



WPI

Preser
VENICE

Preser Venice Launch

**A Crowdfunding Solution for Preserving
Venetian Heritage**

An Interactive Qualifying Project Report
Submitted to the faculty of the
WORCESTER POLYTECHNIC INSTITUTE
In partial fulfillment of the requirements for the
Degree of Bachelor of Science

Submitted by

Dimitri Berardi
Benjamin Hetherington

Samuel Joy
Katherine Thompson

Project Advisors

Dr. Fabio Carrera
Dr. William Michalson

Sponsors

SerenDPT
Arti.City

Submitted on

December 14th, 2018

<https://sites.google.com/view/ve18-pv-2/home>

VE18-PV@gmail.com

This report represents the work of WPI undergraduate students submitted to the faculty as evidence of completion of a degree requirement. WPI routinely publishes these reports on its website without editorial or peer review. For more information about the projects program at WPI, please see

<http://www.wpi.edu/academics/ugradstudies/project-learning.html>

Abstract

We contributed to the creation of PreserVenice, a crowdfunded association dedicated to preserving Venetian heritage. We cataloged more inscriptions to further complete the Venice Project Center database and calculated initial cost estimates of each category of public art for future restorations. Additionally, we redesigned the PreserVenice website aesthetically and functionally, improving the artifact search tools and providing a more contemporary, clean appearance. Finally, we started a social media presence for the organization, and left proposals for future job opportunities and a streamlined restoration process. Our project improved upon the past eleven years of work on PreserVenice and provided the company with the tools it needs for future success.

Executive Summary

Venice is known for its rich cultural heritage, art, and architecture. While many pieces of art can be found in various museums, churches, and shops, there is also an often overlooked subset of Venetian art. Public art and artifacts in Venice are ever-present in the city's many winding streets and canals, and it is impossible to walk anywhere without seeing them. These artifacts have deep roots to Venetian culture, with many of the artifacts dating to when Venice was an independent and well-established trade empire, serving as a link to the past history and beauty of Venice. Many of these pieces have suffered deterioration due to the elements, vandalism, and theft, and there is not enough funding toward public art preservation. With this in mind, PreserVenice was created to preserve and restore the many pieces of public art in the city, as well as to raise awareness about public artifacts, the dangers they face, their significance, and how deterioration can be halted. PreserVenice is a startup non-profit organization based in Venice that takes donations and turns them into restoration efforts.



Figure 1- 3166 Erratic Sculptures Documented Through Venice



Figure 2 - An Example Of An Inscription Our Team Documented

Our project group was tasked with preparing PreserVenice for an official launch of their startup. We identified areas in which we felt our team would have the greatest impact on the future of PreserVenice: documentation and cataloging, assessing cost and priority, updating the website, setting up a social media campaign, and assisting in business logistics. These areas were identified as

integral parts of the overall restoration process. Restoration is a complex process but we were able to simplify it by splitting it into four subsections. The first step involves cataloging public artifacts, as to better know the state of what PreserVenice aims to restore. Nearly three decades

of work had been done cataloging over 7000 artifacts which can be found around the city of Venice. Our group inherited an extensive database covering over 15 types of public art and providing us with in depth information about each piece. We further added to this database by expanding the catalog of inscriptions, which were lacking in past years. Once data had been collected, the next step toward restoration is assessing condition, determining costs, and determining the priority of restoration efforts. Working off of condition assessments from past teams, we were able to create initial cost estimations, and even further were able to prioritize the pieces by which should be restored first.

Moving forward in the restoration process, the next stage is fundraising enough money to meet the costs outlined in the previous step. Part of this fundraising is accomplished by publicizing PreserVenice enough that people will be interested in donating to our cause. To do this our team decided to start a social media campaign and online merchandise store, spreading the word about what PreserVenice does, and reaching a larger audience of potential donors. Once PreserVenice reaches this audience, they are directed to our website where potential donors can use the new website to find pieces they are engaged with and interested in donating to. This updated website has added features, faster loading time, and is fully connected to the CityKnowledge Database used by the Venice Project Center.

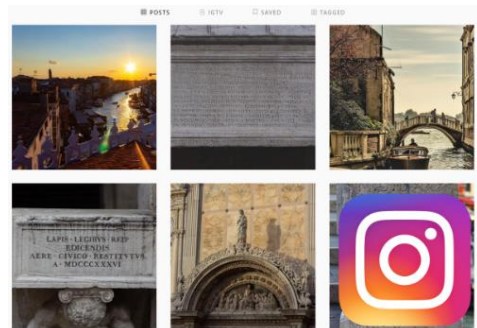


Figure 3 - PreserVenice's New Instagram Feed

In order to complete the process of fully launching PreserVenice there are still a few challenges beyond our work. These include appointing executives to the PreserVenice organization, establishing a bank account, and finally integrating the website with the Swarmoola payment system API which will enable the company to accept donations. Once these requirements are met, the restoration of public art can finally begin, and the work of Venice Project Center Teams since 2007 will finally come to fruition.

Table of Contents

Abstract	1
Executive Summary.....	2
Table of Contents.....	4
Authorship and Acknowledgements.....	9
1. Introduction.....	10
2. Background.....	13
2.1. Public Artifacts in Venice.....	13
2.1.1. Types of Public Artifacts.....	14
2.1.2. Condition of Public Artifacts	14
2.2. The Artifact Restoration Process.....	15
2.2.1. Condition Assessment.....	15
2.2.2. Prioritization of Restoration Efforts	16
2.2.3. Cost Estimate of Restorations.....	17
2.2.4. Collection of Funds.....	17
2.3. The State of Public Art Conservation	18
2.3.1. Art Ownership.....	18
2.3.2. UNESCO Heritage Sites	19
2.3.3. Italian Standards for Conservation.....	19
2.3.4. Current Preservation Organizations in Venice	20
2.3.5. Taxation on Restoration Companies	21
2.4. Previous PreserVenice Projects	22
2.4.1. History of PreserVenice	23
2.4.2. Arti.City and SerenDPT	24
2.5. Social Media Strategy	25
2.5.1. Social Media Platform Usage	25

2.5.2. Best Practices for Content Creation.....	26
2.6. Summary.....	26
3. Project Objectives and Scope	27
4.1. Methodology.....	29
4.2. Breakdown of <i>Lapidi e Iscrizioni</i>	29
4.3. Collection of Data	30
4.4. Updates to the Database	31
4.5. Results and Analysis	32
4.5.1. Recommendations.....	34
5. Cost Estimates and Prioritization Analysis	35
5.1. Condition Assessment Data Analysis	35
5.2. Cost Estimations	37
5.3. Prioritization of Restoration Efforts	38
5.4. Recommendations.....	41
6. The PreserVenice Website.....	42
6.1. Back-end Setup.....	42
6.1.1. Development Framework.....	42
6.1.2. Web Server	42
6.2. Website Design.....	43
6.2.1. Homepage	43
6.2.2. Daily Sample and Artifact Cards.....	45
6.2.3. Map Page.....	45
6.2.4. Artifacts Page	46
6.2.5. About and Contact pages	47
6.3. Recommendations.....	47
6.3.1. Future Website Features	47
6.3.2. Website Performance Notes	48

6.3.3. Mobile Website Improvements	49
6.3.4. Database Improvements.....	50
7. The Launch of PreserVenice	52
7.1. Publicity Through Social Media	52
7.1.1. Instagram	52
7.2. Future Advertising and Customer Outreach	55
7.3. Fundraising Through Merchandise.....	57
7.4. PreserVenice Operations	59
7.4.1. Restoration Process	59
7.4.2. Statutes and Bylaws	60
7.4.3. Job Opportunities.....	60
7.5. Recommendations.....	61
8. Final Conclusion and Recommendations	62
8.1 Recommendations.....	62
8.2 Final Words.....	63
Appendices.....	66
Appendix A	66
Appendix B.....	69
Appendix C	71
Appendix D	77
Appendix E.....	85
Appendix F.....	93
Appendix G	94
Appendix H.....	95
Appendix I.....	96
Appendix J.....	97
Appendix K	98

Table of Figures

Figure 1- 3166 Erratic Sculptures Documented Through Venice	2
Figure 2 - An Example Of An Inscription Our Team Documented	2
Figure 3 - PreserVenice's New Instagram Feed	3
Figure 4 - The Old PreserVenice Logo	11
Figure 5 - Thirty Years of Deterioration.....	14
Figure 6 - The Four Stages for Artifact Restoration	15
Figure 7 - Feasibility Versus Impact	16
Figure 8 - The Correlation Between UNESCO and the Italian Government.....	20
Figure 9 - The Timeline of PreserVenice	22
Figure 10 - The Old PreserVenice Website.....	23
Figure 11 - Arti.City's Logo.....	24
Figure 12 - Simionato's Lapidi e Iscrizioni	29
Figure 13 - Data Collection From Simionato's Work	30
Figure 14 - An Example Inscription With Deterioration	31
Figure 15 - Before (2017) and After (2018) of Inscriptions	32
Figure 16 - The Oldest Inscriptions Documented, 1351 AD (Left) and 1278 AD (right)	33
Figure 17 - The Longest Inscription Documented.....	33
Figure 18 - Previous Work on Cataloging and Assessment.....	35
Figure 19 - Condition Assessment Data	36
Figure 20 - Cost Estimate Data.....	37
Figure 21 - Table of Cost Estimates	38
Figure 22 - Highest Priority Category for Restoration	39
Figure 23 - Medium Priority Category for Restoration	40
Figure 24 - Lowest Priority Category for Restoration	40
Figure 25 - The New Homepage	44
Figure 26 - Placeholder for Future Restorations	44
Figure 27 - Example Daily Artifact Showcase.....	45
Figure 28 - The New Map Layout	46
Figure 29 - Artifacts Displayed in a Tabluated Format	47
Figure 30 - Diagram Displaying Suggested Database Layout.....	50

Figure 31 - PreserVenice's Instagram "Biography" 53
Figure 32 - PreserVenice's Instagram Feed 53
Figure 33 - Example Hashtags Used for the PreserVenice Account 54
Figure 34 - PreserVenice's "Our Story" Carousel..... 55
Figure 35 - Example Designs for PreserVenice Merchandise 57
Figure 36 - Examples of PreserVenice Merchandise 58
Figure 37 - Summarzied Restoration Process Flow 59
Figure 38 - Posters for Advertising PreserVenice..... 56

Authorship and Acknowledgements

This PreserVenice Team would like to thank our sponsors SerenDPT and Arti.City in addition to our advisors Professors Fabio Carrera and William Michalson. In addition we would like to acknowledge Andrea Toffanello and Nicola Musolino for their extensive support with the website and database.

This final report was written by Dimitri Berardi, Benjamin Hetherington, Samuel Joy, and Katherine Thompson, of the VE18-PV team. The report was drafted and revised in a team environment, and as such, every member's collaboration and teamwork led to the completion of this final report. The introduction and section 3 was a group effort with the other sections being broken down by team member. Specifics of authorship are as follows:

Dimitri Berardi contributed the 2.2 Restoration Practices and 2.5 Social Strategy sections, as well as infographics pertaining to social media and outreach. He additionally wrote sections 7.1 and 7.2 as well as half of 7.5 to complete the social media portion of the project. He additionally has provided a lot of creativity and inventive solutions for group issues.

Benjamin Hetherington contributed the 2.4 Previous PreserVenice Projects and all of section 6, the section pertaining to the website. Ben has additionally 'authored' all of the code that has gone into the final website which can be found in the preservencie github repository.

Samuel Joy contributed the 2.1 Public Artifacts in Venice section to the background, wrote the Documentation of Artifacts and Conclusions sections (section 4 and 8), and has handled much of the formatting and proofreading across both the presentation and project proposal and has been a constant source of sound advice throughout the project.

Katherine Thompson contributed the 2.3 Public Art Conservation Initiatives. Additionally she contributed sections 5, 6.3.4, 7.3 to 7.4, and part of 7.5 pertaining to topics ranging from assessing condition and cost, to business infrastructure, to database recommendations, as well as numerous infographics and her leadership across the project.

1. Introduction

A common thread to societies regardless of time is the importance of preserving their culture. From ancient civilizations to the globalized network of today's world, both artwork and public artifacts leave a lasting impression and are a tangible representation of those who came before. Whether it be functional structures like the Parthenon or the Great Wall of China, monuments such as the Statue of Liberty or the Eiffel Tower, or the numerous paintings and artifacts housed in museums worldwide, organizations and institutions globally place an inherent importance upon the preservation of cultural history. 1073 locations in 167 countries are even designated as World Heritage Sites by UNESCO, a sub-branch of the United Nations dedicated to "the intellectual and moral solidarity of humanity", promoting global collaboration toward this common goal despite war, natural disasters, and other such threats to the integrity of physical embodiments of culture.

Venice, Italy is a prime example of one of these culturally significant cities designated by UNESCO as a world heritage site. Founded in 421A.D., the city evolved into a massive trade empire between the 9th and 15th centuries, flourishing as the central hub between the East and West. In modern-day Venice, though no longer the dominant economic power it once was, fragments of its past still survive, with over seven thousand pre-modern artifacts currently documented. Ranging in size from small plaques inscribed with past laws to St. Mark's Basilica, every street is filled with links to the past. However, due to the prominence of larger public artifacts and the necessity to keep those intact, the less noticed smaller works are neglected and in danger of disappearing.

The Ministry of Cultural Heritage and Activities and Tourism (MiBACT) and its governmental bodies oversee public art preservation and restoration in the city. They have a budget of €6.1 billion, yet they are stretched thin, as the ministry must also handle architecture, tourism, archives, libraries, and cultural activities. As a result, what little restoration and preservation funding remains is often prioritized for major attractions such as the recent restorations to St. Mark's Basilica. Meanwhile, smaller public artifacts which have been a part of the city since its founding are forgotten and fall into disrepair. As a result, private collections and companies such as SaveVenice and Venice In Peril have attempted to address public art conservation.

Unlike the government, private committees can use their funds specifically for small public art pieces which they determine are important to their neighborhoods and community, but ultimately, they still must go through MiBACT for restoration approval. These companies have identified several aspects to consider when taking on a restoration project including condition, location, length of time needed to restore, and materials needed. While somewhat successful in their endeavor to restore Venetian art, the companies are owned and run outside of Italy, primarily funded by larger donations and galas. These privately funded organizations, though beneficial, are not Venetian-led, and lack close ties to the city and its people thus don't understand where the funds need to go.

In contrast, PreserVenice is a startup which aims to be a Venetian owned and led crowdfunding platform for the restoration and preservation of public cultural artifacts. SerenDPT, with the help of past Venice IQP groups, has documented artifacts across the city of Venice, created a website, and established methods for assessing the condition of artifacts as well as the cost of restoration. Additionally, in 2017, the VE-17 SAVE group created Arti.City, an associated startup aiming to support crowdfunding organizations around the world by applying the PreserVenice concept to a global scale. However, the PreserVenice website had not been updated since 2013, only had nonfunctional placeholder blocks of code for its core features, and was aesthetically outdated. No project in the past had sufficiently documented the island of Giudecca, and inscriptions in Venice are lacking overall. Furthermore, no restorations had been completed yet, and no plan exists which outlines the full restoration process. Finally, though this wealth of documented public artifacts exists, it had not yet been publicized to the general population. Making people aware of the issue at hand is necessary to effectively make use of the data. All these factors had to be addressed before PreserVenice is ready to transition from a startup to an actual company.



Figure 4 - The Old PreserVenice Logo

The goal of this project was to help SerenDPT to successfully launch the PreserVenice startup by revamping the website and launching a social media campaign to establish a foundation for donations. This was accomplished through the completion of the following objectives:

1. To update and integrate the existing Venice Project Center public artifact catalog
2. To expand the catalog of inscription artifacts
3. To finalize and publish the PreserVenice website
4. To publicize PreserVenice through the creation of a social media presence
5. To develop a protocol for the execution of restorations

With these goals completed, the past eleven years of gradual work toward establishing PreserVenice will come to fruition. These projects hold cultural importance because these pieces are at the core of Venetian heritage and represent the pride that Venice has in its unique culture. PreserVenice aims to have a positive impact on the city and residents of Venice by restoring local pieces, creating a more visually appealing city, and providing new, non-tourism related jobs to young Venetians, encouraging them to stay in the vibrant city.

2. Background

Public art and artifacts are a cultural staple in cities across the world, serving as unique descriptors of the past. Such works allow for the residential population to connect with the past and to better appreciate their heritage, while tourists can understand and appreciate a culture other than their own. Across centuries, Venice, Italy was a dominant trade empire in the Mediterranean, and over time it developed a vibrant artistic culture emerging from its own school of art during the Renaissance.

Despite its former status, Venice has experienced deterioration of its physical cultural heritage. Beyond private collections and major locations such as St. Mark's Basilica, there is not enough government funding to restore and maintain the several thousand documented public artifacts across the city, spanning sizes from small inscriptions and emblems to bell towers and monuments. The deterioration is only worsening due to human and environmental elements, and many artifacts will be lost to time without proactive attention. The city of Venice is thus in need of a new funding method to preserve its heritage, as past initiatives have not been sufficient. In this chapter, we will provide explicit definitions of public artifacts, address the current standards and initiatives for art conservation in Venice, and outline current practices which can be applied to raising awareness and donations for PreserVenice, a startup crowdfunding platform based in Venice which will collect donations for the preservation and restoration of these public artifacts across the city.

2.1. Public Artifacts in Venice

Public artifacts are a broad category of structures which exist as relics of the past in public spaces, often with an aesthetically pleasing design. These artifacts are almost always crafted from stone or metal and line the streets and canals of Venice. The union of form and function, these works are more than aesthetically pleasing decorations, either having served or currently serving utilitarian purposes to daily life in Venice, such as displaying information about an area, offering a location for prayer, or providing water to residents. Due to the breadth of public artifacts, it is useful to subdivide this concept into tangible categories.

2.1.1. Types of Public Artifacts

On the more functional end of public artifacts are flagstaff pedestals, fountains, inscriptions, wellheads, and street altars. Flagstaff pedestals are often made with Istrian stone and were historically used to fly flags with pride across the city. The pedestals often feature inscriptions or inscribed designs. Fountains and wellheads both still function as sources of fresh water for the city and have intrinsic artistic qualities due to their shape and sculpting, whereas inscriptions throughout the city contain messages, laws, and information of how the city lived in the past, and street altars offer public places of worship. Beyond these more functional structures, most artifacts are more standard aesthetic works - statues, monuments, coats of arms (*stemmi*), confraternity symbols, relief sculptures, crosses, Byzantine-era pagan charms called *patere*, and fragments of broken art and artifacts. However, due to their public nature, many of these public artifacts exist in some state of neglect.

2.1.2. Condition of Public Artifacts

Environmental and human exposure are the leading causes of deterioration of public artifacts. Common types of deterioration include weathering, corrosion, human contact, and cracking due to age (GYST, 2018). While restorable, these factors can lead to the complete destruction of artifacts if left unmonitored. Figure 5 displays deterioration of one such artifact since 1978.



Figure 5 - Thirty Years of Deterioration

2.2. The Artifact Restoration Process

Artifact restoration is a part of the overall art conservation process and denotes only the repair process itself. (Thottam, 2015). There are four key stages to proper restoration practices: condition assessment, cost estimation, prioritization, and funding collection. Art restoration is not a newfound practice, and documented systems have been put into place to accomplish each task outlined above to create a systematic approach despite the nuances to each artifact. By learning from the experience of others and tailoring their methods to this project, we can develop a strategy for the restoration process for PreserVenice.

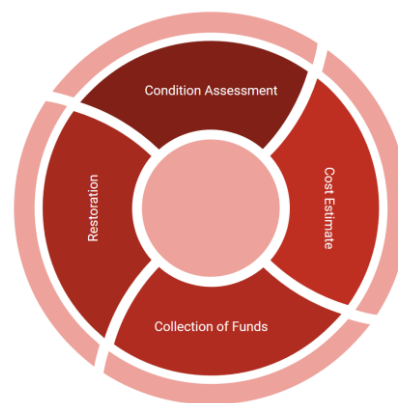


Figure 6 - The Four Stages for Artifact Restoration

2.2.1. Condition Assessment

A systematic approach to condition assessment for artifacts is necessary to maximize efficiency and accuracy. Most public artifacts are made of metal or stone to withstand environmental factors. When assessing the condition of stone, it is important to note the most common types of damage that occur such as “chalking, grime, surface cracks, spots and stains, flaking, washout, and algae” (GYST, 2018). Water is the prime culprit for erosion, defined as surface loss greater than one half of an inch in depth.

