensive United States coaling station on the shore of the opposite mainland are crowded with marine algae, ascidians, sea anemones, and sea stars.

<sup>66</sup> The Grange Hall was given to the Eden Baptist Church in the 1980s and currently serves as their Parish Hall.

<sup>67</sup> Miner had worked at the Harpswell Laboratory in 1910, at the MBL in 1918 (Biol. Bull 36: 345–377, 1919), and at the Mitchell Station in 1921 (Williams 1985). He went on to author the standard marine invertebrate guide for the Atlantic Coast of the mid-twentieth century: *Field Book of Seashore Life*, Putnam 1950.



**Fig. 2.7** (a) Laboratory beach, looking east at mid-low tide. Picture and legend originally published in Miner (1922, p. 50). Used with permission from the American Museum of Natural History. (b) Same view, taken by author June 2011



The deep waters of Frenchman's Bay are alive with various marine fishes and Crustacea, including lobsters" (Miner 1922, p. 48). The article includes a photo of the beach in front of the Laboratory that appears strikingly similar to one taken in 2011 (Fig. 2.7). This very positive review of the biological potential of the new Mitchell Station, along with a much shorter, but equally positive, announcement in the important journal *Ecology* a year earlier<sup>68</sup>, must have helped recruitment of scientists to the fledgling laboratory.

The early years of the Mitchell Station (the MDIBL after 1924) were also helped measurably by three individuals: a well-connected, socially conscious suffragist

<sup>68</sup> News and Comment in *Ecology*, 2(3): 234, 1921. "Facilities will be offered for independent research workers, and a number of well-known biologists have signified their desire to go to the station this summer. The waters surrounding the island are extraordinarily rich in marine life. In addition, the laboratory has the advantage of being close to the Wild Life Sanctuary of the Lafayette National Park, which will afford an opportunity for studying the flora and fauna of one of the most interesting areas in the United States in its natural condition."



**Fig. 2.8** Louise DeKoven Bowen (1859–1953). Mrs. Bowen was a very influential lay member of the MDIBL Board of Trustees in the 1920s and 1930s (Image and short biography at <http://www.chicagotribute.org/Markers/Bowen.htm>)



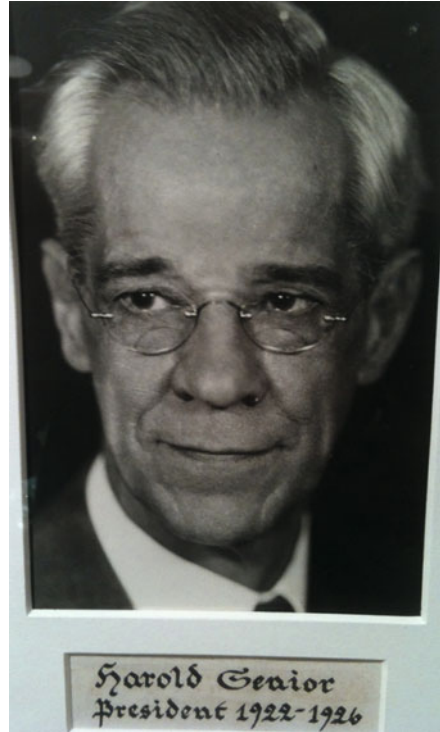
from Chicago, the Director of the Wistar Institute in Philadelphia, and a gentleman scientist, the grandson of one of the founders of Procter & Gamble.

Louise DeKoven Bowen (Fig. 2.8) was one of the social elite of Bar Harbor Society, the wife of a railroad magnate and a major supporter of Chicago's Hull House (Burger 1998, p. 28). Her summer "cottage" (Baymeath<sup>69</sup>) was just north of Halls Cove, some two miles east of Salisbury Cove. It is unclear who recruited Mrs. Bowen into the Mitchell Station family, but it was probably Dr. and Mrs. Neal. At a Trustee Meeting in September, 1922, Mrs. Bowen agreed to give the Station \$2500 for the purchase of the McCagg Tract. Another donor, Samuel Fels from Seal Harbor, contributed \$1000, and loans of \$1000 each were secured from Drs. Dahlgren, Neal, and Senior<sup>70</sup> to complete the purchase. Mrs. Bowen's gift,

<sup>69</sup> The original Baymeath was torn down by a subsequent owner, but a new home was built on the site in 2000 by the current Administrative Director of the MDIBL, Dr. Patricia Hand, and her husband, Victor. *Baymeath* is also the name of a memoir penned by Mrs. Bowen.

<sup>70</sup> Harold D. Senior, MD (Fig. 2.9) started working at the Harpswell Laboratory in 1912, returned in 1915, and was listed at the Mitchell Station in the summers of 1921 and 1922 (Williams 1985). He had been a Professor of Anatomy at the Wistar Institute and Syracuse University before joining the NYU College of Medicine in 1910. He held the first full-time professorship of Anatomy in New York City (Marshall 1998). He was President of the Laboratory Corporation from 1922 to 1926, succeeding Kingsley, who served from 1910 to 1922, and served on the Board of Trustees through at least 1936 (Bull MDIBL, 1936, p. 2). Upon his death in 1939, Homer Smith read a short

**Fig. 2.9** Harold D. Senior, first President of the MDIBL 1922–1926 (Original in MDIBL Archives; used with permission)



however, carried a condition. She insisted that her friends, Dr. and Mrs. Neal, be given, for life, the cottage and barn that stood on 2.5 acres on the Bar Harbor Road at the foot of the McCagg Tract (Fig. 2.10). Moreover, the Station/MDIBL was to maintain the property (Marshall 1998, p. 56). By the time Neal became Director of the MDIBL in 1926, he was also supplied a chauffeur-driven car<sup>71</sup> and supposedly a motorboat by Mrs. Bowen<sup>72</sup> (Fig. 2.11). In 1929, Mrs. Bowen once again helped the MDIBL by donating money to build an addition to the Emery home, which had

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memorial at the Annual Meeting, including a final sentence that any would appreciate: “By his quiet affability, unfailing courtesy and great sincerity, he turned his slightest acquaintances into lasting friends” (*Minutes, Mount Desert Island Biological Laboratory, 1926–1948*, pp. 168; in MDIBL Archives.).

<sup>71</sup> In the 1928–1929 budget, the chauffeur was paid \$350 per year, as was the collector. The Director was paid \$1200 (*Minutes, Mount Desert Island Biological Laboratory, 1926–1948*, pp. 63–64; in MDIBL Archives.).

<sup>72</sup> Called the *Dahlgren*, in honor of the former Director (Maren 1993). In reality, the Laboratory purchased the *Dahlgren* for collecting in 1930 (*Minutes of the Annual Meeting of the Corporation in 1930*; in MDIBL Archives.).



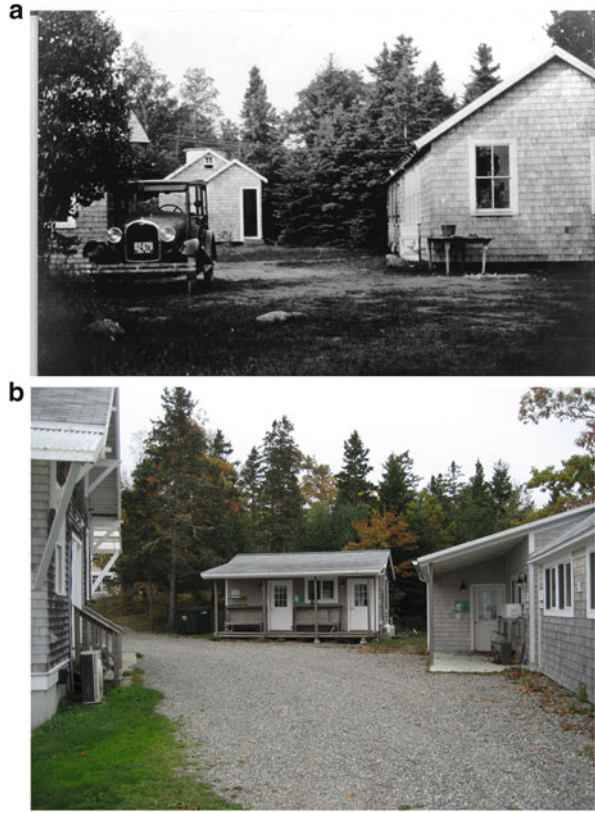
**Fig. 2.10** (a) Bow End in a 1949 Christmas card to the Sheldon family. The handwritten note from Mrs. Neal reads: “Come right in all of you. A warm welcome awaits you. A loving greeting. Best wishes for a Merry Christmas.” Scanned from an original from Wendy Sheldon; used with permission. (b) Bow End (ca. 1990). Mrs. Bowen had stipulated that this cottage and barn be given to Dr. and Mrs. Neal for life in 1922. After Mrs. Neal’s death in the 1960s, it became a male student dormitory. It now serves as a storage facility (Photo taken by Marty McManus; original in MDIBL Archives; used with permission)

been used as a dining hall for Laboratory investigators and assistants. It was named Bowen Hall in her honor in 1948<sup>73</sup> (Fig. 2.4).

