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I have many fond childhood memories of afternoons spent around the kitchen table with my two-older brothers, my grandmother, and a cup of tea. It was around this table that my grandmother would sometimes regale us with her memories of the mornings the German U-Boats surfaced off the beach of her home in Lance Cove, Bell Island. To this day, I am overwhelmed by her description of the wounded, drowning sailors whom were hauled from the water following the torpedoing of the iron-ore carriers that lay at anchor off the island. I am still struck with deep admiration for the people who rowed out to the debris of these sinking ships, and for my great-grandmother who cared for these sailors in the modest confines of her Salt-Box home.

Socrates once described education as the "kindling of a flame". As a young boy my grandmother's stories captured my sense of wonder. Now, as a young man, I have been able to transform this curiosity into a meaningful journey and learning experience. This essay is to share my self-directed learning experiences in underwater-archaeology, the challenges I have overcome, and how these experiences have shaped me as a researcher and a person.

I began my studies at Memorial University in 2013, and enrolled in science courses supporting my pursuit of a degree in Biology. Out of curiosity, I also enrolled in an elective, introductory course in archeology. This course was the catalyst for my desire to study archaeology, and would later set the groundwork for my self-led studies in underwater-archaeology. I could not have imagined, then, the whirlwind of learning and self-discovery this decision would spark.

That Winter, I decided to fulfill a life-long interest, and I enrolled in a three-month training program to earn my Open-Water scuba-diving certification. While completing this training, I became aware that a local organization, the Shipwreck Preservation Society of Newfoundland and Labrador (SPSofNL), was offering an introductory course in underwater-archaeology. Without knowing much about the course, I thought it may be an excellent way to merge my newly discovered passions for archaeology and scuba-diving. I was not wrong. I successfully completed the course, and felt energized and excited about the possibilities of continuing my studies in underwater-archaeology. It was at this time that I set a specific learning goal for myself: to earn a diploma in Underwater Archaeology through the Nautical Archaeology Society (NAS). The NAS is an internationally recognized institution that encourages students to engage in educational and volunteer experiences pertaining to underwater-archaeology. Over time these experiences can be formally submitted in an application, where successful applicants are accredited with a diploma in underwater-archaeology. Since there did not exist any formal opportunities to study underwater-archaeology at Memorial University, or in my province, I knew that my pursuit of this diploma would be challenging. Not one to be deterred, I knew that if I was independent, creative, and ambitious, I could achieve this goal. With this in mind, I began to contemplate my next steps.

I knew that before I could become a competent underwater-archaeologist, I would first have to become a competent scuba-diver. Without hesitation, I took to the water to continue my scuba-diving training. A month after completing this underwater-archaeology course, I successfully completed my Open-Water scuba-diving certification, and have since become certified as an Advanced, Open-Water, and Rescue-Diver with multiple specialties.

Identifying and pursuing learning opportunities has been essential to this journey. In the Fall of my second year, I located and enrolled in an online, non-credit course, 'Shipwrecks & Submerged Worlds', offered by the University of Southampton. This course provided me a broad overview of shipwreck research and was a door to further steep myself in the field. That Winter, I applied for an accredited, underwater-archaeology field school in Cyprus, co-hosted by the NAS and the University of Cyprus. I was one of eight students accepted for the competitive, international program. However, over the Winter the region had become implicated in the

emerging Syrian war, and was not a particularly safe destination. These concerns, coupled with the expense of tuition and travel, discouraged me from attending. Reluctantly, I declined their offer and offered my spot to another candidate. This was especially frustrating because it was my only opportunity, at the time, to formally study underwater-archaeology.

That summer I used the money I had saved for the Cyprus field school to visit my brother, whom was living on the coast of North Carolina at the time. During my visit I connected with Mr. Joe Hoyt and his team of underwater-archaeologists from the Office of National Marine Sanctuaries (NMS). In an ironic twist, the team were hosting a consecutive series of underwater-archaeology courses, equivalent to those I hoped to complete in Cyprus. I jumped on this learning opportunity and spent six days with Mr. Hoyt and his team mapping two 20<sup>th</sup>-century shipwrecks. This was a major learning experience for me, and allowed me to solidify the critical, underwater-skills of shipwreck mapping that I had previously learned online. On this course I also learned how challenging it can be to operate underwater. The shipwrecks we surveyed were located on a sandbank, and were subject to heavy current and wave-action that made it almost impossible to gather precise measurements. Further, the visibility underwater was sometimes limited to 20ft. which meant that contact between you and your dive-buddy was often lost. In response to this, we had to adapt our dive-plans with precise strategies for mapping in turbulent conditions, and for locating your dive-buddy in poor visibility. In addition to this, as a part of our mandate, each day I spoke with locals to educate them about underwater-archaeology and our research project. This experience, and the skills I developed with Mr. Hoyt and his team have proven invaluable to my growth as a researcher and as an aspiring underwater-archaeologist.