Metal additionally experiences corrosion, which is a chemical reaction caused by contact with oxygen, minerals, acids, salts, and oils. The most notable effects of corrosion include decay and discoloration, both of which must be addressed at the time of restoration. A previous IQP broke these conditions down into three main categories - grime, corrosion, and structural damage - and weighted each criterion according to importance as shown below, critical to prioritizing restoration efforts (Fitzgibbon et al. 2011). The weighting of importance includes Structural: 50%, Corrosion: 35%, and Grime: 15%.

2.2.2. Prioritization of Restoration Efforts

When dealing with thousands of potential restoration projects, it is imperative that a system is put in place to determine what gets the most attention, and in doing so “a common approach in such circumstances is to classify variables of interest. with a constructed scale” (NEDCC, 2018). Such a scale guarantees a systematic evaluation method and requires a listed set of variables to monitor, mostly defects and deteriorations to the artifact (Appendix A). Each criterion needs to be ranked from the simplest to the most complex, with an associated level of importance depending on the damage caused to the art. In doing so, a numeric process can be defined to create a pre-determined and data-driven analysis process for the individual surveyor to base their work on. For example, one criterion is Vulnerability and under this, there is a subsection about theft where you can choose from 0-4 the following:

4	4 is small, easily detached, close to the ground or window
3	3 is any two of those criteria
2	2 is any one
1	1 is low risk of theft
0	0 is reserved for objects whose structural function would make them immediately noticeable if stolen (wellheads, mascaroni, etc.)

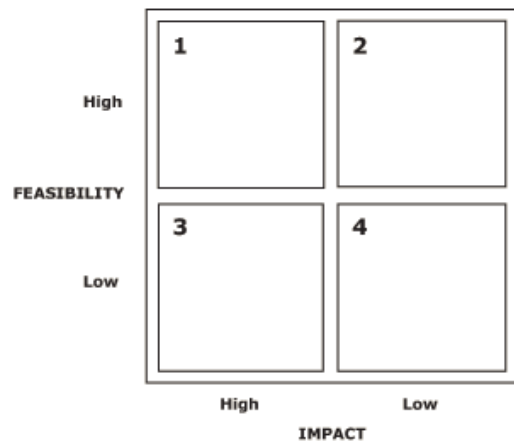


Figure 7 - Feasibility Versus Impact

In addition to a data-driven approach, it is important to remember that each project is meant to have a visible impact. The NEDCC outlines the three main criteria to consider when prioritizing preservation actions: impact, feasibility, and urgency (NEDCC, 2018). By adding **PRIORITY** as the Z-axis to Figure 7, one can visualize the priority associated with each piece, given the criteria. By applying a scale to each of these metrics, in addition to the ranking system, one can produce an (almost) automated and algorithmic method for the prioritization of restoration efforts.

2.2.3. Cost Estimate of Restorations

When estimating the cost of any restoration, the main criteria are Time, Materials, Tools, and Logistics. Factors such as size, accessibility, and condition will all play a role in the amount of time a restoration project will take, ranging from a single day to many months. It is important to make a note of the estimated time given these variables, however, the final cost of time will always depend on the rate of the hired worker(s). While some restoration projects require nothing more than some water and soap, the use of resins and wax may be applied afterward to protect the art piece from any additional damage. Chemical solvents and welding of some type may be required on certain metal art pieces, further increasing the cost. In fact, one of the most common and expensive materials needed to complete a restoration project is scaffolding. With the help of Dr. Fabio Carrera's doctoral dissertation, SerenDPT and past IQP groups have developed a set of equations, referenced in Appendix B, which assess factors such as scaffolding costs, restoration costs, architect fees, and taxes to produce a restoration estimate that our project will be able to incorporate into our crowdfunding.

2.2.4. Collection of Funds

The development of crowdfunding paved the way for “drawing on small contributions from a large number of backers, using the internet” (Méric, 2016) to reach the widest audience. Crowdfunding can adopt an array of models, each of which has a different incentive to solicit donations. In Italy, based on the 54 crowdfunding websites recorded in 2014 (Méric, 2016), the dominant model is a reward-based platform, which means donors get some sort of gift in return for their donation. Investors in crowdfunding campaigns tend to pay more attention to the ideas and core values associated with the project. Crowdfunding helps to democratically select and prioritize ideas, and in being reliant on the masses thus provides legitimacy to the platform as more individuals interact with it (Méric, 2016). PreserVenice aims to be a reward-based vertical platform - vertical meaning industry-specific, as it builds solely toward art conservation and restoration, and in doing so, its users will help to prioritize what is meaningful to them.

Crowdfunding is commonly achieved through social media networking sites such as Facebook, Twitter, and Instagram just to name a few. These platforms promote the community-based

experience that is critical to the success of any crowdfunding venture. Backers of a crowdfunding effort feel like they are making a difference, but also reap rewards such as material and/or financial compensation (such as tax breaks, in this case) depending on the system put in place. There are three main factors which have been noted, through empirical analysis, to be significantly important to the success of a crowdfunding initiative. First, active management of social media, is essential before and during the campaign, as networking techniques such as keyword search optimization and hashtags help to spread the name of an unknown organization. Second, accountability to backers with constant updates throughout the campaign builds trust between any social enterprise and both their current and potential backers. Finally, maintaining clarity about the rewards users will receive and transparency about where the money is directed, with a distinction between economic and social value, helps to encourage the philanthropic credibility of such crowdfunding platforms (Méric, 2016). By attending to these three factors, PreserVenice will establish the necessary credibility to accept donations from its potential users.

2.3. The State of Public Art Conservation

The idea of crowdfunding to restore and preserve public artifacts in Venice is not a new one, yet there are very few companies that serve this purpose. The majority of government funds goes toward larger pieces and thousands of artifacts to be restored, there is a direct need for more focus on preservation efforts.

2.3.1. Art Ownership

Before discussing conservation and fundraising it is important to consider who owns Venetian public artifacts. The people who own the buildings that the public artefacts are on are the ones that actually own the art. That said, these artifacts are highly regulated and those who own them are limited in the changes they can make to them. Venice is a UNESCO World Heritage site and has been since 1987 (UNESCO, 1992). As such, its art and artifacts are under the protection of both the Italian/Venetian government as well as UNESCO (The United Nations Educational, Scientific and Cultural Organization) oversight. The Ministry of Cultural Heritage and Activities (MiBACT - *Ministero Per I Beni E Le Attività Culturali*) is the Italian government body

in charge of the regulation of public artworks, and in turn they have appointed the Superintendent of Archaeology, Fine Arts and Landscape for the City of Venice and Lagoon (*Soprintendenza Archeologia, belle arti e paesaggio per il Comune di Venezia e Laguna*) for specifically the region of Venice (MiBACT, 2009). The Ministry and the appointed Superintendent must oversee more than solely public artifacts, and thus budgeting constraints often leave the smaller works of artifacts unattended to. This fact can be seen by the list of finished restorations on the Soprintendenza's website of which the 15 most recent are all large churches.

2.3.2. UNESCO Heritage Sites

UNESCO is the part of the United Nations that, "...seeks to build peace through international cooperation in Education, the Sciences and Culture" (UNESCO World Heritage Centre, 1992). In 1987 Venice and its Lagoon officially became one of the protected UNESCO Heritage Sites (UNESCO World Heritage Centre, n.d.), granting "certain protections, but also [imposing] a number of restrictions and rules. Any work done in Venice requires special permission from UNESCO, making art restoration significantly harder" (Child et al., 2017). Venice was picked as a heritage site was not only because of constant danger due to environmental and human factors but also because it is a 'unique artistic achievement' and has the highest density of artistic masterpieces (UNESCO World Heritage Centre, 1992). Additionally, UNESCO believes that Venice, "symbolizes the people's victorious struggle against the elements as they managed to master a hostile nature. The city is also directly and tangibly associated with the history of humankind." UNESCO is not only dedicated to art and architectural preservation, but also to boosting the socio-economic status and livelihood of each site. They do this by using urban planning tools, taking care of the natural ecosystem, enacting a Management Plan, and integrating a system of public works to fight against common Venetian flooding.

2.3.3. Italian Standards for Conservation

Currently, in Italy, the government has certain standards for conservation. There are rules about how and in what way someone can restore a public artifact and there are only certain companies pre-approved by MiBACT to carry out these restoration projects. When a person, group, or organization has raised enough money to carry out a restoration project, they must go through one of these companies. While it is not necessary that a preservation organization, like

ourselves, know all these rules and regulations, it is important for us to be in contact with trusted restorers who do. Italy has their own set of rules, and additionally, UNESCO heritage sites have very similar rules. UNESCO outlines these as “The local culture has developed a deep-seated continuity in the use of materials and techniques. The expression of the authentic cultural values of the property is given precisely by the adoption and recognition of the effectiveness of traditional conservation and restoration practices and techniques” (UNESCO World Heritage Centre, 1992) which basically says that UNESCO will adopt the standards put into place by MiBACT in order to uphold cultural authenticity. In this way, Venice can be updated and renewed while also paying homage to their culture and the ways of their past.

2.3.4. Current Preservation Organizations in Venice

The preservation organizations that exist in Venice right now are mostly part of a group called the Association of Private Committees for the Safeguarding of Venice (Comitati Privati) which has direct ties to UNESCO and the Soprintendenza (MiBACT, 2018). The connections between all these organizations can be seen in Figure 8 below.

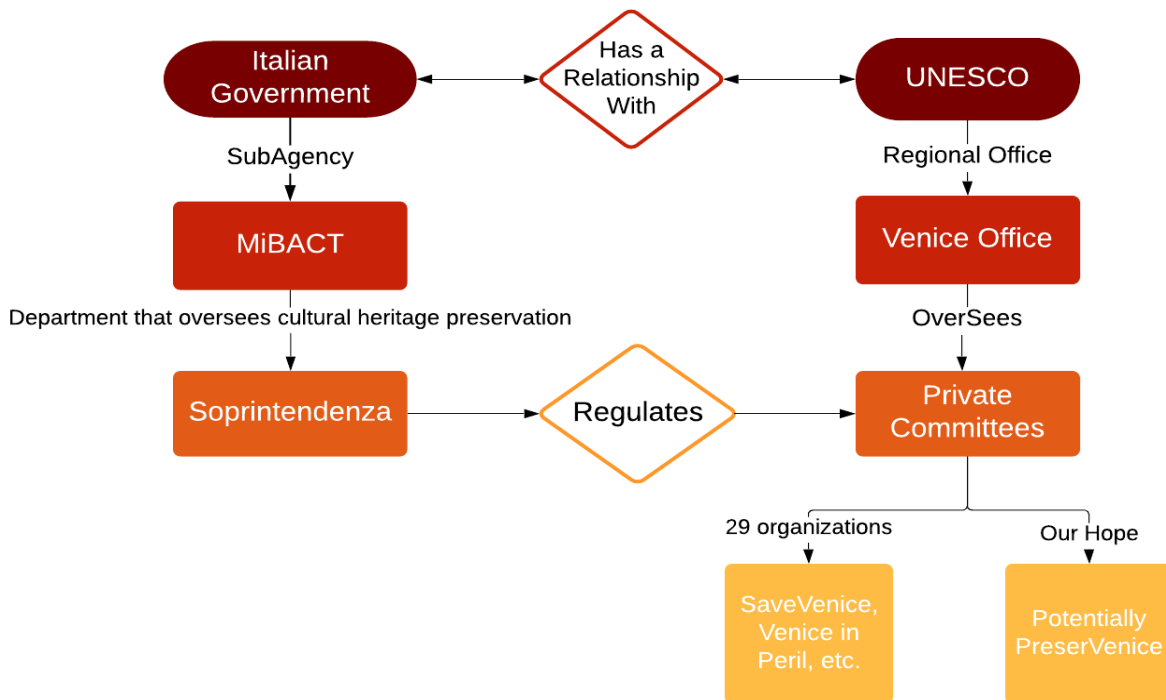


Figure 8 - The Correlation Between UNESCO and the Italian Government

These private committees were created as a result of the flood of 1966 which caused irreversible damage to Venice and its historical and culturally significant pieces (VeniceTheFuture, n.d.). Though the flood was devastating it had a positive impact by creating these private committees whose job description is to, "...promote and fund the restoration of monuments and works of art in Venice and local areas". In all, there are 29 teams from 10 countries. One committee, SaveVenice, has seen 25 million in donations and has worked on over 450 pieces of art and architecture, showing that crowdfunding based restoration companies can be successful in Venice (SaveVenice Incorporated, 2016). Another committee, Venice in Peril, gives detail to how the relationship with UNESCO works:

"UNESCO provides the administrative framework for the Programme and acts as a kind of international trustee. In return for an absolute guarantee that all necessary funds will be placed in a tied UNESCO bank account, the Organization agrees to provide sponsorship for specific projects. This formality triggers the relationship with the Superintendencies described above and UNESCO becomes the legal commissioner of all work and the recipient of all invoices. Because of the Organization's inter-governmental status, the invoices do not attract Value Added Tax. Invoices are paid when the Superintendency and the financing Committee concerned declare that the work has been satisfactorily completed." (Venice In Peril, 2018)

Recognition as a private committee provides legitimacy and accountability through being associated with the UNESCO name, which is why PreserVenice would like to be a private committee in the future.

2.3.5. Taxation on Restoration Companies

Another consideration to be made regarding these organizations are tax exemptions. If they are Italian based companies there is something called the Art Bonus which encourages people to donate by, "offering them a tax bonus equal to a deduction of 65% of their donation in favor of museums, archaeological sites, archives, libraries, theaters, and lyrical symphony foundations" (Saci, 2014). As far as US-based companies, like SaveVenice, most of them fall under the 501.c3 legal entity which again means that the company will not be taxed on the donation money that it

is merely passing through (Foundation Group, 1995). Despite the great strides that the private committees, in unison with UNESCO and the Italian government, have made regarding conservation of artistic heritage in Venice there is still the issue that these organizations tend to focus on large or architectural pieces or even on private collections rather than public artifacts.

2.4. Previous PreserVenice Projects

The Venice Project Center has spawned five projects under the PreserVenice name in the past, all with the goal of preserving Venice’s cultural heritage. These projects have worked from 2007 to 2011 to create the PreserVenice company as a subsidiary of SerenDPT. Their work focused on collecting data on artifacts and creating a website and mobile app to view them and donate to their restorations. In 2017, the Arti.City IQP team began an effort to solve the problem of funding by crowdsourcing donations online and expanding the public art preservation effort beyond Venice. Many of these efforts have been supported by the company SerenDPT, which is focused on the creation of jobs in the city and the preservation of Venetian heritage.

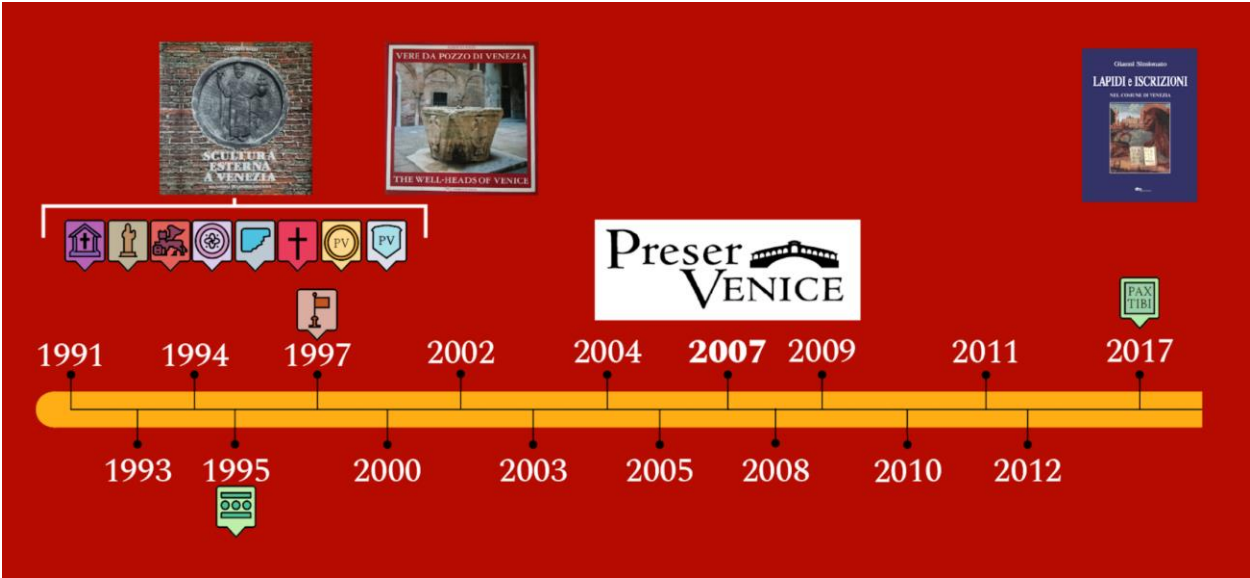


Figure 9 - The Timeline of PreserVenice

2.4.1. History of PreserVenice

Previous PreserVenice projects have laid a foundation for us to build from. They began by documenting public artifacts in the city, and then compiling all of it into a single database. In addition, the work they did on researching how to collect donations, and to analyze the state of an art piece and the order in which to restore artifacts, as well as to estimate the cost of restoration for a specific piece. The specific formulae that they derived are detailed in Appendices A and B.

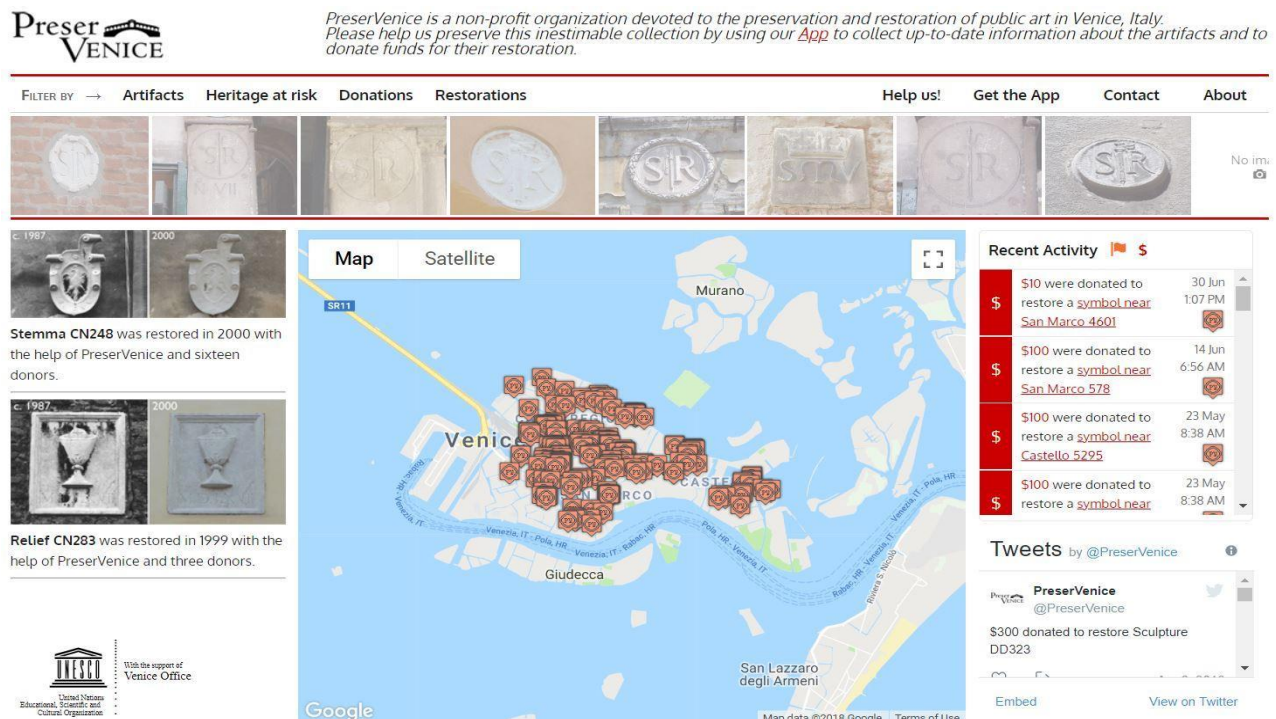


Figure 10 - The Old PreserVenice Website

Previous projects also created and worked on a preliminary website and mobile application for PreserVenice, but with no substantial work done on the website or application since 2011, its age is showing, and it still lacks key features needed before an official launch. Beyond the outdated aesthetic, much of the data on the website is currently placeholder data, and it does not provide support for donating to specific pieces.