Milton J. Greenman (Fig. 2.12) received his M.D. and Ph.D. from the University of Pennsylvania and became the Director of the Wistar Institute in 1905. He held

<sup>73</sup> Unsigned document, entitled “Land and Residential Housing in Salisbury Cove,” dated 2/83, possibly written by Roy Forster or William Doyle (in MDIBL Archives).

**Fig. 2.11** (a) View of laboratory buildings and Director's car, ca. 1930. The original laboratory building (now called Neal) is barely visible to the left of the car, the darkroom is in the middle, and Procter's two buildings are on the right (Original in MDIBL Archives; used with permission). (b) Similar view in 2011 (Photo taken by the author)



that position for the next 32 years, until his death, and was characterized as “the Institute’s real scientific founder.” Greenman was credited with changing the Wistar from “merely a museum” to a “center for scientific investigation... in the areas of ‘neurology, comparative anatomy and embryology’” (Lindsey and Baker 2006, p. 3). He is listed at the Harpswell Laboratory during the summer of 1914 and reappeared at the Mitchell Station during the summer of 1921 (Williams 1985, pp. 121 and 123). His administrative abilities must have brought him to the HL, because he served the HL, Mitchell Station, and finally the MDIBL as Treasurer from 1913 to 1927, when he resigned after a major change in administration. There is no remaining documentation of the impact that Greenman had on the Laboratory during its last years in Harpswell and early years in Salisbury Cove, but E. K. Marshall wrote that “Senior, Dahlgren, and Greenman were mainly responsible for the establishment of the Laboratory in Salisbury Cove, and guiding it for the first 6 years of its existence there.”<sup>74</sup>

<sup>74</sup> Marshall (1998), p. 57. Marshall was one of the MDIBL’s most famous researchers. See more detail in Chap. 3.

**Fig. 2.12** Milton J. Greenman in 1925. Greenman was Treasurer of the Corporation for the Harpswell Laboratory and the MDIBL from 1913 to 1927 (Original in the Archives of The Embryo Project Encyclopedia, MBL, Woods Hole, MA. <http://embryo.asu.edu/view/embryo:126659>)



William Procter (Fig. 2.13) had a much bigger impact on the Station/Laboratory in its first decade.<sup>75</sup> Procter was named for his grandfather who had started, with his brother-in-law James Gamble, the Procter & Gamble Company in 1837. William spent his early summers in Bar Harbor and graduated from Yale in 1894, majoring in business and chemistry. He took graduate courses at the Sorbonne but worked for the next 20 years at Procter & Bordon, a Manhattan securities firm he co-founded in 1902, and also served on the Board of Directors of Procter & Gamble. In 1917, with his wife's encouragement,<sup>76</sup> he left the corporate field and began graduate studies at Columbia. During that period, he studied under Alfred H. Sturtevant, one of Thomas Hunt Morgan's graduate students, as well as E. B. Wilson, generally considered as America's first cell biologist.<sup>77</sup> Procter spent at least one summer at

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<sup>75</sup> Except where noted, this biographical information is from Johnson (2009).

<sup>76</sup> On the Dedication page of one of his later publications (Procter 1933), Procter wrote: "To my wife EMILY without whose sympathy and encouragement I could never have re-entered the field of Natural History."

<sup>77</sup> See Chap. 1. Both Morgan and Wilson had worked at the Harpswell Laboratory, and Wilson was at the Mitchell Station in 1922 (Williams 1985).





**Fig. 2.13** (a) William Procter at Columbia University (ca. 1923). Procter was the second President of the MDIBL (1926–1927) (Alfred F. Huettner, photographer. Marine Biological Laboratory Archives; used with permission). (b) William Procter in his Rolls-Royce in front of “Old Main” at the MBL, Woods Hole, MA (ca. 1923), and collecting in Sippewissett Marsh, West Falmouth, MA (ca. 1921) (Alfred F. Huettner, photographer. Marine Biological Laboratory Archives; used with permission)

the MBL<sup>78</sup> with Alfred F. Huettner, who later would publish *Fundamental Embryology of the Vertebrates*. He was also influenced by Gary N. Calkins, who held the professorship of Protozoology at Columbia, the first of its kind in America. Calkins was known for cataloging the marine protozoa in the Woods Hole area, which, as we shall see, must have prompted Procter’s interest in biological surveys. Procter left Columbia in 1920, without a degree. The next year, his father died and left William and his two siblings each \$650,000, worth nearly \$8M in 2015 inflation-adjusted dollars. So, at 49, William Procter could retire and pursue his love for

<sup>78</sup> Procter is not listed as an investigator at the MBL during this period, but pictures of Procter and Huettner are in the MBL archives and some were published in Maienschein (1989).



biology. He bought a “cottage” in Bar Harbor, called “Corfield,” along Eden Street.<sup>79</sup> We have to assume that he knew George Dorr and other members of the Wild Gardens of Acadia, and he certainly knew Greenman, because he served on the Wistar Institute’s Board of Managers (Burger 1998, p. 28). By 1920,<sup>80</sup> Procter had secured a lease from the Wild Gardens of Acadia for a plot of land abutting the Mitchell Tract (Fig. 2.4) on the west side of Uncle Ben’s Cove, where he subsequently built a relatively small, shorefront cottage<sup>81</sup> and set traps for an insect survey that he had begun (Burger 1998, p. 29) (Fig. 2.14). Procter appears on the list of investigators at the Mitchell Station in 1921 (Williams 1985, p. 123), and by 1923 he was on the Board of Trustees of the Station and had suggested that a biological survey of the MDI region was needed (Dahlgren 1925a, p. 435).

By 1925, the Biological Survey was well underway and Dahlgren listed (*Op. Cit.*, p. 436) nine studies that had been undertaken by “members of the staff of the Mount Desert Island Biological Laboratory and Associated Naturalists.” These included surveys on the “primitive luminous organisms of Maine” and the “fireflies of Maine” by Dahlgren, as well as “the zonation of vegetation on a rocky coast” and “symbiosis between a green algae and an amphipod” by Alexander Skutch,<sup>82</sup> and

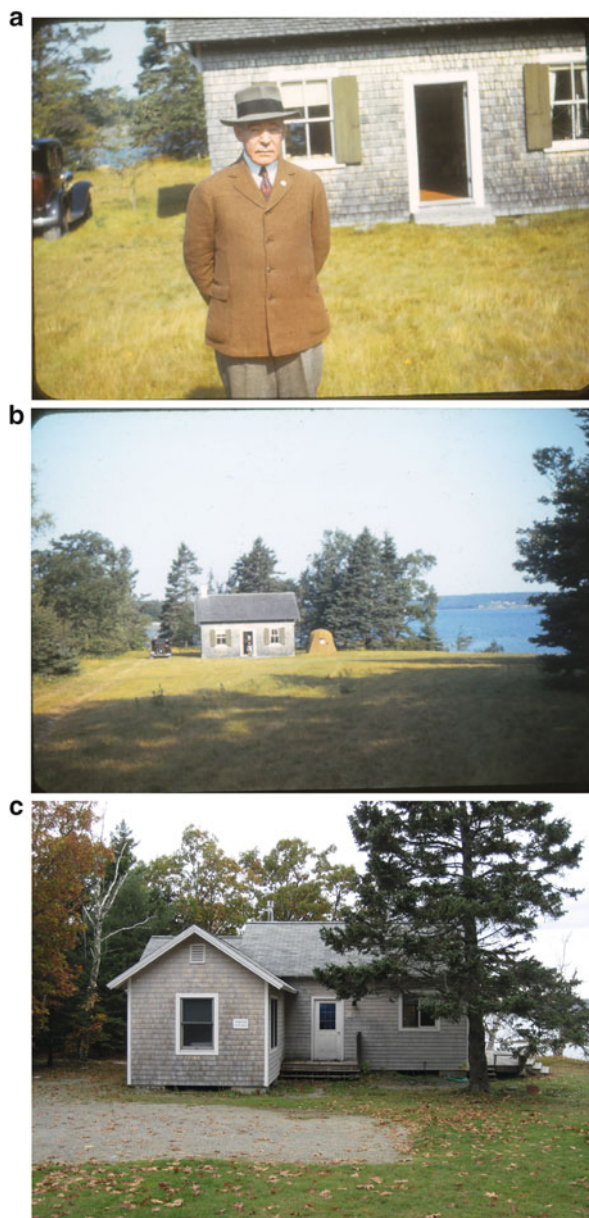
<sup>79</sup> In October of 1947, a massive fire across the northern half of MDI destroyed approximately one-third of the more than 200 “cottages” of the Bar Harbor elite. Corfield, however, was spared and was torn down much later for construction of the Bar Harbor Regency Hotel, which still stands on Eden Street (Route 3). The foundation of Corfield provided the footprint for the Walsh House at the Regency Hotel.

<sup>80</sup> Hancock County Registry of Deeds, Book 554, Page 137. This means that Procter was in possession of his plot of land about one year before the Harpswell Laboratory arrived at the Mitchell Tract in 1921.