In January of 2016 I travelled to Washington, DC to present at the Society for Historical Archaeology conference. The NMS team invited me to speak at their symposium on community-archaeology, following my contributions to their research in North Carolina. At this session, I delivered a presentation about the importance of involving communities in underwater-research, and offered insights on how the relationship between academia and the public can be strengthened. My presentation contrasted aspects of community engagement between the research projects I volunteered with in North Carolina, and in Newfoundland with the SPSofNL and local dive-company, Ocean Quest. However, I knew this conference was more than just an opportunity to share my insights, it was also a chance to learn more. While attending this conference, I met with underwater-archaeologists from across the continent and listened to their perspectives on project-development and leadership.

When I returned home, I wanted to share this knowledge with my community. I joined the executive-committee of the SPSofNL, and met with community stakeholders to discuss how we could stimulate research and encourage long-term protection of the shipwrecks in our own waters. That Winter, I organized a 'Sea Shanties & Stories' folk-night, and also attended the 2016 Youth Heritage Forum offered by the Heritage Foundation of NL (HFofNL). These events helped me acknowledge that the histories of ships, and their sailors, do not just exist in shipwrecks at the bottom of the sea. This history also lives in the oral-traditions shared between generations of song-writers and story-tellers, and are as important culturally as they are historically.

With each new discovery, there was more I wanted to learn. At every opportunity, I made an effort to grow my understanding of underwater-archaeology. During the Winter semester, I enrolled in a course, Cultural Resource Management, to further study how heritage structures are designated and protected. At the end of this course, I compiled a 28-page research paper assessing the Bell Island shipwrecks as a potential National Historic Site. Following my completion of this paper I shared it with the SPSofNL and Ocean Quest's owner, Rick Stanley, to open a discussion

about how, as a community, we can work together to have this underwater heritage recognized and protected. After sharing this report with Mr. Stanley, I was invited to join the team of Canadian Geographic's 'Expedition of the Year', who were mapping and documenting the submerged iron-ore mines of Bell Island at the time. With this team, I travelled to high-schools in Conception Bay and on Bell Island to speak with students about my experiences as an archaeology student at Memorial, and why it is important to study and conserve our history. This experience reinforced my understanding of why it is important to share our academic findings with the public. Following my work with this team, I attended the Canadian Association for Underwater Science (CAUS) annual-general meeting, which was held at Memorial University that Spring. At this meeting I was able to attend lectures on dive-team management and dive-safety. These lectures offered new insights about dive-coordination that have been critical for my work underwater.

Throughout this educational journey I have developed a multitude of specific skills in underwater-archaeology. However, I also have learned some rather important life lessons. One of which, that our original plans and goals may sometimes lead us towards new and even more exciting possibilities. Over the duration of my studies in underwater-archaeology I began to identify unanswered research questions about the Bell Island shipwrecks. These questions included, in brief, how the U-Boats were successful in navigating past the Island's artillery, and how the physical deterioration of the shipwrecks is affecting their long-term conservation. To approach these research questions, I enlisted the support of Ms. Rebecca Smith, an Honours history student, and Mr. Ken Keeping, a SONAR technician and accomplished underwater-archaeologist. As a team, we refined our research questions and identified the resources available to answer them. With their support, I wrote and submitted a 60-page grant application to the JR Smallwood Foundation. In December, we were notified that our application was successful and fully-funded.

Former President Kennedy once wrote, "leadership and learning are indispensable to one another". Reflecting on these experiences, I realize how true this has been for me over the past four years. My goal of becoming an underwater-archaeologist has simultaneously required me to become a leader: responsible for creating and directing my own learning experiences, and also a leader in my community, responsible for sharing my skills and experiences. Nonetheless, I have also had to be a team-player; there are many challenges underwater that are often only overcome by cooperation. It is a rule in scuba-diving that all divers enter the water with a dive-buddy. I have learned that dive-buddies are essential for success in all milieus, above or below the surface. I have also come to understand that learning is a process, and takes a long time. My studies in underwater-archaeology did not happen overnight, it has taken a major commitment of my time, money, and energy. I appreciate that each learning experience, however big or small, has been a part of this learning process. Most importantly, I have learned that there may not always exist formal opportunities to study what you desire. However, with creativity and determination you can create learning pathways. I would never have been able to achieve these goals, had I not stepped outside the box and directed my own learning journey. This Summer I will continue as a self-directed learner, and hope to achieve my Dive-Master certification and Diploma in Underwater Archaeology while leading this research project on the Bell Island shipwrecks.

Learning is the kindling of a flame. My passion for underwater-archaeology can be traced back to the afternoons I spent at the kitchen table with my grandmother, the stories she shared, and the curiosity that was awoken within me. Becoming a self-directed learner means embracing this curiosity. This journey has been as much about self-discovery as it has about underwater-archaeology. As I prepare to lead this research project, I am excited about what I may discover about the Bell Island shipwrecks. I am also excited for what I will discover about myself.