Beyond the PreserVenice projects, several other Venice Project Center (VPC) projects made significant additions to the databases. Overall, over seven thousand public artifacts have been

documented with the City Knowledge Console (WPI, 2017), starting with an overall survey of the effects of weathering on public art in 1991 (Bezek et al. 2010), up to 2017's additions of inscriptions and bell towers. There are still gaps in the database, lacking documentation on both Giudecca and numerous inscriptions, and certain entries in the catalog are outdated.

2.4.2. Arti.City and SerenDPT

In 2017, an IQP team decided to apply the PreserVenice model of cultural preservation to cities across the world, creating the company Arti.City. Their project, *Crowdfunding Heritage Restoration in Venice with Arti.City*, focused heavily on the idea of using social media and crowdfunding ideas to solicit donations for public artifacts. To that end, they developed a website to collect funds for individual pieces. The website itself was built out of modular components, or widgets, that could be embedded on other platforms.

Because of this, a widget containing basic information about a piece, and a button to donate to its restoration could be easily put

on other websites. They relied on this fact to allow other websites and organizations with vested interests in seeing public artifacts restored advertise their service for them (Child et al. 2017).

One such company based in Venice is SerenDPT, or Serenissima Development and Preservation through Technology. SerenDPT's focus as a company is twofold. They strive to create technology-focused jobs for young Venetians to keep them in the city by supporting startups. Beyond that, their other focus is to preserve the cultural heritage of Venice. Because much of Venice's cultural heritage is in the form of public artifacts, they sponsored the Arti.City company, and are currently sponsoring the PreserVenice project.



Figure 11 - Arti.City's Logo

2.5. Social Media Strategy

PreserVenice serves no purpose if the public does not know of its existence. The best way to publicize an unknown organization to the masses is through advertisement and social media. When creating a social presence online, it is important to adopt a professional attitude in a strategic manner. Social media is a useful tool to create lasting relationships, and like any other part of a business require proper research and planning before execution. With proper planning and execution of a social media strategy, PreserVenice will be able to reach both within and outside of Venice to acquire donations for the restoration of public artifacts.

2.5.1. Social Media Platform Usage

Crowdfunding is commonly achieved using communication through social networks such as Facebook, Twitter, and LinkedIn just to name a few. These platforms promote the community-based experience that is critical to the success of any crowdfunding venture. Backers of a crowdfunding effort obtain social status and good citizenship, but may also reap rewards such as material and/or financial compensation (such as tax breaks, in this case) depending on the system put in place.

There are three main factors which have been noted, through empirical analysis, to be significantly important to the success of a crowdfunding initiative. First, active management of social media, especially Twitter, is essential before and during the campaign, according to a 2014 study (Méric, 2016). While this data is relatively fresh and up to date, the social media landscape has undergone swift and drastic changes between 2014 and 2018, allowing new platforms such as Instagram to become drastically more relevant. Second, accountability to backers with constant updates throughout the campaign builds trust between any social enterprise and both their current and potential backers. Finally, making it crystal clear the rewards they will receive by giving their donation, with a distinction between economic and social value.

2.5.2. Best Practices for Content Creation

Social platforms are an invaluable tool for reaching an otherwise unreachable audience. Social media, or media in general, come in four basic varieties: Video, Photo, Audio, and Textual. Each of these mediums for connecting with the public has their pro's and con's and their usefulness varies greatly based on individual circumstance. Photo and video are alike in that they are versatile in their utility and usability. They can be used to showcase anything of visual appeal and can be published across an array of social platforms. Video offers the ability to grab and retain a viewer's attention and manipulate their emotional reactions in favor of one's purpose. Video is a supported feature on every social media platform that is currently relevant and shows no signs of slowing down. It is important to note, that while each type of media has varying applications, intertwining them with each other will ultimately yield the best result.

2.6. Summary

There are numerous public artifacts across Venice, all in various states of disrepair. The process to restore these artifacts includes a condition assessment and prioritizing these artifacts, then assessing the cost for restoration and finally collecting funds to restore the artifact. This process is highly regulated by both UNESCO and the Italian government. There are some organizations which already aim to restore art, but public artifacts are often forgotten, and many private committees focused on art are not Venice-based. Previous PreserVenice projects have done significant work in setting up a foundation for PreserVenice, but there is still much work to do in order to launch the company. Most importantly, though past Venice IQPs have garnered a wealth of information on public artifacts, there is minimal awareness on the issue, and as such publicizing PreserVenice must go hand in hand with finalizing the company for launch.

3. Project Objectives and Scope

This project was intended to help SerenDPT successfully launch the PreserVenice startup by revamping the website and launching a social media campaign to establish a foundation for donations. To accomplish this, our team had outlined 5 main objectives, which are:

1. To update and integrate the existing Venice Project Center public artifact catalog
2. To expand the catalog of inscription artifacts
3. To finalize and publish the PreserVenice website
4. To publicize PreserVenice through the creation of a social media presence
5. To develop a protocol for the execution of restorations

Our team worked in Venice from October 22nd through December 15th, leaving seven weeks to complete all objectives. For the documentation of artifacts, we narrowed in on the the wealth of information provided by Simionato's text on inscriptions, and extensively documented the dimensions and legibility of all inscriptions which could be found across Venice. Digital photos and records of each inscription were taken and added to the CityKnowledge database. Weekly goals were set, broken down along the lines of each of the sestieri, with updates to the database made correspondingly. The website was a more fluid process adding functionality bit by bit with focuses set each week by the lead engineer. Creating a framework, accessing the domain, and being able to pull data from the CKData app were priorities. Once those were in place other functionality could be added as well. Most of the goals were set on a day to day basis as coding is often an ever-changing process.

In setting up the social media presence, there was a clear order of tasks which needed to be accomplished. The very first step was setting up the accounts that were needed and filling them out with all relevant information. Once this was done, we began posting and building the accounts. We took photos across the city of Venice, wrote engaging captions, and scheduled posts for PreserVenice's social media accounts, among other additional tasks. In doing so, we established a systematic and duplicatable workflow to ensure the longevity of the social media accounts for the company's future. The business aspect was worked on in the second half of the term once a strong foundation for the website, media, and documentation were set up. The initial goal included translating and commenting on the PreserVenice statutes and bylaws.

After that the group further investigated the process and protocol behind completing a restoration.

4. Documentation of Inscriptions

In order to successfully complete any restorations, it is necessary for PreserVenice to have a comprehensive catalog of the locations and status of artifacts. Most of the categories of public artifacts, such as coats of arms and sculptures, already had the necessary thorough documentation thanks to the efforts of past Venice Project Center teams. However, inscriptions were lacking at only thirty of the 3166 artifacts in the database. As a result, our team aimed to document the inscriptions throughout the sestieri of Cannaregio and San Polo, as well as across San Giorgio Maggiore and Giudecca, with the help of the reference guide *Lapidi e Iscrizioni* by Gianni Simionato.

4.1. Methodology

We used the City Knowledge Console to document these works and enter data in the VPC Database. This database tool was developed by Nicola Mussolino, a SerenDPT employee. Through this application, there are specific attributes of the piece that we recorded such as height, material, location, and condition. This app streamlined data collection for us, and using two cameras (Canon Rebel t5 and t6, with 70-300mm f/4.0-5.6 and 18-55mm f/3.5-5.6 stock lenses) provided by team members, our team visited the sites of inscriptions provided by an Italian reference book. The cameras used had a built-in GPS tag feature for the specific location of a photo in order to obtain approximate coordinates of each artifact, and were verified by the artifact addresses provided in the reference book.

4.2. Breakdown of *Lapidi e Iscrizioni*

For this project, we were provided a PDF of Gianni Simionato's work *Lapidi e Iscrizioni*, a reference guide to the inscriptions in Venice and the surrounding lagoon. It contained locations and transcriptions of each inscription, along with a sequential ID number. This information is useful, but does not provide a complete or up-to-date documentation of every inscription.

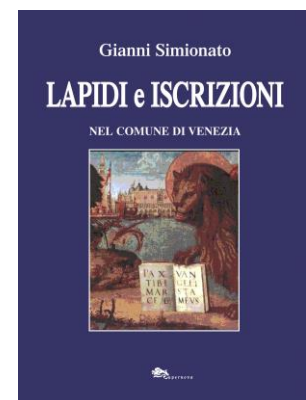


Figure 12 - Simionato's
Lapidi e Iscrizioni

To start, this data was parsed into a .csv spreadsheet, which was in turn uploaded to Google Docs for ease of use and clarity. Four columns were created from this data - ID# (using the sequential order provided by Simionato), Address, Inscription, and Extra Info (further details on the location to clarify more about the address). To further aid in the documentation process, extra columns were added - “Premodern?” to signify if the inscription was either dated to before 1797 or contained no date, and “Documented?” to ensure no inscription was doubled-counted and to track progress efficiently. Data was also collected on the number of characters in the inscription, the number of damaged characters, and any damage to the body of the inscription itself outside of the characters, and tracked on the spreadsheet. After an artifact was documented, addresses and extra info were updated to make it easier to find any locations.

	Prem	ID#	Documented?	Address	Inscription	Extra info
SAN POLO	yes	684	YES	ponte di rialto	paschale ciconia venetiar duce	sui due finachi del ponte
	yes	685	NO	fondamenta de la preson 1	il serenissimo prencipe fa saper et e d'ordine	palazzo dei camerlenghi
	yes	686	YES	fondamenta de la preson 1	andrea gritto venetiarum prencipe mdxxv	
	yes	687	YES	riva del vin 19	principatus leonardi; margine di; x savi sopra	palazzo dei dieci savi; s
	yes	688	YES	campo san giacomo de rialto	ne vicissitudo temporum indul	facciata della chiesa
	yes	689	YES	campo san giacomo de rialto	corrutam templi exteriorem partem	facciata della chiesa
	yes	690	NO	campo san giacomo de rialto	sit crux tua vera salus huic christie loco	abside della chiesa
	yes	691	YES	campo san giacomo de rialto 101	principatus leonardi laurendani inclitit ducis	
		692	YES	campo san giacomo de rialto 101	lapis legibus repi edicendis	pietra del bando
	yes	693	NO	naranzaria 136/a	anno dominice incarnatonis	
	yes	694	NO	sotoportego del banco giro 211	antonio o sia z antonio rinaldi qv gia como	
	yes	695	NO	erbaria 139	tariffa delle utilita del pesador de frutti	nel pilastro
	yes	696	NO	pescaria 341/c	lunghezze minime pemesse per la vendita	vedi anche le lapidi 170.
		697	NO	campo de le becarie 372	in questa casa abito vittorio salmini	
	yes	698	NO	calle dei do mori 433/a	1649 dei sco di santo alvise di vene	

Figure 13 - Data Collection From Simionato's Work

4.3. Collection of Data

Since the missing factor in *Lapidi e Iscrizioni* is the lack of images to determine percent of illegible characters and other damage, we needed to collect data on each premodern inscription. After the PDF was parsed and the .csv was formatted, we had a list of addresses sequentially ordered across each sestiere, and from that list we plotted points on Google Maps which helped us to outline a general route to follow to efficiently document artifacts.

If the location contained the artifact, a photo was taken of the inscription, and later edited in Adobe Lightroom to ensure clarity of the image and that each inscription was presented as aligned as possible. However, some inscriptions were either not at the exact location or

completely unable to be found; in the former case, the proper location was documented, and for the latter, the artifact was passed for the time being, and checked again on a second pass through later. Additionally, some inscriptions not in the PDF were found, and those were documented along with their location and any extra information needed to find again.



Figure 14 - An Example Inscription With Deterioration

After data collection, every image was processed in Adobe Lightroom, and condensed down from RAW image type to 7 megapixel .jpegs for maximum quality to size ratio. The spreadsheet was then updated with any alterations, legibility statistics, and notes of any damage which would need to be restored.

4.4. Updates to the Database

Our plan to upload inscriptions to the database was originally to use the CKData Input application designed by SerenDPT in order to keep consistency with past teams. However, we were ultimately unable to use the application for its purpose, so we had to find a temporary solution until the data could be properly stored. All inscription images were uploaded to Google Drive, and a spreadsheet was created, with each column referring to a field in the database. The

spreadsheet was then downloaded as a .csv, converted to JSON, and then ran through a script which allowed the website to process the data as entries in the database.

4.5. Results and Analysis

Before our work, there were only 30 inscriptions in the database, scattered across the city. After our methodical approach to parsing Simionato's work into workable data, we have increased that number to 126, with 82 gained through Simionato, and 14 found while walking through the city.

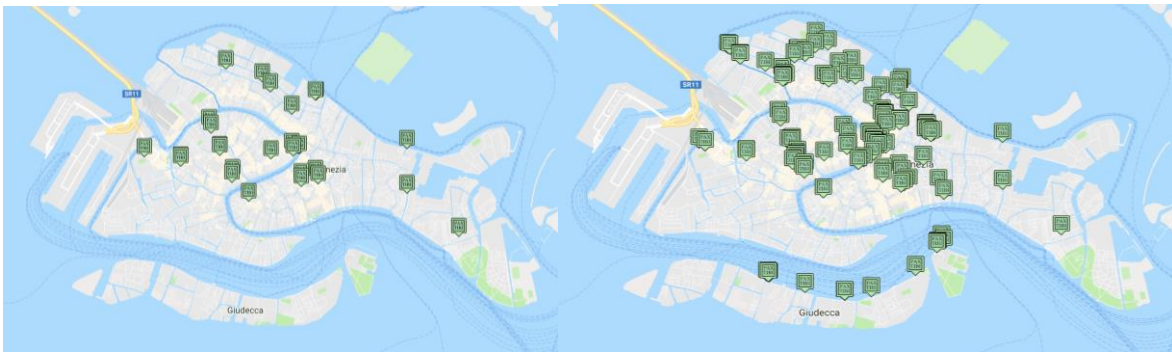


Figure 15 - Before (2017) and After (2018) of Inscriptions

Of these artifacts, **33%** have damage to the legibility of an inscription, **44%** have some structural damage, ranging from small cracks to large chunks missing, and **10%** of inscriptions have extensive damage to both. The oldest documented inscription from *Lapidi e Iscrizioni* was in Cannaregio, at Campo Santi Apostoli. Dated to 1351, this short inscription was found on a 7th century church, one of the first in Venice, commemorating minor restoration work and the founding of a “School of the Twelve Apostles”. Another inscription in Castello at the Basilica di Santi Giovanni e Paolo was not in *Lapidi e Iscrizioni*, so no transcription exists to confirm the faded bottom line of the inscription, but it seems to be dated to 1278.

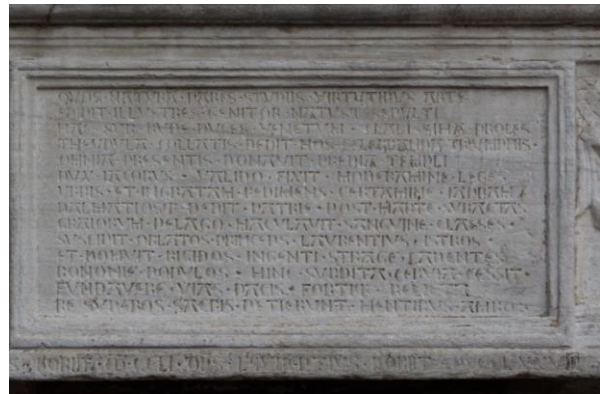


Figure 16 - The Oldest Inscriptions Documented, 1351 AD (Left) and 1278 AD (right)

The longest inscription found was in Cannaregio, at Calle Dolfin 5622. A law set by the Doge in 1777, this inscription was an impressive 2215 characters long, with less than 10 characters illegible. However, the edges of this inscription are cracked, and the stone itself is noticeably weathered across the face of the inscription.

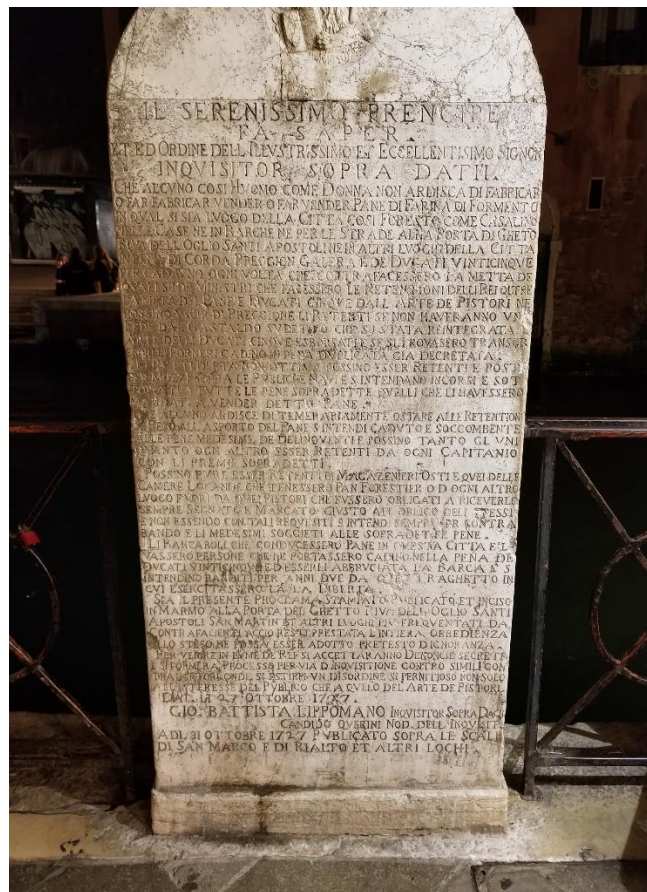


Figure 17 - The Longest Inscription Documented

4.5.1. Recommendations

With inscriptions better documented, the PreserVenice catalog is now more complete, and will allow for the company to both present more information on the city. Although 96 new artifacts were added to the database, Simionato's *Lapidi e Iscrizioni* contains over 1000 inscriptions, with at least half of those being premodern, so there is room for much future growth. The majority of our team's efforts were dedicated to Cannaregio, San Polo, and Giudecca, so this leaves much room to expand throughout the other sestieri, especially in San Marco. This wealth of information brought by this year's team and Simionato's work will help find donors for select artifacts, especially with improvements to the website and a social media campaign set underway.

5. Cost Estimates and Prioritization Analysis

Once artifacts are cataloged, one must assess the condition, cost estimation, and restoration priority of each. These three assessments take time to calculate, but are an integral part of the restoration process. Each stage of assessment builds off of the prior information, with the condition factoring into how much it will cost to restore, and the prioritization being based off of both the condition and cost. After this section of the restoration process is complete, PreserVenice will be ready to meet with restorers, put out bids, and ultimately accept donations.

5.1. Condition Assessment Data Analysis

Much of the VPC condition assessment data has been done by past teams, so our team only had to assess the inscriptions that we ourselves added. The rest of the data points had condition data either from the Rizzi books (labeled condition_in_1987) or from past WPI teams, with almost all the artifacts containing the attribute condition_in_2000 and some containing condition_in_2007 and condition_in_2011. Using this system a piece of public art can be considered one of 6 options: 0.unknown, 1.terrible, 2.bad, 3.poor, 4.fair, 5.good, or 6.excellent. This data will have to be continuously updated by PreserVenice, as it is ever-changing data - an artifact that could be 'good' one day might be considered 'poor' just one year later.