<sup>81</sup> It is not clear when he built the cottage (presumably in the early 1920s), which he named *Penikese*, probably to celebrate his connection with the MBL and one of its precursors, Agassiz’s short-lived course on Penikese Island. After Procter’s death in 1951, the cottage became the property of the MDIBL. It was renovated and became a leasehold cottage for Dr. Roy Forster’s family for many years.

<sup>82</sup> Skutch received his Ph.D. in Botany from Johns Hopkins in 1928. His dissertation, however, was on the leaf anatomy of a banana species in Jamaica. His interest in the tropics continued until his death in 2004. After moving to Costa Rica in 1935, he became a leading figure in tropical ornithology and conservation, publishing over 40 books and 200 scientific papers. As described in his obituary in the New York Times: “He wrote more than two dozen books on birds, and he considered his most important work to be a series about the life histories of Central American Birds, published beginning in the 1950s. His best known books were “A Naturalist in Costa Rica” (1971) and “A Naturalist on a Tropical Farm” (1980). In his volumes, he described tanagers, flycatchers and several hundred species of tropical birds while observing the rich interplay of life on his 180-acre farm. ‘He cut a new path, by describing the birds in their tropical habitat, while they were alive instead of collecting them as specimens.’ . . . In addition to his books, Dr. Skutch wrote essays and philosophical studies in which he defended his theory of biocompatibility, or what he called ‘the harmonious association of diverse species.’” (<http://www.nytimes.com/2004/06/07/us/alexander-skutch-99-expert-on-central-american-birds.html>). See also [http://en.wikipedia.org/wiki/Alexander\\_Skutch](http://en.wikipedia.org/wiki/Alexander_Skutch) and <http://www.independent.co.uk/news/obituaries/alexander-skutch-6167525.html>).

**Fig. 2.14** (a) William Procter in front of his laboratory in Salisbury Cove (1940) (Photo taken by Charles P. Alexander. Original in Archives of the Smithsonian Institution; copied and used by permission). (b) Procter's lab (called Penikese) in Salisbury Cove in 1940 (Photo taken by Charles P. Alexander. Original in Archives of the Smithsonian Institution; copied and used by permission). (c) Renovated Penikese Lab, now called Forster Cottage (Photo taken by the author in October, 2011)



“the insect fauna of Mount Desert Island” by C. W. Johnson.”<sup>83</sup> Dahlgren goes on to note some of the more interesting findings of the survey, which encompassed some 50 collecting trips “that have resulted in the recording of about 250 forms of marine animals on form cards, with notes as to their location, abundance, breeding, food, enemies, parasites, migrations, etc.” He commented on the yearly variation in the abundance of the jellyfish *Aurelia aurita* (high in 1921, low in 1922 and 1923, increased in 1924) and on the apparent overgrazing of a tubularian hydroid by a nudibranch that produced a population decline in the former followed by a decline in levels of the latter: “The relationship here was that of a food supply and suppression. . .by overeating. . .followed by. . .starvation in the absence of the hydroids.” He also noted that a pelagic shrimp that was common only in relatively colder offshore waters was found in Frenchman Bay after the cold winter of 1922–1923.

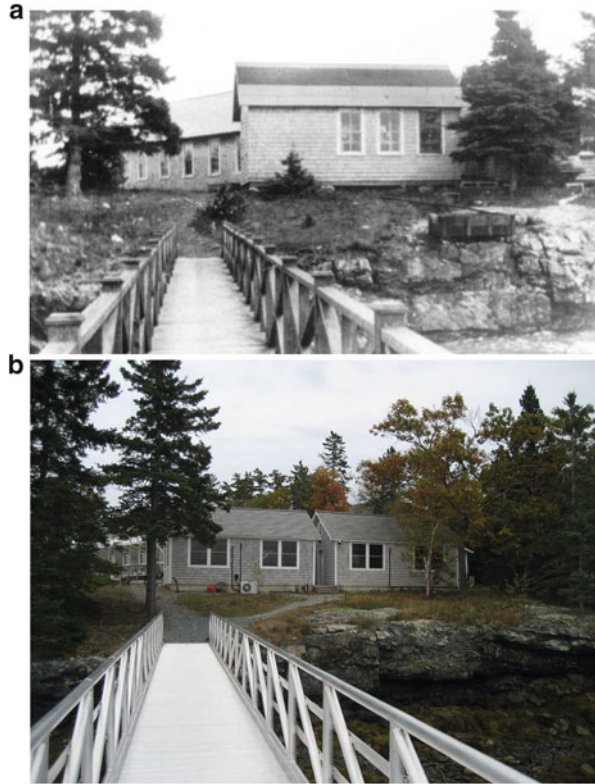
Procter also related “an interesting and undescribed breeding habit of a marine annelid worm [that] has been observed and recorded for several years and further study is necessary.” The worm showed a periodic (“about a month apart”) breeding cycle that “is so characteristic of the *Palolo* worm, *Odontosyllis*, *Nereis* and many other marine annelids. On the day when it breeds the red eggs are cast in untold numbers into the bottom waters and during a rapid development rise to the surface at about the middle of the day. The water becomes blood red and as the day lengthens, toward evening, the active little trochophore larvae suddenly become negatively heliotropic and move toward the bottom, leaving the water natural color again.” He ends by writing that “the breeding, seasonal succession and migrations of several of our important food fishes have been observed but not as yet seriously studies. This important feature must wait until the laboratory can secure a better boat than it now owns” (Dahlgren 1925a, pp. 435–436). The work of the Biological Survey took place in three relatively small structures that were built by Procter (on the northwest edge of the Mitchell Tract, overlooking Uncle Ben’s Cove) sometime around 1922 and “used exclusively for the survey under the direction of Mr. William Procter and his staff” (Burger 1998, p. 28).

One must assume that Dahlgren and others not specifically working with Procter were working in the original Laboratory building (called “Main” before 1948, when it was renamed the Neal Laboratory (Rand, 1944)<sup>84</sup>; see Fig. 2.3) at this point and

<sup>83</sup> Johnson’s study appears at Part I (247 pp.) of the “Biological Survey of the Mount Desert Island Region, conducted by William Procter, from the Mount Desert Island Biological Laboratory,” and published by The Wistar Institute of Anatomy and Biology, Philadelphia, 1927. The copyright was held by William Procter. The Preface notes: “For the purpose of furthering research in marine biology in this locality, the Mount Desert Island Biological Laboratory is situated on the Island at Salisbury Cove. The headquarters of the survey are at present at this station.”

<sup>84</sup> Neal died in an automobile accident in 1940 (Rand, 1944, p. 170). In the annual meeting of the MDIBL Trustees on August 12, 1948, they voted to name the original Lab building after Neal; the recently purchased schoolhouse after Dahlgren; the dining hall (original Emery home) after Mrs. Bowen; the Karst House across the street, Emery Cottage; and the laboratory built by the Blum-Halsey family after Halsey. (*Minutes, Mount Desert Island Biological Laboratory, 1926–1948*, p. 247, in MDIBL Archives)

**Fig. 2.15** (a) Original dock and Procter laboratories in 1924. Original Neal Laboratory in left background (Original in MDIBL Archives; used with permission). (b) Similar view in 2011. Kidney Shed in left foreground; Epstein Laboratory in right foreground (Photo taken by the author)



were able to use the ramp and dock<sup>85</sup> that was associated with Procter's buildings<sup>86</sup> (Fig. 2.15). The laboratory fees for the 1928 season were \$50 for a "research room" and board "for those connected with the laboratory and their immediate families"

<sup>85</sup> By 1924, a substantial pier, ramp, and dock into the cove were present (Fig. 2.15), apparently built by Procter (*Minutes, Mount Desert Island Biological Laboratory, 1926–1948*, p. 42; in MDIBL Archives). The dock had been built in 1922, probably the same year as the three small laboratories (*Minutes, Mount Desert Island Biological Laboratory, 1926–1948*, p. 220; in MDIBL Archives)

<sup>86</sup> Neal noted in an announcement of the 30th season of the Laboratory (1928) "the remaining three buildings on the Weir Mitchell tract were built and presented to the laboratory by Mr. William Procter, a generous patron of the laboratory since its removal to Mt. Desert Island. One of these with accommodations for four workers is supplied with aquaria and with running fresh and salt water. A second building is used as an experimental dark-room to test the effects of different kinds of light upon organisms. The third building is being used as a library until a more suitable fire-proof library can be built" (Neal (1928), p. 6). It is interesting to note that these kind words about Procter and his donation of the three buildings were written the year after Procter had left the laboratory because of an administrative shakeup. It appears, therefore, that at least Neal held no animosity toward Procter at that point. At present, these three laboratories, much renovated, are named the Kidney Shed, the Rappaport Lab, and the Epstein Lab. The Rappaport Lab was called "Union Station" for years, because Rappaport was from Union College.

was \$10 per week in the “laboratory dining hall” (now Bowen Hall; see Fig. 2.5). “Rooms may be found in the neighboring village at reasonable prices and . . . lodging will be provided on the Laboratory grounds in army tents on wooden bases at \$2.00 per week per person, two persons to a tent” (Neal 1928, pp. 7–8).