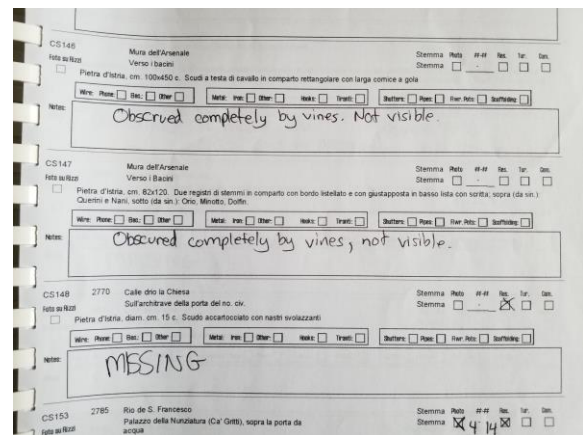


Figure 18 - Previous Work on Cataloging and Assessment

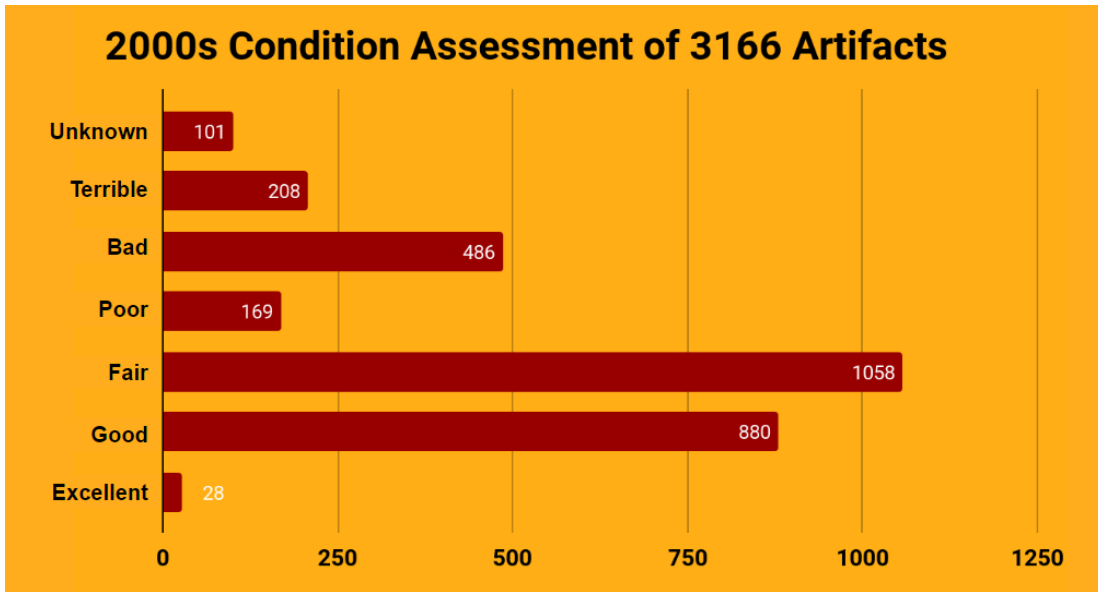


Figure 19 - Condition Assessment Data

Figure 19 above represents the condition assessments of all past teams categorized grouped into these seven categories. Our team created this graph by taking every data point in the erratic sculpture tables, and printing out the CKID (an identifier for each object) and the condition assessments. We then parsed that data into an Excel spreadsheet using Excel macros, and once the the 3166 points were formatted, we were able to make various graphs to depict the data. There is a wide spread of data, with the majority of points being considered fair or good, and a sizable amount considered bad. While we were pleased to see so many artifacts in the good section, we also realize that these conditions will only get worse, not better. Additionally, it is concerning how many artifacts are considered bad or terrible, as some of these pieces may be beyond repair. With this data, we were then able to move onto the next sections and create cost breakdowns and prioritize the pieces.

5.2. Cost Estimations

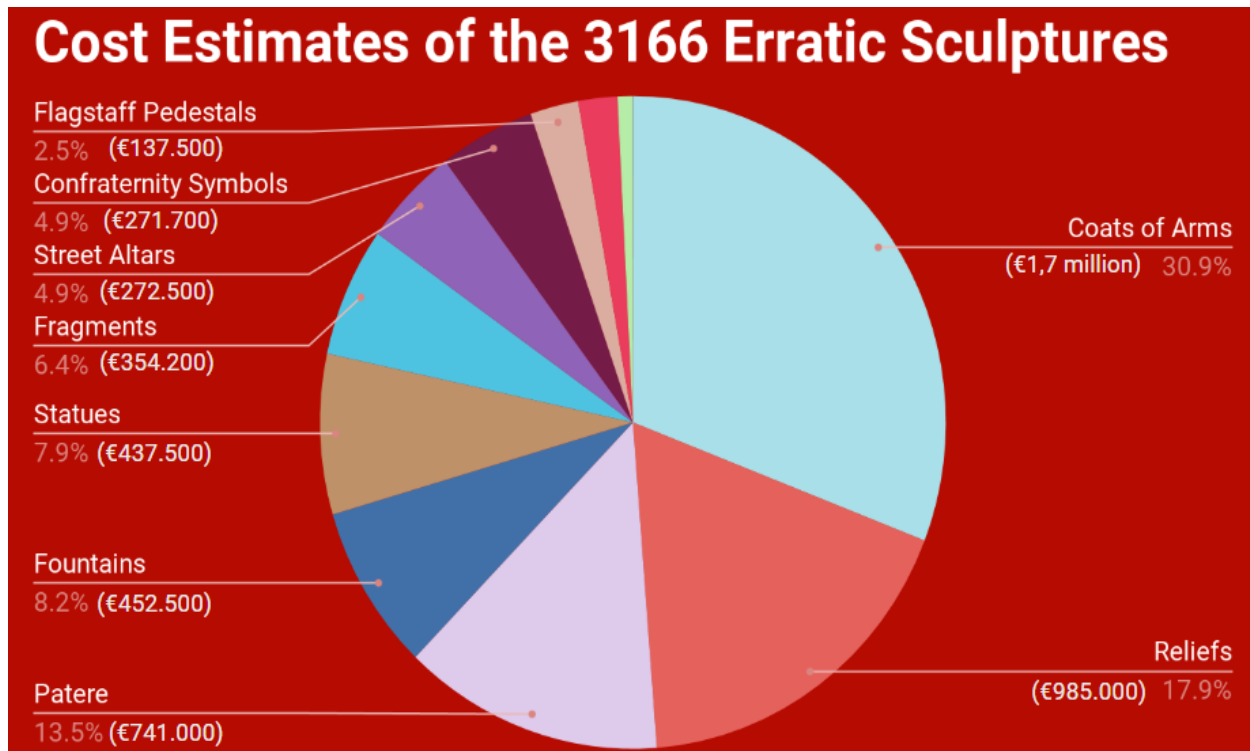


Figure 20 - Cost Estimate Data

Once our team analyzed the condition assessment data, we were able to combine data sets and create cost estimates of each type of public art. Figure 20 above is a graph showing how much money it would take to restore every single artifact of a certain type, calculated as the estimate of each type multiplied by how many of that type there are. This information can also be shown in a table form, as in Figure 21. All of these cost estimations are done based off the equations created by past IQP groups (see Appendices A and B), and were additionally verified with an architectural student we spoke with. These initial estimates take into account multiple variables including architect costs, condition, type, age, damage, size, and even proximity to canals. To calculate the estimations for each type, we averaged the attributes and created a very general cost for each artifact type. Additionally, we grouped similar artifacts like inscriptions and decorations, and reliefs and sculptures. Overall, the symbols cost €1300, the inscriptions, fragments, and decorations have been grouped together and cost €1400, the crosses and patere come in at €1500, coats of arms cost €1540, and then the bigger pieces like flagstaff pedestals, fountains, reliefs, sculptures, and street alters all range around €2500 per piece. In addition to these costs, each artifact also has an added approximated €2180 cost for scaffolding, which is

Type	Overall Cost Per Type (€)	Cost Per Each Artifact (€)
Coats of Arms	1701900	1540
Reliefs	985000	2500
Patere	741000	1500
Fountains	452500	2500
Statues	437500	2500
Fragments	354200	1400
Street Altars	272500	2500
Confraternity Symbols	271700	1300
Flagstaff Pedestals	137500	2500
Crosses	111000	1500
Inscriptions	42000	1400
Decorations	1432	1400

Figure 21 - Table of Cost Estimates

standard for renting scaffolding for these restorations. This cost can be potentially cut as PreserVenice grows and has its own equipment and restoration crews. The type-by-type cost breakdown is useful when making individual bids, but PreserVenice also needs to consider the bigger picture - the cost of every artifact restoration. Looking at these numbers, it would take €5,508,232 for just artifacts, with an estimated €6,901,880 for the overall scaffolding costs, resulting in a

net total of **€12,410,112 to complete restoration for every single artifact**. This is just an estimate, and thus is not entirely accurate, but the exact actual cost will be likely near this number. When that number is broken down and divided by the number of tourists that visit Venice each year (approximately 20 million) it amounts to around €0.50 per tourist in order to meet this monetary need. With this perspective, the €12 million goal seems much more attainable.

5.3. Prioritization of Restoration Efforts

Finally, with both the condition assessment data and cost estimation breakdown, our team moved toward prioritizing the pieces in ranking them by which should be focused on first for restoration. When prioritizing we had to take into account how much the restorations would cost, which pieces were in bad condition but not in such bad condition that they could not be saved, and even things like significance and cultural impact. In the end we based most of our prioritization recommendations off of condition with our high priority section accounting for 1713 of the artifacts. These are pieces that are in the ‘bad’, ‘poor’, or ‘fair’ condition segments, as displayed in Figure 22. We have marked them as high priority because they are artifacts that are in bad enough shape that they desperately need restoring, but they are not in such bad condition that they are past the point of being able to be restored. Within this high priority segment itself there is prioritization with bad being of the utmost importance because these pieces are the most at danger of being past saving, next poor, and finally fair. 61% of public artifacts are

considered high priority. Using this 61% figure, one can estimate that it would take around **€7 million to restore all high-priority artifacts**. When this is broken down by tourist, it breaks down to **€0.35 per tourist**, an even more reasonable number than before.

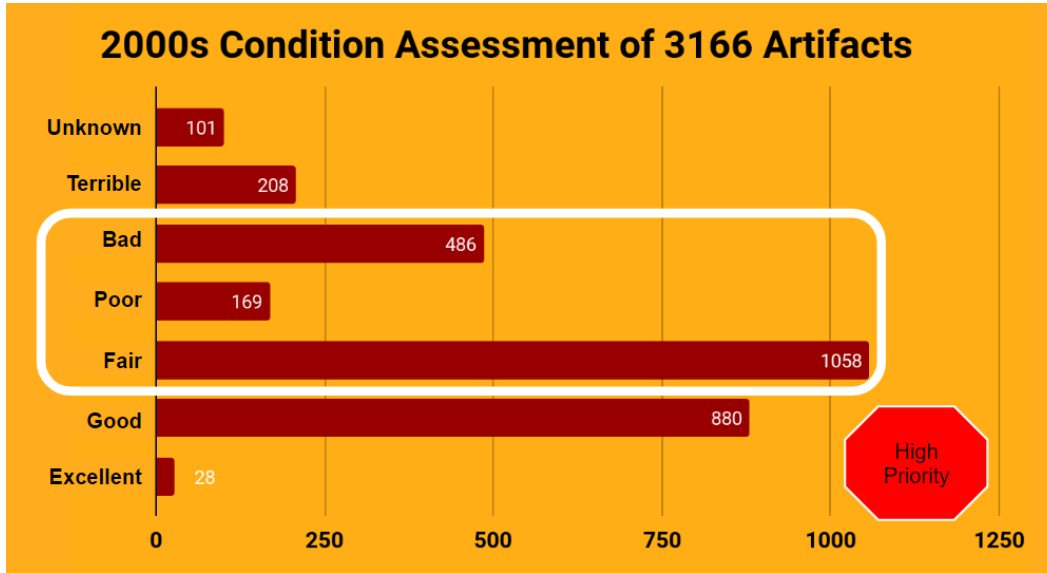


Figure 22 - Highest Priority Category for Restoration

The next prioritization segment is medium priority, as shown in Figure 23 on the next page. This consists of the 208 artifacts in ‘terrible’ condition, which are deemed in such bad condition that they can not be restored and preserved fully, and are at this point beyond recognition. Though we can not completely ignore these artifacts, they are not as important as the ‘bad’, ‘poor’, or ‘fair’ sections due to the sheer effort required for a full restoration.

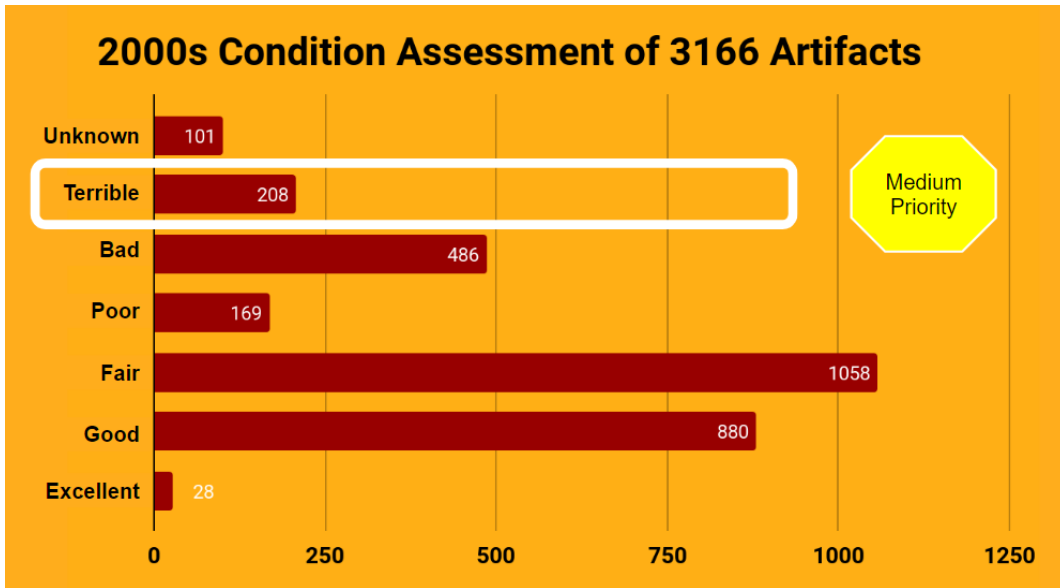


Figure 23 - Medium Priority Category for Restoration

The final prioritization section is the low priority (Figure 24) which is the 908 artifacts that have the condition assessment of ‘good’ or ‘excellent’. These pieces are in great condition and have faced little deterioration or vandalism, and thus can be left without any restoration for now. In the future, as further condition assessments are done, these artifacts will need to be looked at again.

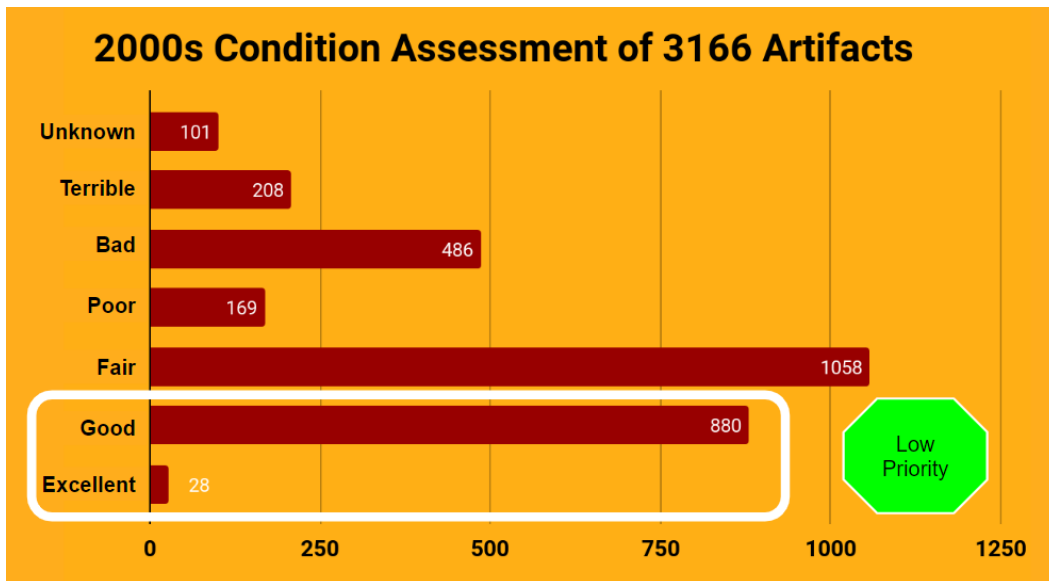


Figure 24 - Lowest Priority Category for Restoration

5.4. Recommendations

Much of this data that was analyzed is current as of right now, but condition of these public art pieces is always changing, and as such the condition assessments, cost estimations, and prioritizations will need to be constantly updated as well. We believe that PreserVenice should be doing condition assessments every two years in order keep up to date data points and maintain accurate information for donors. One way that this data could be constantly updated is by **crowdsourcing the data through the web or mobile application**. This idea has been talked about with past teams but has not been fully realized. Using a sightseeing mobile app about public art but adding in a condition data feature could prove to be extremely helpful for PreserVenice. Plus, if enough people use the application there will be a large enough sample size that the data could have some reliability. Finally, we believe that PreserVenice will save a lot of money if they invest in scaffolding themselves. Scaffolding costs around €2200 to rent, set up, and use in Venice and with PreserVenice needing it for almost every restoration those costs will add up quickly. As a result, with PreserVenice owning their own equipment they may be able to save upwards of **€1000 per restoration** on renting scaffolding, a significant cost decrease.

6. The PreserVenice Website

Although PreserVenice already had a website, our goal was to prepare the company for launch, and with that we wanted to present a new website which was up-to-date in both form and function. The old website had some functionality, but did not adhere to modern design standards or practices either aesthetically or in the code base. With that in mind, we used the old website as a reference for features, but coded the new website from the ground up using the React framework, based around Google Material Design standard for its overall aesthetic.

6.1. Back-end Setup

In deciding what technologies to use for the website, we decided to stick to more modern but well-proven tools, such as React for the front-end, and Node.js for the back-end.

6.1.1. Development Framework

There were a number of frameworks that we used to create the website. The most notable among them is React, a front-end framework for JavaScript. It stood out from other frameworks for its learnability, fast performance, and ability to create easily-reused components. For styling the website, we used the Material UI package. Material UI is a library of React components that adhere to Google's Material Design standards. We opted to use this library in our project to ensure that everything looked clean and thematically consistent with itself. Material UI further comes packaged with the JSS library, which is a solution for CSS styling done entirely in JavaScript. It allows for easy creation of custom-styled React components.

6.1.2. Web Server

In addition to the externally-visible website, we also created a web server to provide additional functionality. We developed the website to run on Node.js, which made it easy to share code between the website and server. The server had two primary purposes: to provide faster artifact queries than the CKData database, and to provide a daily sample of artifacts.

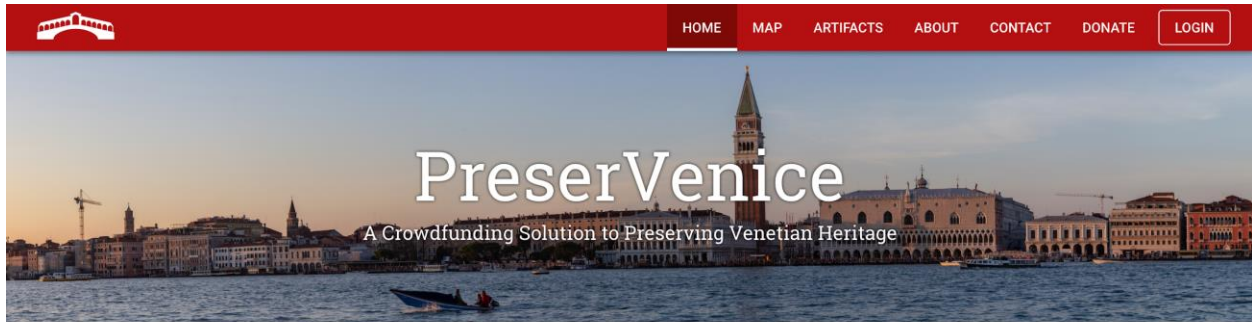
Faster queries were achieved by querying the CKData database hourly, and caching the results. When the server itself is queried, it serves the cached data. An added benefit of this is that irregular data from the database can be normalized by the server. The daily sample currently is a selection of three random artifacts from the database. In the future, the daily sample creation algorithm can be expanded to factor in information such as priority, donation progress, and likes, when that data exists in the database.

6.2. Website Design

For the website's design, we tried to create a modern aesthetic that made use of Google's Material design standard. Components on the website were kept as simple as possible to make their features as easily accessible as possible.

6.2.1. Homepage

For PreserVenice's new homepage, we elected for a more minimalist design, featuring a prominent banner photo of the Venetian skyline, and the PreserVenice name. Below it we display some information about PreserVenice and its mission. Below the text, we show a selection of three artifacts in need of restoration, showing images, descriptions, and donation progress. Below the featured artifacts is a history of the art restorations that PreserVenice has performed. At the top of the screen is a navigation bar, showing the current page, and allowing easy access to all parts of the website.