In the early years, the investigators at the Mitchell Station were assisted by the first collector hired by the Station, who happened to be a young woman. Muriel Case (Casey) was the daughter of a prominent family from Hartford, CT. The wife of the family next door, Elizabeth Leland,<sup>87</sup> had grown up in Salisbury Cove, and she heard that the fledgling Laboratory needed a collector. Casey “applied in person to Dahlgren, [who] hired her. The next spring he and the family picked her up in the Dahlgren auto, drove to Harpswell, and then to Salsbury Cove. Casey was collector for the first 4 years. She said that those summers were the most pleasant of her life. . . One year she lived alone in the tiny Dahlgren house, with no water or light or toilet, amidst barrels. Another summer, she tented alone on the lab shore near the rum-runners’ rendezvous. Her brother gave her a Colt for protection. . . one day Dr. Greenman took her to Bar Harbor to one of the fancy Bar Harbor coiffurers, where he paid for a haircut and shampoo. Dr. Downer, as she became, was tall, slim, blond. Her marriage produced no children. In her will Casey remembered the MDIBL.”<sup>88</sup>

In 1926, Procter was elected President of the MDIBL Corporation, presumably because of his large research operation and generous construction of three laboratory buildings and dock. But within a year, there had been a coup, and Procter (and Greenman) left the Laboratory forever. The background for the unexpected administrative change is still unclear, but before the Annual Meeting of the Corporation in August, 1927, Procter was on the slate as President, Greenman as Treasurer, and Neal as Director/Secretary. At the meeting, however, Hermon C. Bumpus<sup>89</sup>

<sup>87</sup> There is a Leland Cove west of Salisbury Cove, named after a family that had settled there in the early years. The most famous member of the family was A. Maxwell Leland, who was a landscape artist. (See <http://www.rubylane.com/item/230729-JB03265/MAXWELL-LELAND-1896-1983-fine-impressionist>.)

<sup>88</sup> Burger (1998), p. 42. Dr. Downer’s bequest was very important to the MDIBL in the mid-1980s. It will be discussed in greater detail in a later chapter.

<sup>89</sup> Bumpus was presumably chosen for his administrative abilities and extramural visibility, because he apparently was never an investigator at the Laboratory (Burger 1998), despite being involved since at least 1922 (Letter from Dahlgren to Trustees, May 10, 1921; MDIBL Archives) and on the Board of Trustees in 1927 (Marshall 1998). Bumpus was a well-known zoologist who had written a chapter on “Reptiles of the World” for Kingsley’s *Standard Natural History* in his senior year at Brown. He also had been a student at Alpheus Hyatt’s Annisquam Summer School in 1884, worked at the MBL in Woods Hole (and was a Trustee from 1897 to 1942), and directed the US Bureau of Fisheries Laboratory at Woods Hole. He also organized the Department of Biology at Brown and served as the first Director of the American Museum of Natural History from 1900 to 1910, where he was credited with the transition from a primarily research institution to one of public learning. After a few years at the University of Wisconsin, as “business manager” for the President, he accepted the Presidency of Tufts University in 1915, where he must have known Neal and the Harpswell Laboratory. His connection with MDI was the railroad and real estate magnate, Morris K. Jesup, who recruited Bumpus to the AMNH (Bumpus 1947). Jesup summered in Bar Harbor (e.g., NY Times, August 13, 1905) and the local library is named the M. K. Jesup Memorial



**Fig. 2.16** Hermon Bumpus, third President of the MDIBL (1927–1931) (Original in MDIBL Archives; used with permission)



(Fig. 2.16) from Brown University was elected President and Louise DeKoven Bowen was elected Treasurer.<sup>90</sup> Burger states: “Procter and Greenman resigned. For the remainder of his life Procter defamed the Laboratory and tried (successfully) to prevent contributions. His animosity was so strong that children of the Lab found a high and daring adventure by trespassing on his land next to the MDIBL. Adult workers were also very circumspect about even innocent trespass” (Burger 1998, p. 29). Burger felt that Procter’s lack of a graduate degree might have made some vote against him for President, or that some of the new investigators at the MDIBL “were in no mood to collect and classify invertebrates,” or that there was some concern that Procter might become “sort of an independent Co-Director with his own staff, independent of other restraints” because of the size and funding of the Biological Survey (*Ibid*). No matter the underlying causes, both the vote and the split were final.

Within a year, Procter was elected as a research associate of the Academy of Natural Science of Philadelphia (Anonymous 1928, p. 133). And he had built a sizable (50’ by 20’), summer-use laboratory on the shore near Corfield (Fig. 2.17)

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Library, built by his wife three years after his death in 1908. Weir Mitchell spoke at the dedication (NY Times, August 13, 1911), and a bronze bust of Mitchell (identical to one at the MDIBL) can be seen at the entrance to the main room of the Jesup Memorial Library. The AMNH and M. K. Jesup had been financial backers of the Peary Expeditions to the North Pole between 1895 and the successful trip in 1909 (Bumpus 1947).

<sup>90</sup> Neal was reelected Director (he was first elected in 1926) and served until 1931.



**Fig. 2.17** William Procter's laboratory at Corfield, near Bar Harbor (1933). The Laboratory is now Stewman's Restaurant at the Bar Harbor Regency Hotel. Original photos in Procter (1933); in MDIBL Archives; used by permission



Fig. 18 Laboratory from dock.



Fig. 19 Dock at high water from Laboratory.

and used that space (as well as a 16 t, 55 foot boat, the *Lophius*, which he had built) for the work of the Biological Survey (Procter 1933, pp. 45–57). For the next 18 years, Procter and his group produced six more parts<sup>91</sup> of the *Biological Survey of the Mount Desert Region*, totaling over 1500 pages (Johnson 2009, p. 21). Of interest to the subsequent history of the MDIBL, Procter described the life history of the anglerfish<sup>92</sup> (*Lophius americanus*) in Part 2 of the series and included excellent line drawings from the egg stage to 13-day-old larval fish (Procter et al. 1928). The final confrontation between Procter and the MDIBL took place a few years before Procter's death, when the WGA agreed to give the MDIBL unencumbered ownership to the Mitchell Tract. At the same time, they agreed to deed the Procter land over to the MDIBL upon his death. According to Burger,

<sup>91</sup> The first part, "The Insect Fauna," appeared in 1927, based on work while Procter was still at the MDIBL. The address for the work after 1927 was "From the Laboratory of the Biological Survey of the Mount Desert Island Region, Corfield, Bar Harbor, Maine."

<sup>92</sup> Also called the monkfish, goosefish, and fishing frog (Procter et al. 1928). See the following for a complete description of this species. [http://www.gma.org/fogm/Lophius\\_americanus.htm](http://www.gma.org/fogm/Lophius_americanus.htm).

Procter “exploded [and] his lawyers made dire threats, but no action was taken (Burger 1998, p. 30).” Procter’s land, including the cottage that he had built, became MDIBL property in 1951.<sup>93</sup> The Biological Survey that Procter envisioned and undertook over a period of 25 years remains the only complete survey of the marine fauna of the MDI region. Presumably because of this monumental work, Procter was awarded an honorary D.Sc. by the University of Montreal in 1936. He served on the Advisory Board of the Zoology Department of Columbia University and on the managing board of the Wistar Institute, was a Trustee of the American Museum of Natural History, and served on the Editorial Board of the *Annals of the Entomological Society of America*. Financial contributions from Procter may have facilitated some of these appointments, and his most famous contribution was to the Scientific Research Society of Sigma Xi (\$100,000 in 1950<sup>94</sup>) to establish the William Procter Prize for Scientific Achievement, which has been awarded annually ever since (Johnson 2009, pp. 19–20). Thus, despite a stormy relationship with the MDIBL, William Procter had an impact on Biology, which is still being felt today via the Sigma Xi Procter Prize. Moreover, the buildings that he had built in the middle 1920s are still in use in 2015, after numerous renovations.

Procter’s abrupt exit from the MDIBL in 1927 surely also had an impact on local fund raising for the laboratory. Marshall states: “Procter took every effort in the future to prevent contributions being given to the Laboratory” (Marshall 1998, p. 58). Neither the extent nor the result of these efforts is known for sure, but the MDIBL was certainly involved in what is now termed “development” in the 1920s, and Procter was a moneyed member of MDI society. As early as 1922, Director Dahlgren was writing to Ernesto G. Fabbri of New York<sup>95</sup> about his plans for “three biological lectures given under the auspices of the Laboratory for the public by prominent lecturers and on interesting subjects, illustrated by lantern slides or moving picture films. . .” to be given in Bar Harbor, Northeast Harbor, and Southwest Harbor. Dahlgren planned “if it seems advisable, to increase the number to four or five” and he suggested that “we should make this series a memorial to your brother Mr. Alessandro Fabbri<sup>96</sup> and I wanted to know if you would be willing to

<sup>93</sup> Burger described the property: “While insect traps were set, and emptied, and while publications did result, the Procter Tract was a sort of private preserve. On a beautiful piece of shore Procter built a sort of sportsman’s camp (Fig. 2.14). A device for skeet shooting was installed. The camp had a skillfully concealed repository for cases of genuine bootleg gin. This cache escaped all predators, animal and human, until a new owner discovered it. As Procter grew older, the Tract lay fallow. Procter clearly was in violation of the terms of his lease” (Burger 1998).