PreserVenice is a non-profit organization devoted to the preservation and restoration of public art in Venice, Italy. Please help us preserve this precious collection of heritage by using our website to collect up-to-date information about the artifacts and to donate funds for their restoration.

The city of Venice, Italy contains a large and unique collection of artifacts that are displayed on public view, dating as far back as the year 700 AD. The collection includes reliefs, roundels, confraternity insignia, coats of arms, flagpole pedestals, inscriptions, wellheads, street altars, and a variety of other secular and religious symbols of Venice's material culture. These artifacts have been largely neglected by the numerous preservation efforts that have been undertaken since the historic flood of 1966. This vernacular heritage, which records the various stages of the thousand-year evolution of Venice's history from the perspective of the citizens of yesteryear, is being saved by today's citizens through a combination of high technology, social networks, and citizen engagement.

Artifacts in Need



Figure 25 - The New Homepage

In addition, the homepage includes a section detailing PreserVenice's completed restorations. We hope that this will encourage users to donate to restorations as it will inspire confidence in PreserVenice's ability to follow through with restorations. In the future, we hope to flesh this section out with more preservations as they are completed.



Figure 26 - Placeholder for Future Restorations

6.2.2. Daily Sample and Artifact Cards

The daily sample of artifacts in need of restoration is generated daily by the web server. At present, artifacts are selected at random from the set of artifacts with images and sufficient data to restore. In the future, this can easily be adapted to show a tailored selection, such as a specific type of artifact each day, or artifacts close to their restoration goals. At present, an artifact card is rendered for each sample artifact, displaying its name, a photo of it, a brief description, and its donation progress. Buttons to like or donate to the artifact in question are also included. An example of a sample of artifact cards is shown below:

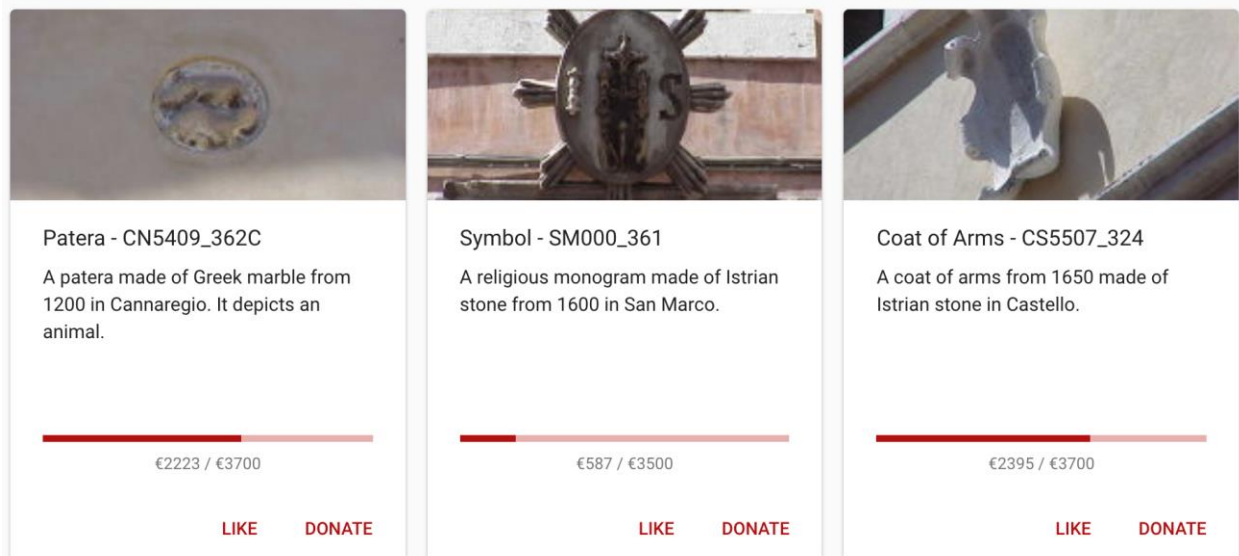


Figure 27 - Example Daily Artifact Showcase

6.2.3. Map Page

The “Map” page allows the user to view artifacts on a map of Venice. Each artifact is given an icon on the map corresponding to the type of artifact that it is. On the side of the screen is a filter section, allowing the user to create customized filters of artifacts. As an example, the user may view all artifacts that are less than 1 meter above the ground, if they are interested in what artifacts are at risk of flooding damage.

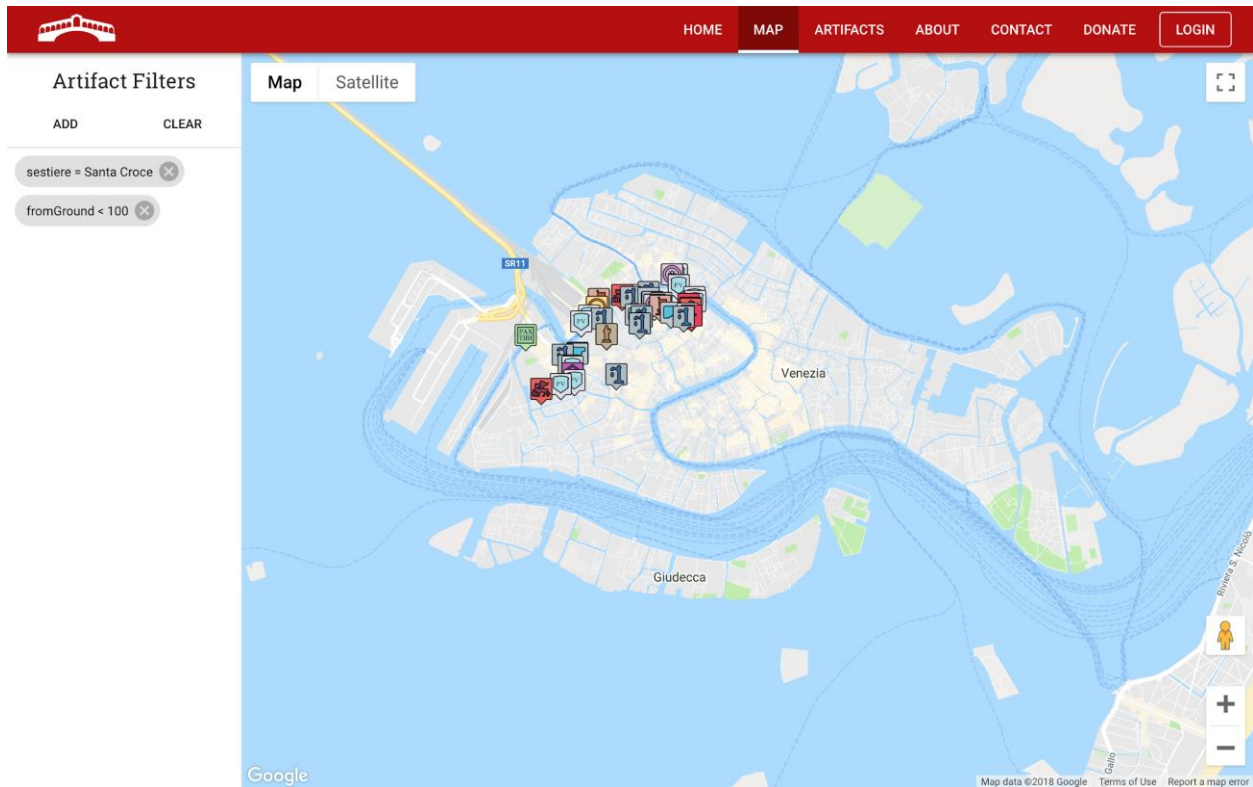


Figure 28 - The New Map Layout

The filters allow for fine-grained control over which artifacts are viewed. A user can create filters for artifacts' individual properties, and can control how that value is compared. Fields such as sestiere and type are compared purely for equality, so one can check if the sestiere is one of a set of sestiere, or whether the type is a certain type. Numerical fields have more control in comparison, such as testing whether the field is equal to a specific value, less than that value, greater than the value, etc. This filter system can easily be expanded in the future to work upon all fields of the artifact that we have in the database.

6.2.4. Artifacts Page

The "Artifacts" page functions similarly to the "Map" page, but instead of showing the artifacts on a map, they are displayed in a table, allowing easy access to more detailed information about artifacts, such as the year they were created. In the future, this table can be easily adapted to allow sorting by specific columns, such as sorting by approximate year, by restoration process, or by restoration priority.

The screenshot shows the 'ARTIFACTS' page of the PreserVenice website. At the top is a red navigation bar with links for HOME, MAP, ARTIFACTS, ABOUT, CONTACT, DONATE, and a LOGIN button. On the left, there is an 'Artifact Filters' sidebar with 'ADD' and 'CLEAR' buttons, and two active filters: 'sestiere = Santa Croce' and 'fromGround < 100'. The main content area displays a table of artifacts with the following data:

Artifact	Type	Sestiere	Year
Coat of Arms - SC000_30C	Coat of Arms	Santa Croce	1600
Coat of Arms - SC1781_156B	Coat of Arms	Santa Croce	1300
Coat of Arms - SC310_40	Coat of Arms	Santa Croce	1710
Coat of Arms - SC2060_180B	Coat of Arms	Santa Croce	1350
Coat of Arms - SC297_39	Coat of Arms	Santa Croce	1600
Coat of Arms - SC1781_156C	Coat of Arms	Santa Croce	1300
Coat of Arms - SC1177_101B	Coat of Arms	Santa Croce	1300
Coat of Arms - SC2124_192B	Coat of Arms	Santa Croce	1350
Coat of Arms - SC2090_187	Coat of Arms	Santa Croce	1615
Coat of Arms - SC559_55	Coat of Arms	Santa Croce	1400

At the bottom right of the table, there is a pagination control showing 'Rows per page: 10' and '1-10 of 48' with navigation arrows.

Figure 29 - Artifacts Displayed in a Tabulated Format

6.2.5. About and Contact pages

The “About” and “Contact” pages were kept simple, allowing the user to easily view more information about PreserVenice and how it works, as well as to see how to best contact the organization.

6.3. Recommendations

While we are pleased with the current state of the website, there are definitely many more areas into which to expand the website in the future.

6.3.1. Future Website Features

First and foremost, most critically to the functionality of the website, would be to add integration with the Swarmoola API. This would allow the website to properly process donations for specific artifacts and other restoration projects.

Secondly, it would be important to add social media features to the website. As an example, integration with Instagram could be added to the homepage of the website to display a feed of posts. This would enhance the dynamic aspect of the website, keeping people interested and coming back to the website. Another interesting feature would be to add the ability to “like” an artifact. This would then allow us to prioritize artifacts that are more “liked” by the public for restorations. This would then necessitate some form of user authentication. This could be done through Google’s login API, or potentially Facebook’s API.

In addition, while there is a “completed restorations” section on the homepage of the website, it is currently entirely static. A future task could be to determine a way to store information about PreserVenice’s restorations, and load those dynamically on the website.

Finally, the artifacts table could stand to be improved somewhat. It would not be too difficult to allow the user to select which columns they want to display in the table from all the properties of artifacts, and then to allow the user to sort by those properties. In addition, a future group could add a search field that searches through all of each artifact’s textual components.

6.3.2. Website Performance Notes

We feel that the performance of the website is good enough for most use cases, but there are still some changes that could be made by future groups to improve it. This will prove especially helpful in the long run, as website performance will naturally decrease as more features are added. One potential improvement could be generating smaller resolution, thumbnail versions of artifact images to be loaded where full-size images are not needed. While beautiful, high-resolution images are important to have in our database, they are not needed everywhere on the website, and loading such high-resolution images can take a considerable amount of time on slower connections.

Another potential avenue of improvement for the website would be to restructure it to work as a single-page app. This may incur a single longer loading time when loading the website initially, but would allow for interactions within the website to perform much more quickly. Notes on how this could be accomplished can be found in Appendix H.

As a final note on performance, the current production code of the website is not “minified.” In practice, this means that the size of the website’s code that must be loaded whenever the user loads the website has not been optimized as much as possible. Our group encountered problems with our tooling when trying to generate the minified version of the website, but it is possible that as those tools mature, future groups will be able to easily generate minified code for the website. Notes on the specific issues we encountered with this can be found in Appendix I.

6.3.3. Mobile Website Improvements

The UI package that we used, Material UI, offers support for multiple mobile-friendly components, such that the look and feel of the website can vary dynamically depending on the size of the screen used to view it. While we tried to remain mindful of mobile devices when creating the websites, there is definite room for improvement. Notes on our recommendations for future groups can be found in Appendix J.

6.3.4. Database Improvements

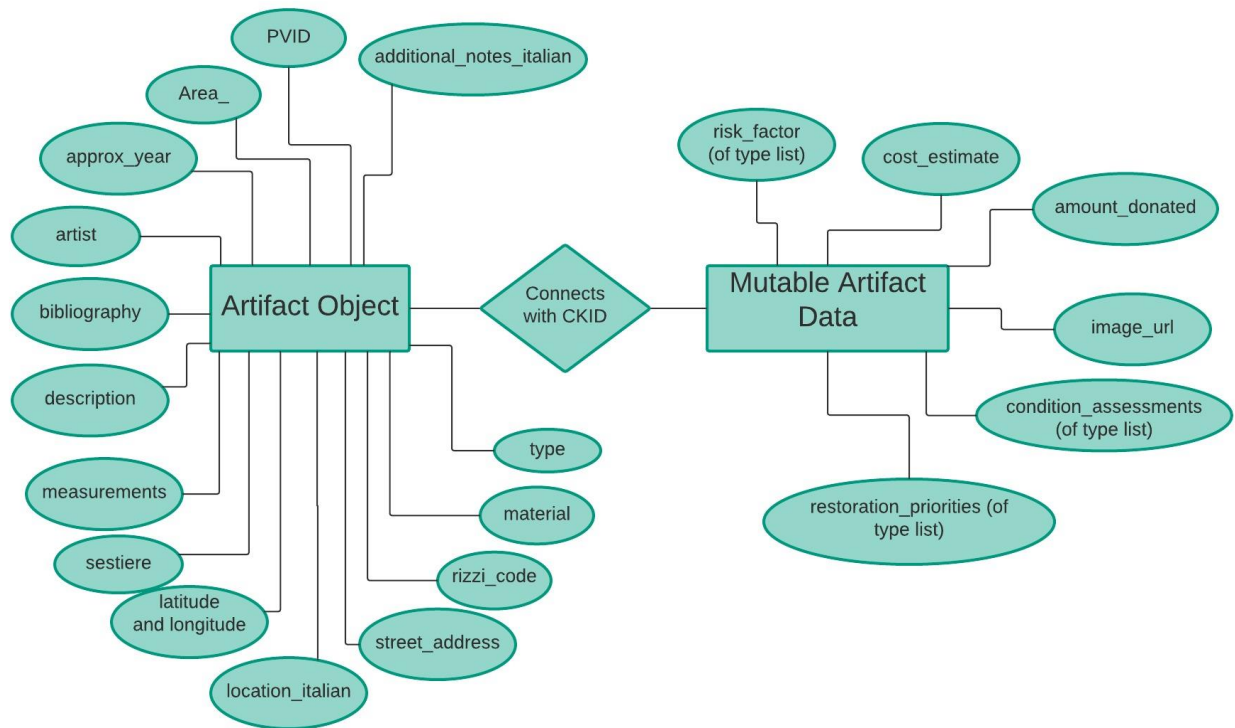


Figure 30 - Diagram Displaying Suggested Database Layout

On top of the above proposed changes, one of the most important changes to be made involves the CK database, where all of the public artifact data is being stored. Currently, many of the tables are scattered and are hard to merge together when needing to pull data. Though there is a table that has some merge data there is still more to be done specifically with the church floors and wellheads. Another feature that would be extremely helpful would be the **ability to add attributes on every object in a table and more easily add items that have been documented.**

Though these changes would make the database better in its current form in the FireBase format, the database itself would be much better **in a relational form.** With the proposed change from FireBase format over to Hive Engine relational format the database will be much better as a relational database. We propose that there is only one table for each type of artifact containing objects that each contain their CKID and all the immutable attributes shown below in the ERD (Entity-Relationship Database). With there being a different table for each type of artifact the attributes can also be much more descriptive and give more in depth information

about the public art. These tables will have the CKID as both a primary key and a foreign key that will connect to another table. This other table will contain every single artifact with their CKIDs and their mutable fields which will all be standard across every type of artifact. This way only this table will be updated while the other can remain static and when pulling data from the database to the website, most of the information for each type can be pulled from this table and it will all have **standardized attribute names**. These mutable fields are shown again in the ERD below. We believe if these suggestions are taken, the excellent data that has been amassed over the years with past PreserVenice teams can be organized in a more useful and efficient way. Finally, a future group will need to upload the inscription data to the CKData app. Information about the data and where it is currently located can be found in Appendix F.

7. The Launch of PreserVenice

Through the development and execution of a social media strategy on Instagram and Facebook, we were able to pioneer a strong online presence for PreserVenice. Additionally, through the use of Zazzle, we were able to make an array of custom merchandise to both further raise awareness and make profit to be put towards restoration. Furthermore, our team has created a business infrastructure that will aid in the organization behind the scenes for the upcoming PreseVenice administration.

7.1. Publicity Through Social Media

In any business or organization, but especially in one where you are fundraising and rely entirely on donations from the public, it is integral to have a plan to raise awareness for your cause. In today's world, the most productive manner in which to do this is through social media, as it has unlimited potential and widespread popularity.

7.1.1. Instagram

When creating the social media presence for PreserVenice, we were starting from complete scratch. Logically, the first step was to create the accounts which we decided would be most important. In order to make any accounts, we needed to start with an email address, so we signed up for preservenice.org@gmail.com. Once this was done, we moved on with creating the Instagram account with the handle "preservenice". To our surprise, it was already taken. However, we found that it had previously been created by Sarah Puccio, a SerenDPT employee. Once we acquired the login information from her, we logged in and promptly changed all the credentials to match the standard email and password combo we had chosen.

While the account existed, it was still bare-boned. It consisted of zero posts, followers, or a biography section. First, using a combination of the PreserVenice mission statement and a creative call-to-action, the biography became "We are a non-profit devoted to the preservation of public artifacts in Venice, Italy. Follow to support us and stay up-to-date on Venetian culture! {italian flag emoji}". Additionally, we added our organization type as "Nonprofit Organization" and added a link to our website. Finally, we drafted up a new logo, completing our Instagram profile.

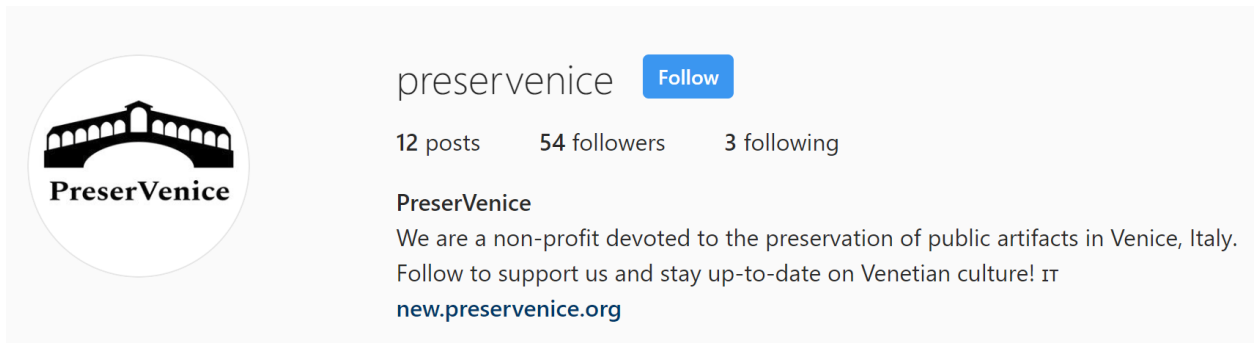


Figure 31 - PreserVenice's Instagram "Biography"

Once our profile was complete, it was time to start making posts and gaining followers. We reached out to fellow IQP members and used our personal profiles to gain ~15 followers. While these followers didn't technically help our cause, it did add some legitimacy to our profile. When it came to actual posts, we decided that alternating pictures of artifacts with pictures of scenery would be the best way to showcase PreserVenice's impressive catalog while also maintaining an engaging aesthetic. Each picture was paired with an educational caption, with the intention to raise awareness of PreserVenice's history, mission, and progress. Each one included some sort of call to action, in order to maintain the engaging nature of Instagram.