<sup>94</sup> \$900,000 in 2011, inflation-adjusted dollars

<sup>95</sup> Carbon copy of typed letter of January 8, 1922 in MDIBL Archives

<sup>96</sup> Alessandro Fabbri was best known for allowing the US Navy, during WWI, the use of the radio receiver facility that he had erected on his estate just north of Otter Cliffs. This was in exchange for a commission and command of the facility. It became the Navy’s best transatlantic radio receiver and “at the end of the War, it was the most important and the most efficient station in the world.” Fabbri was awarded the Navy Cross in 1920. After the war, he became a research associate in comparative physiology in the American Museum and “was extraordinarily adept in micro-cinema photography. In one of his films barnacles are shown, their fine, feathery appendages in motion,

help me endow the work. I want to raise \$10,000 for this purpose and thought that you would be willing to contribute a part of that and also ask some of the other members of his family to contribute.” Dahlgren goes on: “Of course we should invest this money in order to provide an annual income for covering the expenses of these lectures, and my idea was to invest it in living quarters on our laboratory property, to be rented to the research workers who come to the laboratory. Such living arrangements are much needed in our institution and would prove a sound and productive mode of investing the capital of this Memorial.” In 1924, Dahlgren wrote to Edward R. Harriman<sup>97</sup> in Washington asking for \$1700 “remaining to [secure for] running expenses for 1924.” He ends with the personal note that “Mrs. Dahlgren and I hope to see you and Mrs. Harriman again at Bar Harbor this coming summer.”

A month later, he wrote Rodman Wanamaker<sup>98</sup> asking for a “short interview either in New York or Philadelphia at your convenience to explain our work and needs...[we are] a charitable institution (tax free) under the laws of Maine with some of the most prominent biologists of the country as members of our corporation and on our board of trustees. Above all our laboratory is a real need to the biologists of the country as is shown by the applications by well known scientists for working space that I am receiving now, and by the list of men who are enrolled for this summer’s work.” Dahlgren played the Princeton card in this letter, signing it “Ulric Dahlgren, ’94,” because Wanamaker had graduated from Princeton in 1886. Clearly Dahlgren was socially connected, which must have certainly helped the fundraising for the Laboratory in its very early years on MDI.

Mrs. Bowen was also involved in fundraising. Her generic letter of late summer 1927 (written on Baymeath stationery)<sup>99</sup> sounds very modern: “The budget is a

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grasping for the food that may be floating within their reach. Another motion picture he secured is that of the embryo chick in the several states of its development. In this film the beating of the chick’s heart may be seen and, more marvelous still, the circulation of its blood even to the inclusion of the corpuscles.” Fabbri died of pneumonia in February, 1922 (Anonymous 1922). His father had worked at J.P. Morgan & Co. (Anonymous 1914).

<sup>97</sup> Copy of original, handwritten letter of April 24, 1924 in MDIBL Archives. Harriman was an investment banker and son of the railroad baron, Edward H. Harriman, and brother of the future statesman, W. Averill Harriman.

<sup>98</sup> Carbon copy of typed letter of May 26, 1924, in MDIBL Archives. Wanamaker was the son of Philadelphia department store founder, financier of the project that resulted in the Curtiss Model H flying boats, father of the Professional Golfers’ Association, and owner of a Palm Beach winter home that eventually became John F. Kennedy’s “winter white house.”

<sup>99</sup> Copy of typed letter of August 26, 1927, in MDIBL Archives, and handwritten copy by Mrs. Bowen (as Recording Secretary of the meeting) in the minutes of a special meeting of the Trustees on Sept. 15, 1927, in *Minutes, Mount Desert Island Biological Laboratory, 1926–1948*, p. 39; in MDIBL Archives. The letter was sent “to the residents of Mount Desert Island asking for cooperation and financial assistance.” Unfortunately, this was just after Procter had lost the election for President, so he also sent a letter to the same group, referring to Mrs. Bowen’s letter and stating: “The statement that the laboratory should be supported by the residents of the Island, is directly opposed to my views and what has been my policy. It is not a charitable institution. The last paragraph of the letter gives the impression that the Laboratory has been in need of funds. Such

small one and should be met by residents of the island. Will you give \$100 for this purpose? More, if possible, and less if I am asking too much. I know that you must agree with me that all who love the island must make an effort to retain on it the men and women who are opening our eyes to its wonderful fauna and marine life, and whose valuable discoveries are eagerly watched for by the scientific world.” By 1928, the letter (on MDIBL letterhead) was more specific and signed by Mrs. Bowen, President Bumpus, and Director Neal<sup>100</sup>:

A year ago a few summer residents of Mount Desert Island made it possible for a number of scientists to be invited to carry on their researches at the Laboratory in Salisbury Cove.

As a consequence a score of investigators from our leading universities have been quietly at work upon subjects, many of which bear directly upon human welfare. There are six investigators now working upon cancer and allied problems. Others are working upon questions of heredity and genetics, others upon nerve conduction and effects of drugs, toxins, etc., and several upon general biological subjects.

Those having the laboratory in charge desire merely to provide adequate facilities for those who may profitably make use of our varied marine life in the prosecution of their studies. They therefore invite you to share with them in what they believe to be a commendable undertaking.

Your check may be sent to the Treasurer, Mrs. Louis DeKoven Bowen, Bar Harbor, Maine.

Thus, the development efforts by Laboratory administrators and personnel (including lay members like Mrs. Bowen) were active and met with some success.<sup>101</sup> Land was also given to the Laboratory during this period. John D. Rockefeller, Jr. deeded the Karst home and property (Fig. 2.18), across the Bar Harbor Road from the dining hall (Bowen) in 1929 and an even larger tract, including much of a pond (now called Hamilton Pond) south of the Karst property in 1935 (Marshall 1998, p. 59).

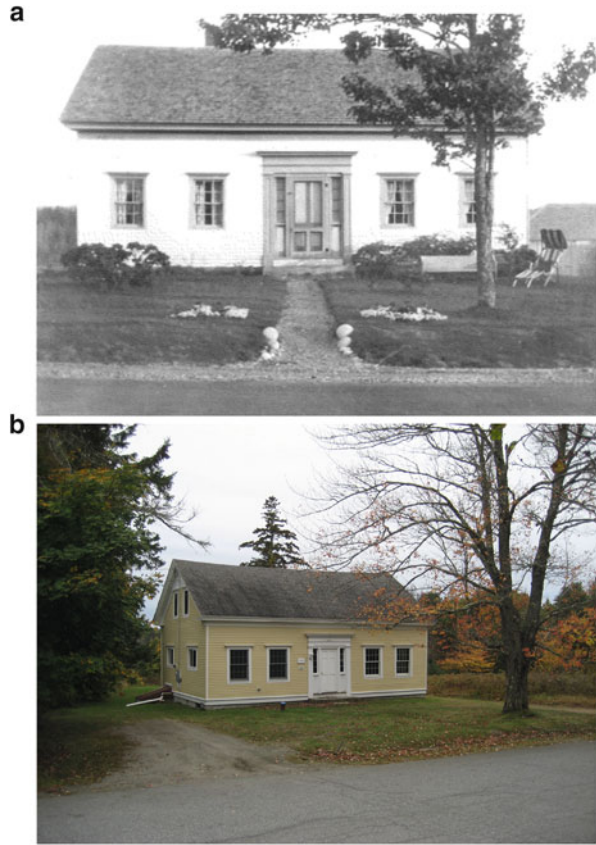
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is not the case. The amount of the 1927 budget was easily raised and ample funds for the maintenance and development of the laboratory were assured by persons interested in scientific research. The donors..wished the subscriptions conditional upon the laboratory being run solely for scientific research and without outside influence. It was the insistence that the laboratory be run as an independent research institution that caused the other trustees to vote Dr. Greenman and me out of office” (*Op Cit.*, p. 40). The Trustees then sent out a note to all concerned in complete support of Mrs. Bowen’s letter (e.g., “The Trustees wish to repudiate Mr. Procter’s letter with its erroneous impressions that the Laboratory does not need funds and its insinuations of outside influences” (*Op Cit.*, p. 41)). The result was \$3561 in donations (*Op Cit.*, p. 43). The final donations for the period of August 1927 to August 1928 totaled \$5636, 96% of the expenses for that year (*Op Cit.*, p. 47).

<sup>100</sup> This direct solicitation of donations from the Island’s summer society, usually accompanied with an invitation to the Laboratory picnic on July 4, would continue until the early 1950s, when the laboratory administration decided that local contributions were no longer necessary. The consequences of that decision would be felt, especially in the late twentieth century, when development started again in earnest.

<sup>101</sup> Budgets and donations varied during these years. By the 1932–1933 year, the budget was \$5897, with 40% coming from donations. (*Minutes, Mount Desert Island Biological Laboratory, 1926–1948*, p. 113; in MDIBL Archives).