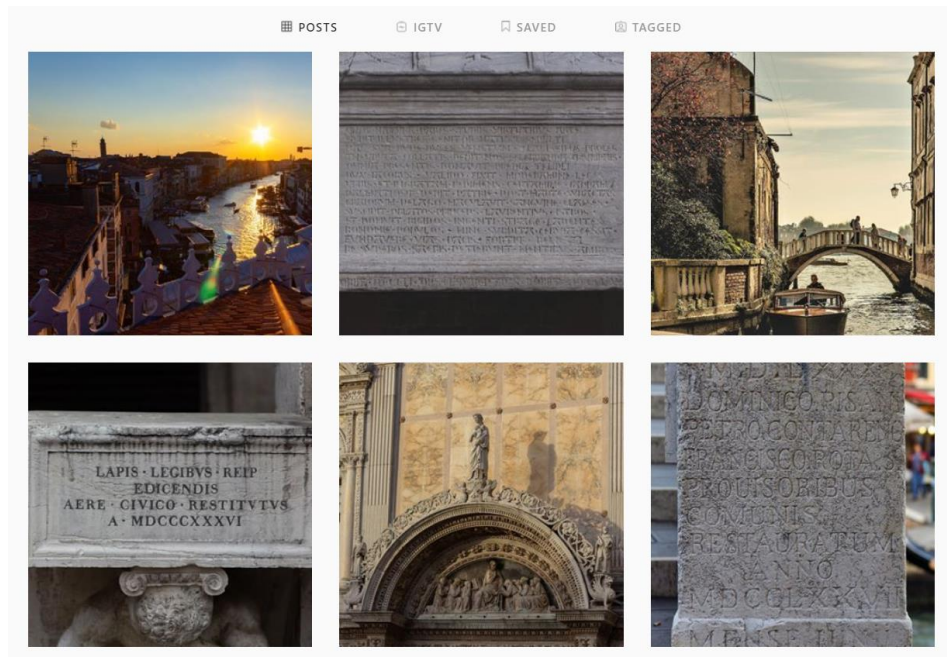


Figure 32 - PreserVenice's Instagram Feed

With the framework in place and a solid plan of action, it was time to start experimenting with some of the more advanced features of Instagram. To reach more people, we decided to add some hashtags to each post, as represented in Figure 33. Once we began incorporating these into our social media strategy we saw twice the amount of engagement as without. Another strategy we employed was tagging other pages on our posts. We decided to tag different pages at random with the word Venice in their handle to see if they would interact with our page. While this wasn't an extreme success, out of the 10 pages tagged, 1-2 would respond with a like or a comment. All of these factors put together brought us up to about 40 followers, with about half of them being organic, and significantly increased our day to day engagement. Finally, we reached out to various Instagram pages based in Venice or Italy, asking if they would publicize our page through their account. We are currently waiting on the one page, with about 60k followers, which responded and agreed to help our page. We believe that this publicity will help to gain about 60 followers, bringing us up to 100.

#venice #italy #venezia #italia #art
#conservation #nonprofit #restoration
#artifact #donate #charity #community
#beauty #preservenice #bridge #canal
#grandcanal #love #behindthescene
#startup #support #makeadifference

Figure 33 - Example Hashtags Used for the PreserVenice Account

The last feature we decided to take advantage of is the ability to permanently post a story to the top of our page. We were concerned that those who were new to our page may want more information on who we are, but given the nature of social media, would want it in an easy to find and easy to consume manner. In 3 "slides" shown in Figure 34 below, we tell them that we are PreserVenice, we are an organization dedicated to preserving Venetian heritage, we have documented over 7,000 artifacts since the 1990s. In the last two slides, we ask them to follow us to support our cause and offer a form for them to reach out with any additional questions.

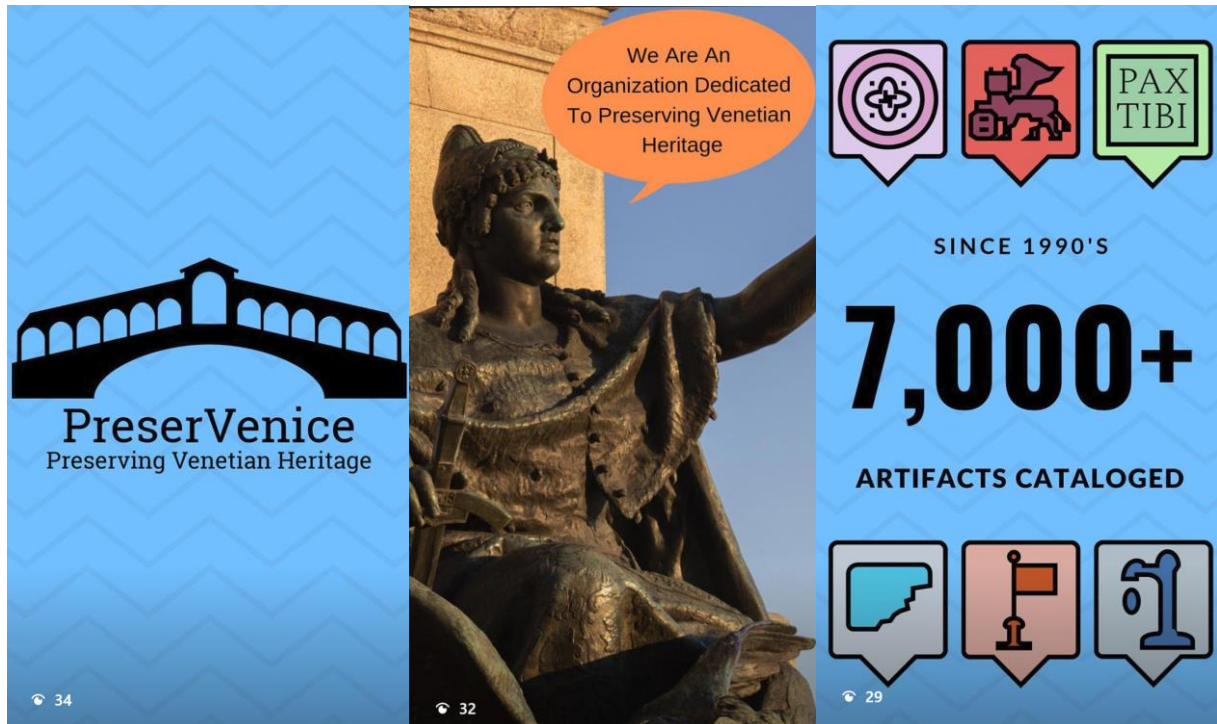


Figure 34 - PreserVenice's "Our Story" Carousel

7.1.2. Facebook

When we set up the Instagram account, we also set up a Facebook business page on which we could post the same things we were posting to Instagram, but to a different audience. The process was almost identical to Instagram. While working through this process, we found that Facebook was a more difficult avenue to work with, as it has a wide range of functionality and is more complicated when it comes to connecting with an audience. However, the framework for future experimentation is there, and we have had other people mention our page and interact with our posts already.

7.2. Future Advertising and Customer Outreach

Another area that our team has discussed is customer outreach including eye catching infographics around the city as well as customer emails thanking them for donating. While PreserVenice has broken into online outreach it is still lacking in physical advertising on the streets. Some of the potential infographic posters that we have developed can be seen below.



Figure 35 - Posters for Advertising PreserVenice

These graphic posters are bright, bold, and eye catching and we feel that with these hung up around the city tourists walking by may stop, look, and even be inclined to donate. Moreover, these posters will help to attract attention to PreserVenice and help raise awareness about our cause. In addition, we feel that once we attract donors, we need to be able to keep them and incentivize them to donate again. We have made this donation process as positive as we can, including adding thank you emails to donors such as:

“Hello {Donor},

We appreciate your interest in our organization, and would like to formally thank you for donating to the PreserVenice cause. You can track the status of your piece at www.preser Venice.org and you will be notified when the piece has finally reached its goal. We are grateful for your contribution and want to thank you for being part of the push to preserve Venetian cultural heritage through the restoration of public artifacts.

Thank you,
The PreserVenice Team”

These attempts at outreach, from posters aimed at people on the street of Venice to connecting with our donor base, will help PreserVenice be recognized as a company that is not only reputable but also cares about the people who are involved in the cause.

7.3. Fundraising Through Merchandise

One idea that past PreserVenice teams suggested is merchandising in order to both fundraise and raise awareness. We were in contact with Kyle Miller - from the original 2007 PreserVenice team - who then shared with us various merchandise designs for us to then use, some of which are shown below. All these designs can be found in the official preservenice.org@gmail.com account Google Drive.

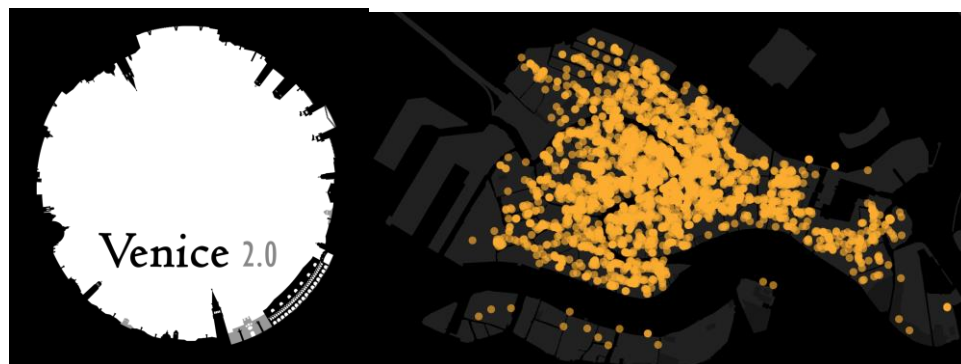


Figure 36 - Example Designs for PreserVenice Merchandise

These designs, and many others, we used to create a merchandise store containing a variety of products including T-shirts, posters, sweatshirts, mugs, stickers, phone cases, and the ability to make a myriad of others. When thinking about creating our store, we spent time researching different companies and what would fit PreserVenice best as a small start up company. We finally settled on using Zazzle which is a platform where anyone can make a merchandise store

with no overhead cost to the company. PreserVenice can use its designs to make any type of merchandise offered on Zazzle and will never have to pay Zazzle itself. At this time the store is live and anyone can buy our products, some of which can be seen in Figure 36 below.

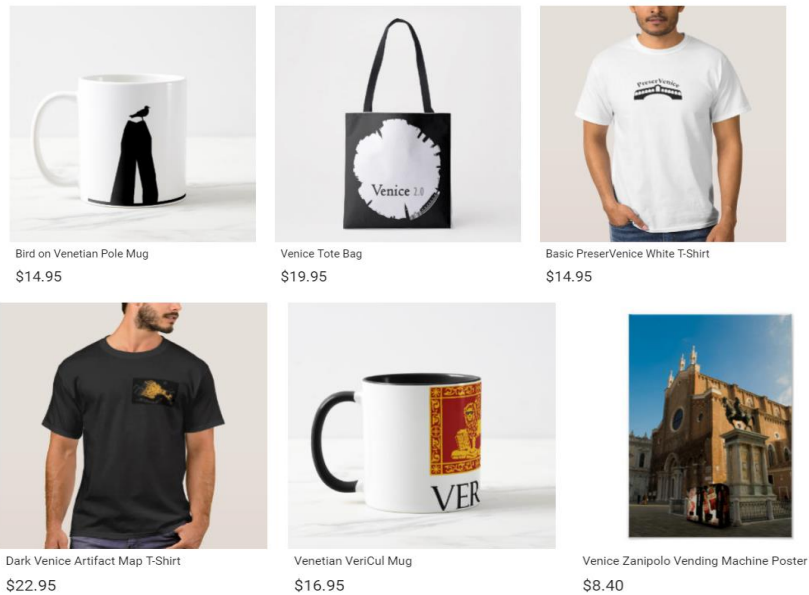


Figure 37 - Examples of PreserVenice Merchandise

When someone buys a piece from the PreserVenice store, Zazzle will set the base cost of the product, and then the company who designed the merchandise can mark it up a certain percentage for profit. With the current designs, they are only marked up by around €2, but the administrator of the account has the power to set the price however they best see fit. After the store starts bringing in profits, PreserVenice can connect their bank account to it and ‘cash out’ to make use of the funds. Our team believes that there is room here for growth, and with engaging, eye-catching designs, this could become another avenue for restoration funding. We suggest that these profits are put toward a general donation fund in order to help out whenever specific piece donations are short of their goal. Another idea is that money from the Zazzle store could be put toward a scaffolding fund so that PreserVenice can one day buy its own scaffolding equipment to save on costs indirectly. Overall, Zazzle is a good way to make money without too much difficulty, but in order for it to be truly successful a larger audience is needed.

7.4. PreserVenice Operations

One area that we felt was really lacking in PreserVenice is a centralized space for condensing all past work. There has been considerable work done for PreserVenice over the past decade, but it has been hard to find everything that was done and often the useful pieces are scattered about and hard to track down all aspects. As a result, one of the goals of our team is to create a space for all things PreserVenice. We created the preservenice.org@gmail.com Google Account. With a Gmail like this comes a Google Calendar, Google Photos, the email account, and most importantly Google Drive. Specifically this Drive we have organized such that everything has a proper place, and we have also shared our personal IQP folder with the account in order to have a wealth of information for future teams engaging with the PreserVenice project, and encourage future teams to do the same. Finally we added a document containing all the account information for PreserVenice including Instagram, Facebook, Gmail, and Zazzle logins so that this information is not lost. We hope that this will prove to be helpful for the future administration of PreserVenice.

7.4.1. Restoration Process

While developing a strong foundation for PreserVenice is important it is also important to look at what the restoration process will look like as it comes to fruition. Below is a visually appealing process flow, and in Appendix G contains a more explicit step-by-step of what the process will look like for both the company and the donors.



Figure 38 - Summarized Restoration Process Flow

With the significant combined work of past teams and ours, we believe that PreserVenice is ready to start this process and begin restoring pieces. This outlined process flow will give some direction to those who come after us who wish to use the tools created by WPI teams to aid in the restoration of public art.

7.4.2. Statutes and Bylaws

Coupled with the business infrastructure are the statutes and bylaws of PreserVenice. Our team has made some additions to the bylaws which can be found in Appendix C. Overall, these documents were standard bylaws for a fledgling company, but as the company grows and becomes more complex, these will need to be updated. Additionally, our team took a look at the PreserVenice statutes (which can be found in Italian in Appendix D), and spent time translating all 6 pages to an English version (located in Appendix E). These statutes are fairly in-depth and reference the Civil Code anywhere where the Statutes are lacking. These statutes discuss the formation of the company including the President, Vice President, Board of Administration, and Scientific Committee. That said, more will need to be added as the company grows and through trial and error realize that they need to change the statutes to fit the way the company runs. Overall, these documents have a coherent structure, with only minor changes needing to be made to the membership and yearly payments sections. Another area which will need significant discussion within PreserVenice administration is the status of the the company itself as to whether it wants to be considered an association, a non-profit organization, and even if it wants to designated within 501.c3 grouping or as a UNESCO private committee. These decisions will have to be made somewhat soon by the executives of PreserVenice, so that the company can create a bank account and bring their by-laws and statutes to a notary in order to become a legally legitimate organization.

7.4.3. Job Opportunities

One of the overarching objectives of the Venice Project Center is to create lasting and impactful jobs for young Venetians outside of the tourism industry. This is something which SerenDPT has already started doing and that PreserVenice can continue. While working on our project, our team had this objective in the forefront of our minds. Some of the jobs we think could be

created in order to keep PreserVenice running smoothly and efficiently are restorers, web developers, software developers, accountants, data integration and collection specialists, photographers, graphic designers, and a media consultant. All of these job opportunities are discussed more in depth in our Appendix K, where a short description of each job can be found. It will take time for PreserVenice to become large enough to provide all of these jobs but hiring a restorer, web developer, and manager/secretary would be a strong start

7.5. Recommendations

While the foundation for PreserVenice's online presence has been set, there is an endless amount of room for growth. In order for the Instagram to be effective, it needs to amass a much larger following and needs to find a way for tourists to find it. The greatest way which we envision this can be done is through a multitude of collaborations. To name a few places we think partnerships would go a long way for our global outreach are local businesses, travel agencies/companies, airports, and other social media accounts, to name a few. The most important thing to focus on is finding someone who already has an audience, and then turning their audience into your audience. Additionally, moving forward the social media needs to focus more on fundraising, as this is the ultimate goal of our online presence. Through experimenting with posts and stories on Instagram, and further developing the Facebook outreach, we can begin to actually raise funds through these efforts.

On the business front some suggestions were made above about specifics but more generally, PreserVenice really needs to hire at least one person to be the point person on PreserVenice and keep everything organized and be able to train others in the organization of the company. While more employees will be needed in the future, one is needed now in order to actually push this company into action. To do this we also suggest that the process of opening a bank account and bringing the bylaws and statutes to the notary happen earlier rather than later. Finally continuing to work with the Soprintendenza about getting tax cuts and working with UNESCO on the basis of private committees will also be something that is important in the near future.

8. Final Conclusion and Recommendations

With the work done by our team, PreserVenice is on its way to be officially established as a company. Through its crowdfunding model, PreserVenice will aim to attract small and large donations alike, enabling the company to ultimately accept a larger amount of money for its restoration efforts than a conventional preservation foundation. With a redesigned, functional website, a social media campaign starting to attract visitors, and behind the scenes work on the database and documentation, we believe that PreserVenice is ready to embark upon its mission and restore Venetian public artifacts.

Our team has some larger-scale recommendations. PreserVenice needs to appoint its president, so that they can keep track of all the work that has been done, and all that will need to be done. The president should be able to get others involved where needed as outlined in the statutes, such as with web development or actually restoring pieces. This person should make a bank account for PreserVenice, and meet with a notary to establish PreserVenice as a legal organization. Additionally, in the future there also may be more WPI projects to help with PreserVenice where needed, such as with upkeep of the website, data, and other aspects of the project which may arise.

We hope that our additions to the body of work completed by past Venice IQP teams for PreserVenice will help finalize an idea started 11 years ago, and have an ultimately beneficial impact on the city. Beyond adding to the restoration of the city and preserving cultural heritage for the future, PreserVenice will open job opportunities in both art restoration and software development industries, to help revitalize the Venetian economy in non-tourism sectors.

8.1. Recommendations

One of the main goals with establishing PreserVenice as a company is to create jobs for Venetians outside of the tourism industry to help revitalize the economy, and there are opportunities across a variety of fields. The most important role will be having trained restorers, artists, and architects employed by PreserVenice, though to start some of the work may be

contracted out to restoration companies in the city. If PreserVenice purchases scaffolding as well as an easy way to transport it through the city, the company would be able to cut costs significantly as well. There are opportunities for website and software development as well as database management, and plenty of creative opportunities for photographers or content creation to further spread publicity via social media and continue the social media presence which we established, or by advertising across Venice itself.

One of the remaining challenges for PreserVenice to pass is the creation of a bank account so the company can accept donations and pay for restorations, and the website is not officially secured with an SSL certificate. The paperwork is in place to establish PreserVenice as a functional company, though, so hopefully a bank account is coming in the near future. With that, the current plan is to connect the Swarmoola payment system created by SerenDPT as a way for PreserVenice to process payments. The API for Swarmoola did not exist at the time of this project, so we only could leave placeholder pages for the future. The website is also currently only available in English, and though Google Chrome has a built-in language translation feature, having an internal language tool to confirm that all aspects of the website are correctly translated would be beneficial. Additionally, there is a placeholder for the functionality to “like” or follow an artifact, which would be useful in letting users of the website track progress on artifacts they care about, as well as providing potential for more targeted marketing to users.

One change which we feel is necessary to improve the back-end performance of the website is condensing data tables and cleaning up fields and entries which are outdated. With improvements to the database, it may also become easier for integration with the CKData Input application so that regular users of the website can update data entries with new condition information if any pieces change.

8.2. Final Words

As our project comes to a close we believe that with our work and the decade of hard work done by teams before us that PreserVenice has all that it needs to succeed. We cannot wait to see how PreserVenice progresses even further in the future and finally is able to realize its mission of restoring and preserving public art.

9. Works Cited

- Bezek, J.A., Nichols, A.L., Roddy, C., Trojanowski, R.A. (2010). *PreserVenice: Preserving Venetian Public Art* (Undergraduate Interactive Qualifying Project No. E-project-011210-092903). Retrieved from Worcester Polytechnic Institute Electronic Projects Collection: <https://web.wpi.edu/Pubs/E-project/Available/E-project-011210-092903/>.
- Carrera, F. (2004). *City knowledge: An emergent information infrastructure for sustainable urban maintenance, management and planning* (Unpublished doctoral dissertation). Massachusetts Institute of Technology, Dept. of Urban Studies and Planning.
- Child, B. H., Mercouris, V. N., Richards, K., & Sadoyan, H. (2017). Crowdfunding Heritage Restoration in Venice with Arti.City (Undergraduate Interactive Qualifying Project No. E-project-12157-045501). Retrieved from Worcester Polytechnic Institute Electronic Projects Collection: <https://web.wpi.edu/Pubs/E-project/Available/E-project-12157-045501/>
- Design. (2018). Retrieved from <https://material.io/design/>
- Foundation Group. (1995). What is a 501(c)(3)? Retrieved September 20, 2018, from <https://www.501c3.org/what-is-a-501c3/>
- Kent, A.L., Kieselbach, R.L., Miller, K.H., Sottolano, R.D., Vessella, S.R. (2007). *PreserVenice: Preserving Venetian Public Art* (Undergraduate Interactive Qualifying Project No. E-project-122207-150125). Retrieved from Worcester Polytechnic Institute Electronic Projects Collection: <https://web.wpi.edu/Pubs/E-project/Available/E-project-122207-150125/>.
- MiBACT (2018, August 09). Home-Page Sito web del Ministero dei beni e delle attività culturali e del turismo. Retrieved from <http://www.beniculturali.it/mibac/export/MiBAC/index.html#&panel1-2>
- React. (2018). Retrieved from <https://reactjs.org/>
- Saci (2014, July 17). Italy passes the Art Bonus law as incentive to help fund restoration of

public cultural patrimony. Retrieved September 20, 2018, from <https://saci-art.com/2014/07/17/italy-passes-the-art-bonus-law-as-incentive-to-help-fund-restoration-of-public-cultural-patrimony/>

SaveVenice Incorporated. (2016). Dedicated to preserving the artistic heritage of Venice. Retrieved from <https://savevenice.org/>

The Venice Wikibook. (2008, February 03). Retrieved September 11, 2018, from <http://venice1point0.wikidot.com/venetian-public-art#toc16>

UNESCO World Heritage Centre. (1992). Venice and its Lagoon. Retrieved September 11, 2018, from <https://whc.unesco.org/en/list/394>

UNESCO World Heritage Centre. (n.d.). Venice and its Lagoon rest in fragile balance. Findings of new study on the World Heritage site. Retrieved from <https://whc.unesco.org/en/news/1213/>

Venice In Peril. (2018). Private Committees. Retrieved from <https://www.veniceinperil.org/links/private-committees-links>

VeniceTheFuture. (n.d.). Venice, Which Future? Retrieved from <http://www.venicethefuture.com/schede/uk/333?aliusid=333>

WPI. (2017). Venice Project Center. Retrieved from <http://veniceprojectcenter.org/>

Appendices

Appendix A

Ratings for different categories for the condition assessment of the pieces. These numbers play later into further equations regarding prioritization and cost estimation.

State of Conservation:

- Surface condition, defined as “corrosion, deposits, and discoloration.” 4 is severe and threatening; 3 is problems that would be threatening if worsened; 2 is minor; 1 is some evidence; 0 is no evidence.
- Damage coverage, defined as “percentage of object covered by damage.” 4 is 100%; 3 is 75%; 2 is 50%; 1 is 25%; and 0 is 0%. The ratings should be rounded up (a 15% would receive a 1) so that only those pieces in pristine condition receive a 0.
- Structural integrity, defined as “missing pieces or compromised structural integrity*59.” 4 is severe and pronounced; 3 is potentially severe if the condition worsens; 2 is moderate; 1 is minor; and 0 is no evidence.
- Readability, defined as “legibility of the design and/or inscription.” 4 is 100% illegible; 3 is 75% illegible; 2 is 50% illegible; 1 is 25% illegible; and 0 is 0% illegible. As with “damage coverage,” raters are encouraged to round up, ensuring only pristine pieces receive a 0.
- Cracking. 4 is structural cracking; 3 is deep surface cracks that may become structural; 2 is average surface cracks; 1 is minor surface cracks and/or scratches; 0 is no cracking.

Vulnerability:

- Risk of theft. 4 is small, easily detached, close to the ground or window*60; 3 is any two of those criteria; 2 is any one; 1 is low risk of theft; and 0 is reserved for objects whose structural function would make them immediately noticeable if stolen (wellheads, mascaroni, etc.)
- Exposure and accessibility to vandalism. 4 is at ground level, in a public area, with some “prestige” associated with vandalizing the object; 3 is any two of those criteria; 2 is any one; 1 is low risk of vandalism; 0 is completely inaccessible.

- Exposure to the elements. 4 is exposure to strong wind, direct sun, rain/drainage, and ocean spray; 3 is any three of those elements; 2 is any two; 1 is any one; and 0 is no exposure to the elements.
- Material used in construction. 4 is wood and/or metal; 3 is terracotta and/or stucco; 2 is non-Greek marbles and/or non-Istrian stone; 1 is Greek marble; 0 is Istrian stone. This rating is determined solely on whether the material is present, no matter the quantity.

Social and Historical Importance:

- Popularity/folklore, defined as “use and recognition” by a local population, whether past or present.” 4 is high; 3 is above-average; 2 is somewhat; 1 is rare; 0 is never.
- Visibility or location, defined as “visibility to passers-by and volume of pedestrian and vehicular traffic.” 4 is high; 3 is above-average; 2 is moderate; 1 is low; 0 is almost never seen by traffic.
- Historical association, defined as “importance to local (Venetian) history.” 4 is high; 3 is above-average; 2 is somewhat; 1 is slight; 0 is not at all significant to the story of the place where it is found.
- Informational content, defined as the “amount of biographical information, text, or examples of styles and techniques important to the history of art and architecture contained in the object.” 4 is full of such information; 3 has an above-average amount; 2 has some; 1 has little; 0 has no information contained in it.

Artistic Value and Uniqueness:

- Artistic importance, defined as “fame of the sculptor or artist.” 4 is a famous artist; 2 is an artist who can be identified; 0 is an unidentified artist. Not enough categories exist to warrant the entire zero-to-four scale.
- Monumentality, defined as “sheer size and influence on the surrounding landscape.” 4 is very significant; 3 is above-average; 2 is somewhat; 1 is minor; 0 is no influence.
- Crowdedness, defined as “percent coverage of carved figures, human or otherwise.” 4 has 100% coverage; 3 has 75%; 2 has 50%; 1 has 25%; 0 has no figures (text or geometric decorations only).
- Figurativeness, defined as the “type of figure depicted.” 4 is human features that are elaborate and life-like; 3 is animal features; 2 is plant figures; 1 is geometric figures; 0 is text only.

Emergency Criteria:

- Risk to public safety. 4 poses an extreme and immediate risk; 3 is heightened risk; 2 is a moderate risk; 1 is low-risk; 0 is no risk.
- Danger of loss of the object (excluding theft). 4 is in extreme danger of being lost; 3 is in significant danger; 2 is moderate danger; 1 is in little danger; 0 is in no danger. Loss may occur when an object is located in an area making it more susceptible to damage (construction zones, behind shutters, near pipes, etc.) Theft is addressed in the “vulnerability” section above.

Conservation Number:

- $CN = [(m + s)ws + cwc + gwg + iw]$ if $m > 2$ and $s > 2$
- $CN = sws + cwc + gwg + iw$ if $m < 2$ or $s < 2$
 - Where m = missing pieces (0-4); s = cracks (0-4); c = corrosion (0-4); g = grime (0-4); i = 1 if iron hook is present (0 if not); $w_s = 5$; $w_c = 3.5$; $w_g = 1.5$; $w_i = 30$

(Fitzgibbon et al., 2011)

Appendix B

Cost Estimate of Restoration

“This is done through use of a formula incorporating the restoration estimate (RE), scaffolding cost (SC), actual restoration cost(RC), architect fee (AF), and taxes (TX). The formula used is listed below.

- $RE = SC + RC + AF + TX$
- AF is fixed at the equivalent of one day of work (~\$887) for the analysis and documentation of the restoration needed.
- $SC = [(SB \times SH)Cs]wc + Ct$
 - Where SH =needed height; SB= fixed base perimeter (roughly 5.2 m); Cs= cost per square meter of scaffolding; wc= 2.5 if piece is on a canal, 1 otherwise; Ct= transportation of scaffolding (~\$345)
- $RC = (RCb + RL + RCs + RCc + RCg + IH) \times UC$
 - $RCb = (Awe)MR + RP$
 - Where RCb= basic cost; A= surface area of piece; MR= going rate of restoration per square meter for the material that the artifact is made of; we= expansion factor: 4.5 for statue, 2.5 for relief, otherwise 1; RP= fixed preparation cost to account for two half days needed to set up the restoration and to clean it up afterwards
 - $RL = (n/2)MH$ added if inscribed letters need to be restored
 - Where RL= cost to repair letters; MH = 1 man hour (~\$30); n= number of letters to be repaired
 - $RCs = SR + MF$ for $m > 2$ and $s > 2$
 - Where RCs= extraordinary costs; SR= structural repair (add ~\$172 for every 0.5 rating above 2 in the missing pieces or cracks categories, whichever is greater); MF= flat fee for a stone mason (~\$345)
 - $RCc = \{0.2[(c-2)/0.5]\}RCb$ for $c > 2$
 - Basic cost RCbis increased by 1/5 for each 0.5 rating above 2 [Corrosion]
 - $RCg = \{0.2[(g-2)/0.5]\}RCb$ for $g > 2$
 - Basic cost RCbis increased by 1/5 for each 0.5 rating above 2 [Grime]
 - $IH = 4(MH)i$

- Additional 4 man hours (1 MH = ~\$30) added to account for removal of iron hooks, if present ($i = 1$)
- $UC = 0.1(RCb + RL + RCs + RCc + RCg + IH)$
 - 10% “unforeseen cost” factor built into the estimate to cover unexpected costs”

(Fitzgibbon et. al, 2011)

Appendix C

BY-LAWS OF PreserVenice

ARTICLE I. - NAME The name of the Corporation shall be: PreserVenice and it is sometimes referred to in these By-Laws as the “Corporation.” The organization shall have a seal which shall be in the following form:



ARTICLE II. - PURPOSES

The purposes that the Corporation is formed are those set forth in its Articles of Organization, as they may from time to time be amended. Currently these include: • Restoring and conserving Venetian public art as it deems appropriate and in the public interest, and for enjoyment of present and future generations; • Educating the public with regard to the importance of public art; • Working with other organizations having similar purposes to assist and encourage restoration and conservation of public art.

ARTICLE III. - MEMBERS

1. Membership and Election: Any individual or organization interested in the work and purposes of the Corporation may become a member of the Corporation, subject only to compliance with the provisions of these By-Laws, any rules and regulations promulgated by the Board of Directors and payment of any dues established by the Board of Directors. Membership in the Corporation shall be available without regard to race, color, creed, religion, or national origin.

2. Annual Meeting: The annual meeting of the members shall be held on the first Thursday of October of each year at such place and time as shall have been fixed by the Board of Directors or the President and stated in the notice of the meeting. The purposes that the annual meeting is to be held, in addition to those prescribed by law, by the Articles of Organization or these By-Laws, may be specified by the Board of Directors or by the President. If an annual meeting is not held in accordance with the foregoing provisions, a special meeting may be held in place thereof with all the force and effect of an annual meeting. The Secretary shall cause to be communicated to every member in good standing in this organization a notice telling the time and place of such annual meeting at least ten calendar days prior to the scheduled date of the meeting.

3. Special Meeting: Special meetings of the members may be called by the President. Notices of such meeting shall be communicated to all members at least ten calendar days before the scheduled date of the special meeting. The call for each special meeting shall state the date, time, place, and purposes of the meeting, and by whom it was called. At the request of 25% of the members of the Board of Directors or 25% of the members of the organization, the President shall cause a special meeting to be called but such meeting shall be made in writing at least fourteen days before the requested scheduled date.

4. Place of Meeting: Regular monthly meetings of the members shall be held at the _____ in Venice, Italy unless a different place (within Italy) is fixed by the Board of Directors or by the President and stated in the notice of the meeting.

5. Notice of Meetings: Communication of every meeting, annual and special, of the members, stating the date, time, place and the purposes of the meeting to be held shall be given by the Secretary, or by an Assistant Secretary, if there is one, or by the person calling the meeting, at least ten calendar days before the meeting.

6. Quorum: The presence of not less than 10% of the members shall be required to constitute a quorum for the transaction of business at all meetings of the members. In the absence of a quorum, any meeting may be adjourned for a period of not more than fourteen calendar days from the date scheduled by these By-Laws and the Secretary shall cause a notice of this rescheduled meeting to be sent to all those members who were not present at the meeting

originally called. A quorum as herein before set forth shall be required at any adjourned and rescheduled meeting.

7. Action at Meetings: At all meetings, except for the election of officers and directors, all votes shall be by voice. For election of officers, ballots shall be provided and there shall not appear any place on such ballot that might tend to indicate the person who cast such ballot. At any regular or special meeting, if a majority so requires, any question may be voted upon in the manner and style provided for election of officers and directors. At all votes by ballot the chairman of such meeting shall, prior to the commencement of balloting, appoint a committee of three who shall act as "Inspectors of Election" and who shall, at the conclusion of such balloting, certify in writing to the Chairman the results and the certified copy shall be physically affixed in the minute book to the minutes of that meeting. No inspector of election shall be a candidate for office or shall be personally interested in the question voted upon

ARTICLE IV. - ORDER OF BUSINESS

1. Roll Call.
2. Reading of the Minutes of the preceding meeting.
3. Reports of Committees.
4. Reports of Officers.
5. Old and Unfinished Business.
6. New Business.
7. Adjournments.

ARTICLE V. - THE BOARD OF DIRECTORS

The business of this organization shall be managed by a Board of Directors consisting of seven members, together with the four officers of this organization. At least two of the directors elected shall be a resident of the Town of Spencer and another two residents of the Town of Leicester.

The directors to be chosen for the ensuing year shall be chosen at the annual meeting of this organization in the same manner and style as the officers of this organization and they shall serve for a term of one year. The Board of Directors shall have the control and management of the affairs and business of this organization. Such Board of Directors shall only act in the name

of the organization when it shall be regularly convened by its chairman after due notice to all the directors of such meeting. Fifty percent of the members of the Board of Directors shall constitute a quorum and the meetings of the Board of Directors shall be held monthly following the regular membership meetings. Each director shall have one vote and such voting may not be done by proxy. The Board of Directors may make such rules and regulations covering its meetings as it may in its discretion determine necessary. Vacancies in the Board of Directors shall be filled by a vote of the majority of the remaining members of the Board of Directors for the balance of the year. The President of the organization by virtue of his office shall be Chairman of the Board of Directors. The Board of Directors shall select from one of their members a secretary. A director may be removed when sufficient cause exists for such removal. The Board of Directors may entertain charges against any director. A director may be represented by counsel upon any removal hearing. The Board of Directors shall adopt such rules for this hearing as it may in its discretion consider necessary for the best interests of the organization.

ARTICLE VI. - OFFICERS

The initial officers of the organization shall be as follows: President Vice President Secretary Treasurer

The President shall: 1. preside at all membership meetings. 2. by virtue of his office be Chairman of the Board of Directors. 3. present at each annual meeting of the organization an annual report of the work of the organization. 4. appoint all committees, temporary or permanent. 5. see all books, reports and certificates required by law are properly kept or filed. 6. be one of the officers who may sign the checks or drafts of the organization. 7. have such powers as may be reasonably construed as belonging to the chief executive of any organization.

The Vice President shall in the event of the absence or inability of the President to exercise his office become acting president of the organization with all the rights, privileges and powers as if s/he had been the duly elected president.

The Secretary shall: 1. keep the minutes and records of the organization in appropriate books. 2. file any certificate required by any statute, federal or state. 3. give and serve all notices to members of this organization. 4. be the official custodian of the records and seal of this organization. 5. be one of the officers required to sign the checks and drafts of the organization.

6. present to the membership at any meetings any communication addressed to him/her as Secretary of the organization. 7. submit to the Board of Directors any communications which shall be addressed to him as Secretary of the organization. 8. attend to all correspondence of the organization and shall exercise all duties incident to the office of Secretary

The Treasurer shall: 1. have the care and custody of all monies belonging to the organization and shall be solely responsible for such monies or securities of the organization. 2. cause to be deposited in a regular business bank or trust company a sum not exceeding \$10,000.00 and the balance of the funds of the organization shall be deposited in a savings bank except that the Board of Directors may cause such funds to be invested in such investments as shall be legal for a non-profit corporation in the Republic of Italy. 3. must be one of the officers who shall sign checks or drafts of the organization. No special fund may be set aside that shall make it unnecessary for the Treasurer to sign the checks issued upon it. 4. render at stated periods as the Board of Directors shall determine a written account of the finances of the organization and such report shall be physically affixed to the minutes of the Board of Directors of such meeting. 5. exercise all duties incident to the office of Treasurer. Officers shall by virtue of their office be members of the Board of Directors. No officer shall for reason of his office be entitled to receive any salary or compensation, but nothing herein shall be construed to prevent an officer or director for receiving any compensation from the organization for duties other than as a director or officer.

ARTICLE VII. - SALARIES

The Board of Directors shall hire and fix the compensation of any and all employees which they in their discretion may determine to be necessary for the conduct of the business of the organization.

ARTICLE VIII. - COMMITTEES

All committees of this organization shall be appointed by the Board of Directors and their term of office shall be for a period of one year or less if sooner terminated by the action of the Board of Directors. The permanent committees shall be: Legal, Membership, Fundraising and Education.

ARTICLE IX. - DUES

The dues of this organization shall be fixed by the Board of Directors per annum and shall be payable by the September meeting.

ARTICLE X. - AMENDMENTS

These By-Laws may be altered, amended, repealed or added to by an affirmative two-thirds vote of the members present at any meeting for which notice under these By-Laws was given and at which a quorum is present.

Appendix D

STATUTO

Art. 1 - Denominazione e sede

E' costituita con sede legale in Venezia, _(indirizzo)_____, una Associazione denominata "PRESERVENICE".

L'Associazione è disciplinata dalle norme contenute nell'atto costitutivo e nel presente statuto.

Art. 2 - Finalità

L'Associazione è costituita per il perseguimento di uno scopo ideale comune fra gli Associati e caratterizzato, in via generale, dalla conservazione e valorizzazione della cultura materiale della città di Venezia, nonché della sua Laguna, attraverso la catalogazione e il restauro della collezione di artifatti godibili dal pubblico, disseminati nelle calli, campi, campielli e canali della città e delle isole.

Con il termine "Cultura Materiale" si vogliono configurare tutti gli oggetti artigianali o artistici, prodotti dalla cultura vernacolare veneziana, creati con qualsivoglia materiale, esposti o meno alla pubblica vista, anche se di proprietà privata.

In via esemplificativa e non esaustiva sono esempi di Cultura Materiale: le Statue, i Capitelli, i Mascaroni, i Pozzi, gli Stemmi, le Patere, le Formelle, le Croci, gli Altorilievi e i Bassorilievi, le Lapidi, i Portali, i Portabandiera, le Fontane, le Imbarcazioni Tradizionali e altro. Sono incluse nella definizione anche le Campane in quanto udibili dal pubblico.

L'Associazione opererà nell'ambito dell'intero bacino lagunare, inclusa la città di Chioggia, ed ovunque sussistano opere artistiche ed artigianali associate alla cultura materiale di Venezia.

Art. 3 - Attività

L'Associazione si propone di contribuire tangibilmente alla conservazione di qualsiasi oggetto materiale prodotto dalla cultura vernacolare della città di Venezia e della sua Laguna, promuovendo il restauro e la valorizzazione di tali opere, il corretto impiego dei fondi eventualmente ricevuti, indicando una priorità delle opere secondo l'effettiva ed oggettiva importanza e urgenza degli interventi conservativi.