**Fig. 2.18** (a) The Karst House ca. 1929 (Original in MDIBL Archives; used with permission). (b) The current, often renovated Karst home, now called Emery (Photo taken by the author in October, 2011)



Mrs. Bowen's solicitation letter also describes the research that was ongoing at the MDIBL in the late 1920s and suggests that the study of basic marine biology (and the survey work that had just ended with the departure of Procter) was now augmented by investigations that were more biomedical. This is certainly confirmed by the list of research publications from the Laboratory that has survived,<sup>102</sup> which also introduces scientists who will have a major impact on the research at the MDIBL for scores of years. Dahlgren had continued with his interest in bioluminescence by studying the light organ on the tip of a modified first dorsal fin in a deep sea anglerfish (Dahlgren 1928), but he also studied the sense of hearing in invertebrates, particularly the katydid (Dahlgren 1925b). There also were papers by

<sup>102</sup> The list of publications and copies of some of the reprints were bound together as *Contributions from the Mount Desert Island Biological Laboratory Weir Mitchell Station* in two volumes, both of which are in the MDIBL Archives.

**Fig. 2.19** Margaret and Warren Lewis (ca. 1940). Warren Lewis was the fourth President of the MDIBL (1933–1937). The Lewises made seminal discoveries in development, tissue culture, and photomicroscopy (Original in MDIBL Archives; used with permission)



W. H. Cole, R. W. Hegner, E. K. Marshall, and Homer W. Smith, investigators who will be introduced in the next chapter. But, of the 44 publications listed in Vol. II, fully 19 were from Warren H. and Margaret R. Lewis,<sup>103</sup> from the Carnegie Institution, who had been at Harpswell in 1916–1917 (Williams 1985, p. 122) and started working at the MDIBL in the summer of 1924 (Fig. 2.19). Both Warren and Margaret had very distinguished careers before their marriage and, thereafter, long careers in cell biology, usually, but not always, working together.<sup>104</sup>

Warren was a member of the 4th class (1900) of the relatively new Johns Hopkins University Medical School, where he was taught by the founders of the school, the famous “Four Doctors” of John Singer Sargent’s painting<sup>105</sup>: William H. Welch, William S. Halsted, William Osler, and Howard A. Kelly. After graduation, Warren joined the Department of Anatomy at Hopkins, where the pioneering embryologist, Ross Harrison,<sup>106</sup> was a senior member. In 1901, Warren published his first paper—a description of the pectoralis major muscle—and a subsequent paper (with Charles Barden, a colleague of Harrison’s) on the development of the muscles of the limbs and trunk was published as the first article in the first number of the new *American Journal of Anatomy*. During the summer of 1901, Warren

<sup>103</sup> Eight of the research papers had Margaret as the first author.

<sup>104</sup> Except where noted, this biographical and scientific review of the Lewises is distilled from Corner (1967) and Harvey and Oglivie (2000).

<sup>105</sup> To view the painting, go to [http://jssgallery.org/Paintings/The\\_Four\\_Doctors.htm](http://jssgallery.org/Paintings/The_Four_Doctors.htm).

<sup>106</sup> For a biography of Harrison, see Nicholas (1961).



assisted Jacques Loeb<sup>107</sup> at the MBL, where they found that the very toxic salt, potassium cyanide, when applied in dilute solutions, slowed but did not stop development of the eggs of sea urchins, presumably by slowing the oxidative processes controlling development. The next year, Warren worked with chick embryos in Nussbaum's laboratory in Bonn and demonstrated, for the first time, that pigment cells from the ectoderm entered the iris of the eye during development, lending support for the emerging "doubts of the specificity of the germ layers." Back in Baltimore, Warren broadened his research aims and wrote in 1905 that the problem was "to determine how far the various organs and tissues are dependent or independent of the various other tissues for their origin, differentiation, or growth." This was in response to the recent experiments by Hans Spemann<sup>108</sup> at the Kaiser Wilhelm Institute that demonstrated that the lens of the eye in the newt was induced from ectoderm by its juxtaposition to the optic cup during development. In fact, Warren's next experiments were "the first experimental proof of embryonic induction, i.e., the action by which an already differentiated tissue causes a contiguous undifferentiated tissue to develop new characteristics." He demonstrated that the embryonic optic cup could induce a lens from transplanted trunk ectoderm and that a transplanted optic cup could also induce a lens from in situ trunk ectoderm. In 1904, Warren was promoted from Assistant to Instructor to Associate Professor at Johns Hopkins. By 1914, the Department of Anatomy had promoted Warren into a second chair in the department, with the title of Professor of Physiological Anatomy. Warren's substantial reputation in morphology was confirmed when he was appointed the American Editor of *Gray's Anatomy*, the standard medical text. He oversaw the publication of the 20–24th Editions, spanning the years of 1918–1942.

Warren Lewis met Margaret Reed at Woods Hole, and they were married in 1910. Margaret received an AB from Goucher College in 1901 and then worked as a research assistant to Thomas Hunt Morgan at Bryn Mawr and at Columbia after he moved there in 1904. She also served as a Lecturer at Barnard College and New York Medical College for Women and as an Instructor in Biology at Columbia during the period of 1904–1909. Before her marriage, Margaret had published papers on crayfish regeneration and early amphibian embryology. Ross Harrison had pioneered tissue culture as a discipline by showing that a small sample of tissue from the central nervous system of young frog embryos could be cultured in frog lymph for days or weeks, and that axonal extensions grew out from the nerve cell bodies. The next year (1908) Margaret was successful in culturing mammalian cells

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<sup>107</sup> Loeb was a pioneer in both embryology and physiology, who worked for many years at the MBL (Lillie 1944).

<sup>108</sup> Spemann was awarded the Nobel Prize in Physiology or Medicine for his pioneering work on "embryonic induction by organizers." [http://nobelprize.org/nobel\\_prizes/medicine/laureates/1935/spemann-bio.html](http://nobelprize.org/nobel_prizes/medicine/laureates/1935/spemann-bio.html).

(bone marrow from a guinea pig) for the first time, while working in Rhoda Erdmann's<sup>109</sup> laboratory in Berlin. After they were married, both Margaret and Warren turned their interests to tissue and cell culture, the field for which they are best known. Working together, the Lewises were interested in examining single cells in culture, so they spent the first years developing a clear culture medium that contained a salt solution, agar, and bouillon—now commonly called Locke-Lewis solution. They also developed what became known as the “Lewis culture,” a small sample of tissue suspended in a drop of solution hanging from the underside of a transparent glass slip in a moist chamber on a microscope slide. This method was ideal for the study of cytological details, such as the nucleus, cytoplasm, and mitochondria and vacuoles, and also for physiological activities, such as locomotion and the contraction of smooth muscle cells.

In 1917, after their second year at the Harpswell Laboratory, the Lewises were recruited to the Carnegie Institution, avoiding the administrative duties at Johns Hopkins that were approaching Warren. Getting their laboratories up and running at Carnegie may have accounted for the delay in returning to marine work until the summer of 1924 in Salisbury Cove. In the ensuing years, Warren and Margaret Lewis made numerous fundamental discoveries, both together and separately. For instance, Margaret discovered that some early failures in tissue culture were due to fluctuations in the pH of the medium, together they determined that macrophages were derived from monocytes rather than separate cell types, and Warren found that tumor cells were permanently altered from the normal state. He also discovered what he termed “pinocytosis” or “cell drinking.” He found that certain cells, such as macrophages, fibroblasts, and sarcoma cells, actually extend their plasma membranes outward and “actively enfold and engulf droplets of fluid from the surrounding medium.” He proposed that pinocytosis “may be a physiologically important source of nutritive materials.” As his biographer states “in a rare flash of humor,” Warren wrote: “It seems probable that, instead of sitting around doing nothing much of the time, they [the macrophages] are always actively engaged in drinking tissues’ juices, digesting them, and passing the fluid and digestive products back into the tissue fluids” (Corner 1967, p. 340). Warren also used the emerging videomicroscopy techniques to produce the first time-lapse films of cells in culture, as well as popular films of cell movement, contraction, division of mammalian ova, blastocyst formation, and the development of the zebrafish egg.<sup>110</sup> After years of observing dividing, cultured mammalian cells, Warren proposed that “cytokinesis [cell division] and locomotion were caused by regional differences in a superficial

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<sup>109</sup> Erdmann was a pioneering tissue culture researcher. She became the Director of the Institute for Experimental Cytology in Berlin and was a founder and Editor of the *Archiv für Experimentelle Zellforschung*, one of the chief journals in tissue culture research. She also founded the International Society for Experimental Cytology (Anonymous 1935).

<sup>110</sup> The zebrafish has now become a model system for the genetics of tissue and organ development, as well as regeneration. It is now being used extensively at the MDIBL. See [http://zfin.org/cgi-bin/webdriver?Mlval=aa-ZDB\\_home.apg](http://zfin.org/cgi-bin/webdriver?Mlval=aa-ZDB_home.apg).

gel layer present on all cells. . .conjectures concerning animal cell division [that] were closer to the mark than those of any of his contemporaries.”<sup>111</sup>

A brief listing of some of the titles of the Lewis’s papers that are documented in Vol. II of the *Contributions from The Mount Desert Island Biological Laboratory Weir Mitchell Station* in 1929 demonstrates both the breadth of their research and its biomedical implications: the origin of the phagocytic cells of the lung of the frog, a study of the mononuclears of the frog’s blood, the epithelioid cells of tuberculous lesions, the engulfment of living blood cells by others of the same type, the formation of giant cells in tissue cultures, macrophages in sterile inflammation of the deep fascia of the rat, the formation of giant cells in tissue cultures and their similarity to those in tuberculous lesions, migration of neutrophilic leukocytes, and a simple method for drawing blood from the heart of a fowl. By 1935, in the *Bulletin of the Mount Desert Island Biological Laboratory*,<sup>112</sup> Margaret was reporting a study on the “pituitary gland of certain fishes by means of tissue cultures” and on “studies on the spontaneous carcinoma of the mammary glands of mice,” and Warren reported on “roller tube cultures of rat tumor cells and some results.” For his extensive, groundbreaking work, Warren was elected to the National Academy of Sciences in 1936 and given honorary membership in the Royal Microscopical Society of London, the Société de Médecine of Ghent, and the Academia Nazionale dei Lincei of Rome. He was also the President of the International Society for Experimental Cytology from 1939 to 1947. After retirement in 1940, Warren accepted an invitation to join the Wistar Institute, where he continued working, along with Margaret,<sup>113</sup> at “a gradually diminishing pace.” Four years before his death in 1964, Warren was awarded the triennial Ross G. Harrison Prize of the International Society of Cell Biology, an honor “doubly pleasing because it linked his name with that of his old friend and fellow-pioneer in tissue-culture research” (Corner 1967, p. 344). Margaret died 6 years later, one of the last of the investigators who had worked at the Harpswell Laboratory.

At the end of 1930, the administrators of the MDIBL nearly made what might have been a fatal mistake. In a letter to MDIBL Director Neal, dated December 17, 1930,<sup>114</sup> C.C. Little (then Director of the Jackson Laboratory and member of the MDIBL Board of Trustees<sup>115</sup>) made reference to a letter he had received from Neal 2 days earlier. The Neal letter (also apparently sent to MDIBL Trustee Louise

<sup>111</sup> Rappaport and Conrad (1998), p. 141. See also Rappaport (1996), pp. 34–35.

<sup>112</sup> *Bull. MDIBL* 1935: 28 pp

<sup>113</sup> Margaret retained her connection with the Carnegie Institution after she moved to Philadelphia.

<sup>114</sup> Copy in MDIBL Archives.

<sup>115</sup> As outlined earlier in this chapter, Little had taught summer field courses at what was then the Dorr Station of the MDIBL in the mid- to late 1920s and was elected to its Board of Trustees in 1928 (Rader 2004) and served until 1936 (*Bull. MDIBL*, 1936, p. 2). He was also President of the MDIBL between 1931 and 1933, at the same time that he was the Director of the Jackson Memorial Laboratory. Little is best known as the founder of the Jackson Laboratory (Rader 2004), but, unfortunately, thirty years later, he became relatively infamous as an apologist for the tobacco industry. See Rader (2004, p. 253), Mukherjee (2011, p. 253), and Little (1956).

DeKoven Bowen) had suggested that the MDIBL should consider an affiliation with the MBL, which John D. Rockefeller, Jr., supported, presumably because he had been a patron of both institutions.<sup>116</sup> Little argued that the MDIBL should remain independent for five reasons: (1) the research interests of the MDIBL included freshwater and terrestrial organisms, which were not investigated by MBL scientists; (2) becoming a small “dependent part” of a much larger organization that was 200–500 miles away did not make administrative sense; (3) the MBL Trustees who were also MDIBL Trustees had shown little interest in attending meetings at the MDIBL<sup>117</sup>; (4) an MBL Board of Trustees might not be very interested in the local problems of the MDIBL; and (5) the support of the MDIBL is “the result of the generosity of individuals who have a great interest in the Island and the development of its individuality and little or no interest in the Marine Biological Laboratory at Woods Hole.” Little went on to say “What the arrangement really amounts to as I see it is selling the control of the laboratory in return for assured financial support.” Neal then wrote Mrs. Bowen on the 22nd of December,<sup>118</sup> enclosing a copy of the Little letter. He suggested that “the arguments in favor of an affiliation with the Woods Hole Laboratory seem to me stronger than the objections. . . . At present we have no assured income but must depend upon annual and individual solicitations to meet current expenses. There seems to be no better prospect for permanent endowment than money coming through Mr. Rockefeller. . . . [but] it is obvious that in view of such opposition to the project, it is undesirable at this time to discuss such a project with any member of the Board of Trustees of the Woods Hole Laboratory. The question, however, is one which seems to me worth of consideration by the Executive Committee of our Laboratory. At its next meeting there might be held an informal discussion of the pros and cons.” There is no record of subsequent discussions or votes, so the proposal must have been dropped. Fortunately, Rockefeller apparently had no ill feelings, because he deeded a large piece of land, south of the MDIBL property at that point, to the Laboratory in 1935. Thus, ironically, it appears that the founder and Director of the Jackson Laboratory, who was also on the MDIBL’s Board of Trustees, saved the Laboratory from being subsumed by the MBL.

Before moving to the next chapter, where the other major players in the first decades of the MDIBL will be introduced, it is interesting to get a glimpse of Harpswell life, as well as MDIBL life of the 1920s and 1930s, outside of the Laboratory proper. This is made possible by the very personal reminiscences of

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<sup>116</sup> In fact, Little suggested that “It has long been in the back of Mr. Rockefeller’s mind that the Mt. Desert Island Biological Laboratory should be combined with the laboratory at Woods Hole.”

<sup>117</sup> He was presumably referring to Frank R. Lillie, who was an MDIBL Trustee from 1921 to 1926.

<sup>118</sup> Copy in MDIBL Archives.

the Lewis children, as told primarily by the eldest daughter, Margaret.<sup>119</sup> Some of young Margaret's first memories were on a boat out of Harpswell, on the way to a summer picnic. "Soon Professor Ulric Dahlgren, the noted zoologist from Princeton, sat beside [me], unraveled a handy end of rope and, using three strands, taught [me] to braid. When the crew from South Harpswell reached their island destination, the rocks were too big for little legs, so the botanist Professor Duncan Johnson from the Johns Hopkins University,<sup>120</sup> took [me] up on his shoulders with [my] feet in his rucksack." Eighty years later, she could still "remember...the feel of trowels against my feet" (Lewis et al. 1998, p. 73). The next summer, 1916, their mother kept Margaret and her brother, Warren, in Harpswell until November, because of the polio outbreak in Baltimore. "The days were chilly, sometimes gray, even snowy, but not cold enough to prevent Warren and me from playing near the doctor's house where we stayed, and the inn next door where we had our meals, and in the deserted fields [*Ibid*]."

They arrived in Salisbury Cove in 1924, when Margaret was 13, staying the first summer in an old farmhouse on the other side of the Bar Harbor Road, west of the Procter Tract. The laboratory for their parents was Hall House (Fig. 2.20), an old cottage just below the Neal cottage and barn, on the west side of the McCagg Tract.<sup>121</sup> Margaret described how one morning a local boy appeared with a bucket that contained an eel for her mother to use in her research. "How could she draw blood from that writhing slimy creature? Not knowing what to do, she poured off the water, spread newspaper on the lab porch, and onto that slid out the eel. It made a few twists and turns and promptly encased itself in the newspaper, neat as could be. No trouble then to draw blood" (Lewis et al. 1998, p. 79). The boy was the young David Rockefeller, whose attendance in Mrs. Neal's summer course has already been described.<sup>122</sup> Mrs. Bowen hired Margaret and her brother to pick apples in her orchard, but they lost the job after 1 week, when friends of Mrs. Bowen "teased her about hiring eleven and twelve year-old children when she so strongly supported the child-labor laws" (Lewis et al. 1998, p. 75). There were

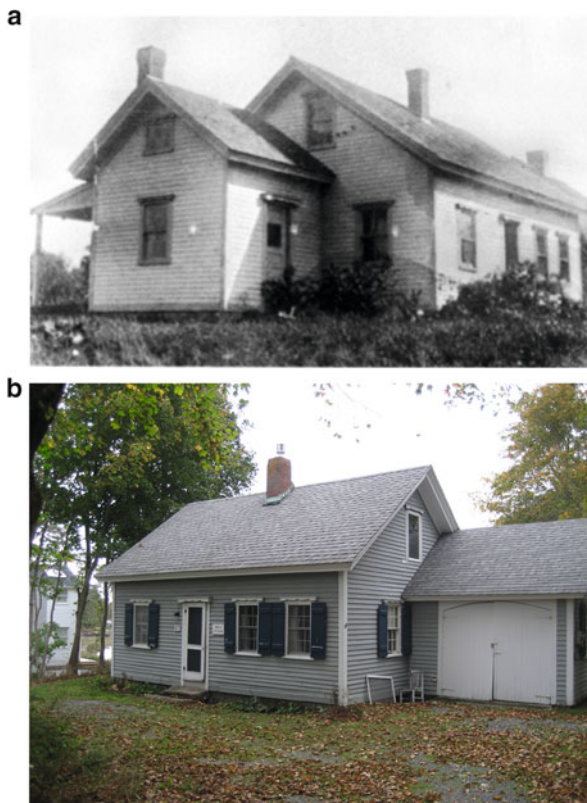
<sup>119</sup> Margaret Nast Lewis, received her Ph.D. in Physics from Johns Hopkins in 1937, worked on radar semiconductor detectors during WWII, and was on the staff of the Harvard Observatory from 1961 to 1986. Warren R. Lewis was a chemical engineer who worked at the Hanford, WA nuclear project, and Jessica Lewis received an M.D. from Johns Hopkins and was the first woman resident at Harvard's Thorndyke Laboratory, where she met her future husband, Jack Myers, M.D., who served as President of the MDIBL from 1975 to 1978. The reminiscence is in Lewis et al. (1998).

<sup>120</sup> As we saw earlier in this chapter, Duncan Johnson continued to work at the MDIBL in the 1920s on zonation in shore plants, expanding on his earlier work at Cold Spring Harbor (Johnson and York 1915). He had received his Ph.D. from Johns Hopkins in 1897 and served as Director of the Johns Hopkins Botanic Gardens and Professor of Botany from 1906 until his death in 1937 (<http://ead.library.jhu.edu/rg04-070.xml>). He was presumably Alexander Skutch's (see above) major professor at Johns Hopkins.

<sup>121</sup> The Lewises apparently were the only research tenants of this structure. It was later used as a rental and leasehold by various MDIBL investigators. The author and his family rented the cottage (called Doyle Cottage thereafter) between 1991 and 2004.

<sup>122</sup> For an autobiography of David Rockefeller, read Rockefeller (2002).

**Fig. 2.20** (a) The Hall House (ca. 1925; from the SW), which served as the laboratory for the Lewises until the Lewis Laboratory was built on MDIBL property in 1939 (Original in MDIBL Archives; used with permission). (b) Renovated Hall House (from the SE), now called Doyle Cottage (2011) (Photo taken by the author)



“many wonderful times: picnics, overnights at Long Pond, sails, dances, costume parties at the Grange Hall,<sup>123</sup> or a combination of as many events as 24 h would allow. Some costumes were memorable: one time father turned up as prehistoric Indian in an old red blanket with many clam-shell necklaces, and Homer Smith came as a organ-grinder with a real live monkey” (Lewis et al. 1998 p. 76). From 1925 to 1928, the Lewises rented a “tiny cottage, the Kenlois, on the hill” just to the east of the McCagg Tract. Below them was a large home, still standing, that was owned by the Youngs. Margaret writes: “We came to know the Youngs; and to hear Mr. Young tell of living, as a young boy, with his family on board a clipper ship when his father sailed the waters of the far Pacific islands.” She goes on: “The hill

<sup>123</sup> The Grange Hall was actually the first dining room for the Laboratory, during the mid- and late 1920s. Doris Karst, whose family had lived in the house across from the Emery House (became Bowen Hall), served the young students and Dr. and Mrs. Dahlgren, in this early dining hall. Seventy years later, Doris Karst remembered that the forgetful Dahlgren often asked her if he had eaten his dessert yet. She also remembered that Dahlgren often drove down to the post office in Salisbury Cove, walked home, and then later asked his wife where his car was. (Doris Karst interview, 1/18/96, in MDIBL Archives. Appreciation is expressed to Mary Rush for bringing this recording to my attention.).



had a wide view of Salisbury Cove and Eastern Bay, but the house itself was very small. There was running water—from one faucet in an iron sink. Of course, there was no bathroom, or flush toilet. The outhouse was down a path in the woods; which was fine except on that unfortunate night when frequent trips there were necessary, and it rained” (*Op. Cit.*, p. 77).<sup>124</sup>

The children of the MDIBL were also involved in the lab’s fundraising efforts. “Mrs. Neal gave tea parties on the wide deck of Bow End,<sup>125</sup> where the girls of the laboratory families helped toast the rolled marmalade sandwiches, and serve all the goodies. These teas were held to broaden the Laboratory’s circle of friends on the Island, (put crassly: to snare the moneybags)” (Lewis et al. 1998, p. 78). The MDIBL “not only established bonds between people, it presented speakers in other fields; and, under its auspices, in 1927 Harlow Shapley, the Director of the Harvard College Observatory, gave a lecture in the church<sup>126</sup> on Black Nebulae. This drew friends from other parts of the island. Miss Jane Addams<sup>127</sup> sat in front of me. Why do I remember? To my dismay, the varnish along the tops of the recently refurbished pews left a dark line across the back of her light gray dress. What a thing to happen!” (Lewis et al. 1998, p. 79) The senior Lewises were artists as well as scientists. The mother, Margaret, played the violin, and “Mother had worked in charcoal and oils, and Father had used pen and ink, watercolor, and carving tools. Before their wedding, Father made Mother a hope chest of dark oak, carved with scenes from their climbs in the Alps, and their sails and research at Woods Hole” [*Op. Cit.*, p. 80]. The love of climbing continued, especially with the opportunities offered by the nearby National Park. “In the early 1920s there were few restrictions on the use of Acadia National Park. . .no one told us then that some of our favorite spots were closed in the middle of the night, or not to light a fire. . .Flying Squadron (now Dorr)—Mountain was the trail best constructed for night climbing To do this involved going to bed very early, rising in the black hours, dressing in many layers, and driving to Sieur de Monts Spring. With Mother and her frying pan in the lead, we lumbered off, and up we went. . .Every once in a while we counted off, just to make sure that no child had fallen over a cliff. By the time we reached the top, the sky would be quite light, Mother would have a fire going, and soon would come the penetrating aroma of bacon and eggs. . .When I remember those breakfast climbs, so satisfying to body and spirit, I regret that today they would be highly illegal [*Ibid.*].” Margaret also described parties at a later Lewis cottage,<sup>128</sup> attended by

<sup>124</sup> Kenlois burned down sometime in the 1970s.

<sup>125</sup> *Bow End* was the name of the farmhouse that Mrs. Bowen insisted be designated for the then Director, W. H. Neal.

<sup>126</sup> Eden Baptist Church. See Fig. 5.

<sup>127</sup> The founder of Hull House in Chicago, she was awarded the Nobel Peace Prize in 1931. See Addams (1912).

<sup>128</sup> This was a cottage that the Lewises built, on Spruce Point at the northern tip of the McCagg Tract, after purchasing the property from the MDIBL in 1929. See Chap. 3 for more details.

Ambassador and Mrs. Morgenthau<sup>129</sup> and Rear-Admiral Richard Byrd, who “had was just back from 2 years in Antarctica and his first flight over the South Pole.”<sup>130</sup> Ambassador Morgenthau “told tales of the Near East: of the discovery of an ancient tunnel once used to carry water from the Pool of Siloam into Jerusalem, of trips south to Petra, or to Hebron and the cave of Machpelah . . . [and] tomb of Abraham” (Lewis et al. 1998, p. 85).

The reminiscences of the Lewis children also contained numerous references to MDIBL scientists, such as Robert Hegner, E. K. Marshall, and S. O. Mast, who had been recruited to the Laboratory by their parents. They, as well as other members of the next generation of MDIBL scientists who reached international prominence (e.g., William Cole, James Shannon, and Homer Smith), will be introduced in the next chapter.

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<sup>129</sup> Henry Morgenthau, Sr., was President Wilson’s ambassador to the Ottoman Empire during WWI and spoke out against the Armenian Genocide. His memoirs of this period were published in 1981, more recently reprinted as Morgenthau (2010).

<sup>130</sup> Lewis et al. (1998), p. 82. This must have been 1930, since Byrd was in the Antarctic 1928–1930. In 1936, Admiral Byrd gave a talk about his exploits for the benefit of the MDIBL. As the Bar Harbor Times of August 14, 1936 said: “Nine thousand feet of thrilling new motion pictures depicting vast areas upon which human eyes have never before looked, will illustrate the famous explorer’s own story of his recent adventures. The adventurous side of the Expedition—the voyages of discovery over ice-crashing seas in the gallant old barkentine, Bear of Oakland; the exploratory airplane flights over the monstrous glittering continent at the bottom of the world; the sledge and tractor parties which unearthed amazing new data of Antarctic biological and geological import; the amusing incidents of the day by day life at Little America; these are stories to hold the absorbed interest of any audience. These are the stories which Admiral Byrd will relive for us in word and picture.” Interestingly, the father of one of the MDIBL’s current summer researcher’s, Dr. Elizabeth Crockett (Ohio University), was a dog handler on the Byrd Expedition, and Dr. Crockett has studied the physiology of Antarctic fishes during many NSF-sponsored trips to McMurdo Sound.

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