Il perseguimento degli scopi di cui all'articolo che precede avverrà attraverso:

1. la catalogazione di tutti gli oggetti rientranti nella cultura materiale vernacolare della città di Venezia e della Laguna;
2. l'analisi dello stato di conservazione e del rilievo artistico di ogni oggetto per determinarne il livello di priorità;

3. l'avvio di iniziative dirette alla raccolta di fondi, pubblici e privati, indispensabili per i restauri;
4. la sensibilizzazione della cittadinanza locale, nazionale e internazionale, rispetto alla cultura materiale della città e della laguna;
5. la collaborazione con altri Istituti, Organizzazioni, Enti e Associazioni che perseguono scopi comuni a supporto della conservazione della cultura materiale della città e della Laguna.

Art. 4 - Modalità operative per il raggiungimento dello scopo associativo

Il conseguimento dello scopo dell'Associazione verrà costantemente perseguito attraverso l'esercizio delle attività indicate nell'articolo che precede e, in particolare, mediante le seguenti - indicative e non esaustive - modalità operative:

1. la creazione di banche dati informatizzate aggiornate sui vari tipi di Cultura Materiale della città e della laguna;
2. l'adozione di un supporto informatico geografico denominato "Geographical Information System" per la gestione dei dati raccolti sul territorio;
3. la promozione della partecipazione di studenti e docenti, locali e stranieri, alla ricerca storica e scientifica, all'analisi e lo studio di tale patrimonio artistico ed artigianale;
4. il trasferimento, all'interno dell'attuale realtà artistica ed artigianale veneziana, delle conoscenze e delle esperienze maturate all'estero in paesi e territori con elementi di similarità con Venezia, con la conseguente applicazione in loco delle soluzioni che appaiano di provata affidabilità ed efficacia;
5. la diffusione degli studi attraverso convegni, pubblicazioni, reti telematiche, mostre ed altri media.

Art. 5 - Esercizio attività commerciali

L'Associazione potrà gestire attività commerciali che abbiano carattere marginale e accessorio rispetto alle attività associative e ciò all'unico scopo di destinare gli utili eventualmente derivanti per il raggiungimento dei propri fini, nonché per giungere alla realizzazione immediata delle finalità associative.

L'Associazione potrà costituire società commerciali o acquisire partecipazioni su società già esistenti per esercitare indirettamente un'attività economica diretta al reperimento di mezzi finanziari e, in ogni caso, volta al raggiungimento dello scopo associativo.

Tutte le entrate, gli utili ed i dividendi percepiti nell'esercizio di attività imprenditoriali - dirette o indirette - saranno completamente devoluti al patrimonio dell'Associazione con esplicito divieto di distribuzione, anche parziale o marginale, sotto qualsiasi forma, agli associati.

Art. 6 - Fondo Comune

Il fondo comune dell'Associazione è costituito:

1. dai contributi versati dagli associati all'atto dell'ammissione e dai successivi contributi annuali dovuti dai medesimi nella misura che verrà stabilita per la prima volta dall'atto costitutivo e, successivamente, dall'Assemblea degli associati;
2. dagli utili e dai dividendi eventualmente derivanti dall'esercizio, diretto od indiretto delle attività economiche di cui all'art. 5 del presente statuto;
3. dai beni, mobili o immobili, acquistati, con le somme di cui ai numeri che precedono, dalla stessa Associazione;
4. da sovvenzioni, finanziamenti, contributi o conferimenti elargiti da Singoli Individui, Organizzazioni Nazionali e Internazionali, Enti Pubblici e Privati.

Art. 7 - Struttura organizzativa

Sono Organi dell'Associazione:

1. Presidente
2. Vice Presidente
3. Consiglio d'Amministrazione
4. Comitato Scientifico
5. Assemblea degli Associati

Art. 8 - Il Presidente

Il Presidente dell'Associazione viene nominato per la prima volta nell'atto costitutivo e resta in carica a tempo indeterminato fino alla rassegnazione delle proprie dimissioni. Successivamente, la nomina compete al Consiglio di Amministrazione, il quale dovrà esprimersi all'unanimità nel rispetto del parere vincolante del Comitato Scientifico.

Egli presiede l'Assemblea dei Soci, le sedute del Consiglio d'Amministrazione del quale è membro di diritto, nonché le sedute del Comitato Scientifico, del quale è parimenti membro di diritto.

E' il rappresentante legale a tutti gli effetti dell'Associazione, nei confronti dei terzi e in giudizio.

Il Presidente ha diritto al rimborso delle spese sostenute a seguito dell'esercizio dell'attività associativa. La misura di tale rimborso verrà determinata forfetariamente dall'Assemblea degli Associati in sede di approvazione del bilancio.

Art. 9 - Il Vice Presidente

Il Vice Presidente, viene nominato per il primo mandato dall'atto costitutivo e, successivamente, a maggioranza da tutti i membri facenti parte del Consiglio d'Amministrazione.

In caso di assenza od impedimento del Presidente lo sostituisce in tutte le sue funzioni assumendone i poteri e le attribuzioni e rappresentando l'Associazione anche nei rapporti esterni.

In caso di impedimento o assenza del Vice Presidente le funzioni di questo, con i relativi poteri ed attribuzioni, vengono esercitate dal Consigliere più anziano di età.

Art. 10 - Il Consiglio d'Amministrazione

Il Consiglio d'Amministrazione viene nominato per il primo mandato dall'atto costitutivo e, successivamente, dall'Assemblea degli Associati ed è costituito dal Presidente dell'Associazione, membro di diritto, e da quattro Consiglieri eletti dall'Assemblea degli Associati tra i propri membri.

Dura in carica cinque anni e i Consiglieri uscenti sono immediatamente rieleggibili.

Può includere anche Consiglieri Onorari che esprimono pareri non vincolanti sulle funzioni di cui all'Art. 11. Un eventuale dissenso su tali pareri dovrà essere adeguatamente motivato dai membri votanti del Consiglio di Amministrazione.

Art. 11 - Funzioni del Consiglio d'Amministrazione

Il Consiglio d'Amministrazione è titolare di tutte le attribuzioni e dei poteri necessari per il raggiungimento degli scopi dell'Associazione.

In particolare il Consiglio d'Amministrazione:

1. procede alla convocazione dell'Assemblea degli Associati e provvede all'attuazione e all'esecuzione delle sue delibere;
2. delibera sull'ammissione, sulla decadenza e sulla esclusione dei Soci;
3. approva la nomina dei consiglieri di amministrazione onorari proposti dall'assemblea o da membri dello stesso consiglio;
4. rappresenta, collettivamente e individualmente, l'Associazione nei rapporti con i terzi, con facoltà per ogni membro di agire in nome e per conto dell'Associazione medesima e ciò ai sensi dell'art. 38 del Codice Civile;
5. redige, anche avvalendosi di professionisti esterni, i bilanci consuntivi e preventivi dell'Associazione;
6. stipula le opportune convenzioni, gli accordi e le intese con gli Enti, Nazionali e Sovranazionali, che erogano, a favore dell'Associazione, finanziamenti, sovvenzioni e/o contributi;
7. controlla l'amministrazione dell'Associazione, vigila sull'osservanza della legge e delle norme

- contenute nell'atto costitutivo e nel presente statuto, provvede alla tenuta della contabilità;
8. individua le eventuali attività economiche il cui esercizio, per le loro peculiarità, favorirebbe il raggiungimento degli scopi e delle finalità dell'Associazione e, in questo senso, provvede a stipulare tutti gli accordi necessari per la costituzione o la partecipazione a società direttamente operanti sul mercato, ovvero stabilisce le modalità operative cui deve attenersi l'Associazione allorché intenda, in via diretta, gestire l'attività economica;
 9. controlla la consistenza del fondo comune vigilando sul regolare versamento nel medesimo di tutti gli utili derivanti dalle suddette attività economiche;
 10. stipula accordi di collaborazione con tecnici e professionisti la cui opera appaia indispensabile per il corretto svolgimento dell'attività associativa.
 11. riferisce all'Assemblea sulle proposte ed iniziative suggerite da quest'ultima ai sensi del n. 8 dell'art. 13.
 12. controlla la legittimità formale del regolamento interno del Comitato Scientifico.
 13. stipula i contratti di assicurazione che dovessero ritenersi indispensabili per garantire, entro i limiti stabiliti dalla legge, l'esenzione dei Consiglieri e del Presidente dalla responsabilità personale connessa all'esercizio dell'attività associativa.
 14. delibera l'istituzione di uffici e rappresentanze sia in Italia che all'estero.
 15. nomina a maggioranza il Vice Presidente ed il tesoriere tra i propri membri.
 16. nomina all'unanimità i membri del Comitato Scientifico.

Art. 12 - Riunioni del Consiglio d'Amministrazione

Il Consiglio d'Amministrazione è convocato dal Presidente in qualsiasi sede ogniqualvolta questi ne ravvisi l'opportunità.

Le decisioni di cui all'articolo 11, nonché qualsiasi altra decisione richiesta a maggioranza dal Consiglio di Amministrazione, devono in ogni caso essere adottate mediante convocazione del Consiglio di Amministrazione, il quale potrà tenersi anche mediante conferenza telematica.

Tutte le altre decisioni del Consiglio di Amministrazione possono essere adottate anche mediante consultazione scritta o sulla base del consenso espresso per iscritto. In tal caso, dai documenti sottoscritti dai consiglieri, devono risultare con chiarezza l'argomento oggetto della decisione ed il consenso alla stessa.

L'avviso di convocazione, contenente l'ordine del giorno, deve essere recapitato a ciascun Consigliere almeno tre giorni prima della data fissata con qualsiasi mezzo, anche telematico.

Ogni Consigliere può farsi rappresentare esclusivamente da un altro consigliere mediante delega scritta, inviata con ogni mezzo, anche telematico.

Per la validità delle deliberazioni del Consiglio d'Amministrazione è necessaria la presenza della maggioranza degli Amministratori in carica. Le deliberazioni sono adottate a maggioranza assoluta dei

presenti. In caso di parità prevale il voto del Presidente.

Le deliberazioni devono risultare da verbale sottoscritto dal Presidente e dal Consigliere facente funzioni di Segretario.

Ogni Consigliere ha diritto al rimborso delle spese sostenute a seguito dell'esercizio dell'attività associativa. La misura di tale rimborso verrà determinata forfetariamente dall'Assemblea degli Associati in sede di approvazione del bilancio.

Art. 13 - Il Comitato Scientifico

Il Comitato Scientifico è titolare unico del potere di stabilire le modalità di restauro dei singoli beni artistici e delle priorità degli interventi da effettuarsi.

Il Comitato Scientifico è competente, anche a posteriori, a certificare l'idoneità tecnica delle imprese e dei soggetti ai quali siano state commissionati interventi su opere artistiche e/o artigianali prodotte dalla cultura materiale vernacolare di Venezia.

Il Comitato Scientifico è organo autonomo dotato di potere decisionale e vincolante in ordine ad eventuali specifiche questioni tecniche ad esso devolute dal Consiglio d'Amministrazione o dall'Assemblea degli Associati.

Qualora lo ritenga necessario il Comitato può anche avvalersi dell'opera di esperti esterni all'Associazione.

Esso è composto dal Presidente dell'Associazione, membro di diritto, e da due membri scelti dal Consiglio di Amministrazione il quale può nominare anche membri esterni all'Associazione.

Tutte le decisioni del Comitato Scientifico possono essere adottate anche mediante consultazione scritta o sulla base del consenso espresso per iscritto. In tal caso, dai documenti sottoscritti dai consiglieri, devono risultare con chiarezza l'argomento oggetto della decisione ed il consenso alla stessa.

L'avviso di convocazione, contenente l'ordine del giorno, deve essere recapitato a ciascun membro del Comitato almeno tre giorni prima della data fissata con qualsiasi mezzo, anche telematico.

Per la validità delle deliberazioni del Comitato Scientifico è necessaria la presenza della maggioranza dei membri in carica. Le deliberazioni sono adottate a maggioranza assoluta dei presenti. In caso di parità prevale il voto del Presidente.

Le deliberazioni devono risultare da verbale sottoscritto dal Presidente e dal membro facente funzioni di Segretario.

Ogni Membro del comitato Scientifico ha diritto al rimborso delle spese sostenute a seguito dell'esercizio dell'attività associativa. La misura di tale rimborso verrà determinata forfetariamente dall'Assemblea degli Associati in sede di approvazione del bilancio.

Art. 14 - L'Assemblea degli Associati

All'Assemblea partecipano tutti gli Associati che risultino in regola con il pagamento dei contributi di cui al n. 1 dell'art. 6 che precede.

L'Assemblea è presieduta dal Presidente dell'Associazione il quale provvede a nominare un Segretario verbalizzante scelto tra gli Associati presenti.

Le deliberazioni devono risultare da verbale sottoscritto dal Presidente e dal Segretario.

Ogni Associato ha diritto ad un voto e può farsi rappresentare, mediante delega scritta, trasmessa con qualsiasi mezzo anche telematico, da un altro Associato.

L'Assemblea delibera:

1. l'approvazione dei bilanci;
2. la nomina del Consiglio d'Amministrazione nelle forme previste dall'art. 10;
3. le modificazioni all'atto costitutivo e allo statuto dell'Associazione;
4. lo scioglimento e l'estinzione dell'Associazione e la devoluzione del fondo comune;
5. il rimborso spese forfetario spettante al Presidente ed ai membri del Consiglio d'Amministrazione e del Comitato Scientifico;
6. sugli atti proposti al suo esame dal Consiglio d'Amministrazione;
7. di proporre al Consiglio d'Amministrazione l'avvio di iniziative idonee al raggiungimento degli scopi sociali;
8. la misura del contributo associativo annuo a carico degli Associati.
9. Propone al Consiglio di Amministrazione il nominativo di Consiglieri Onorari.

Art. 15 - Convocazione dell'Assemblea

L'Assemblea degli Associati viene convocata dal Consiglio di Amministrazione ogni qualvolta questi ne ravvisi la necessità e, comunque, almeno una volta all'anno per l'approvazione dei bilanci consuntivi e preventivi.

L'Assemblea deve essere convocata quando ne è fatta motivata richiesta da almeno un quinto degli associati.

L'Assemblea può essere convocata in qualsiasi sede, purché in Italia, mediante avviso contenente l'indicazione del giorno, dell'ora e del luogo dell'adunanza, dell'elenco delle materie da trattare, nonché il giorno, l'ora ed il luogo della seconda convocazione.

L'avviso deve pervenire, con qualsiasi mezzo, anche telematico, al singolo associato almeno sette giorni prima della data fissata per l'Assemblea.

Le deliberazioni dell'Assemblea sono prese, in prima convocazione, a maggioranza di voti e con la presenza di almeno la metà degli Associati; in seconda convocazione la deliberazione adottata a maggioranza è valida qualunque sia il numero degli intervenuti.

Le deliberazioni sulla modifica dello statuto e dell'atto costitutivo, nonché quelle relative allo scioglimento e all'estinzione dell'Associazione e, infine, alla devoluzione del fondo comune, devono essere adottate con la presenza di almeno i tre quarti degli Associati e con il voto favorevole della maggioranza di essi e con il voto favorevole, all'unanimità, del Consiglio di Amministrazione.

Ai sensi dell'art. 21 del Codice Civile nelle deliberazioni di approvazione del bilancio e in quelle che riguardano la loro responsabilità, gli amministratori non hanno voto.

Art. 16 - Gli Associati

Il numero degli Associati è illimitato e l'appartenenza all'Associazione non dà diritto ad alcun utile e/o dividendo.

Per far parte dell'Associazione è necessario presentare domanda al Consiglio d'Amministrazione il quale deciderà insindacabilmente sull'ammissione.

Ogni Associato è obbligato al versamento all'atto di ammissione di un contributo il cui ammontare è stabilito dall'Assemblea degli Associati.

Ogni Associato è obbligato al versamento del contributo annuale d'associazione.

La qualità di Associato è intrasmissibile e il vincolo associativo termina esclusivamente per decesso, recesso, decadenza ed esclusione dell'Associato.

In ogni caso in cui cessi il vincolo associativo il singolo Associato non può ripetere i contributi versati all'Associazione né avere diritti sul fondo comune della medesima.

Ai sensi dell'art. 24, comma II° del Codice Civile l'Associato può sempre recedere dall'Associazione con effetto immediato a decorrere dalla comunicazione per iscritto fatta al Consiglio d'Amministrazione, anche per via telematica.

La decadenza dalla qualità di Associato si verifica laddove lo stesso non corrisponda, entro la data fissata dall'Assemblea, il contributo d'ammissione ovvero il contributo annuale associativo.

L'esclusione dell'Associato è deliberata dal Consiglio d'Amministrazione allorché sussistano gravi motivi. Ogni Associato ha diritto, se in regola con i versamenti dovuti, ad un voto in seno all'Assemblea dell'Associazione

Art. 17 - Estinzione dell'Associazione

L'Associazione si estingue, oltre che per il raggiungimento dello scopo, per le cause previste dall'art. 27 del Codice Civile.

Art. 18 - Rinvio a norme di legge

La durata dell'Associazione è a tempo indeterminato.

Per quanto non espressamente stabilito nell'atto costitutivo e nel presente statuto si rinvia alle norme di legge previste dall'Ordinamento Italiano. *Venezia, 1 Dicembre 2010.*

Appendix E

Statutes

Art. 1 - Name and headquarters

(To establish) with its legal headquarters in Venice, _(address)_____, an Association known as “*PRESERVENICE*”.

The association is governed by the rules contained (in this constituent act?) and in these statutes.

Art. 2 - Purpose

The association is governed for the pursuit to the common purpose between the involved and the marked(??), generally, by conservation and development of cultural material of the city of Venice, and of the Lagoon, through the cataloging and restoration of collection of artifacts enjoyed by the public, scattered in the streets, “fields” (campi), campielli, and canals of the city and of the islands.

With the term “cultural material” si vogliono to configure all the artisanal or artistic objects, products by Venetian vernacular culture, created with any material, exposed to the public view or not, even private property.

As an example e non esaustiva sono esempi of cultural material: le Statue, i Capitelli, i Mascaroni, i Pozzi, gli Stemmi, le Patere, le Formelle, le Croci, gli Altorilievi e i Bassorilievi, le Lapidi, i Portali, i Portabandiera, le Fontane, le Imbarcazioni Tradizionali and others. The bells are also included in the definition because they are audible to the public.

The association will operate as part of the whole basin of the lagoon, including the city di Chioggia, and everywhere there are works of art and craftsmanship associated with the cultural material of Venice.

Art. 3 - Activity

The association proposes to tangibly contribute to the conservation of any subject material produced by the cultural vernacular of the city of Venice and its lagoon, by promoting the restoration and the development of such works, the correct use of the funds received where appropriate, indicating first a priority of the works, second the effective and objective importance and urgency of the conservation measures.

The pursuit of the purpose of which the preceding article will be through:

1. The cataloguing of all the objects falling within the vernacular cultural material of the city of Venice and of the Lagoon;
2. The analysis of the state of conservation and of the artistic emphasis of every object through

determining the level of priority;

3. The start of direct initiatives toward the collection of funds, public and private, essential for the restorations;
4. The awareness of citizens locally, nationally, and internationally, with respect to the cultural material of the city;
5. The collaboration with other institutes, organizations, entities and institutions which pursue the common goal by support of the conservation of cultural material of the city and of the lagoon.

Art. 4 - Operational methods for the achievement of the goal of the association

The achievement of the goal of the association will be constantly pursuing through operation of the activity indicated in the preceding article and, in particular, through the following - indicative and not comprehensive - operational methods:

1. The creation of the updated informational data banks on the different types of cultural material of the city and of the lagoon;
2. The adoption of a geographical information support called "Geographical Information System" for the management of the data collection across the city;
3. The promotion of participation of students and teachers, local and otherwise, to research historically and scientifically, to analyze and to study the artistic and artisanal heritage;
4. The transfer, within the current Venetian artistic and artisanal status quo, of the knowledge and of the experience gained abroad in countries and territories with similar conditions to Venice, with the resultant application in places of the solutions that appear proven reliable and efficient;
5. The spreading of the study through conferences, publications, the internet, exhibitions, and other forms of media.

Art. 5 - Financial operations

The association will manage commercial activities which will have marginal nature and subsidiary to the activities of the association and this for the sole purpose of allocating the earnings where appropriate arising from achieving its end goal, and through reaching to achieve the immediate financial associations (???)

The association may be a commercial company or acquire shareholdings on existing corporations through exercising indirectly an economic action direct to obtaining financial resourced and, in any case, time to achieve the goal of the association.

All revenue, the earnings and the dividends received in practice of business activities- direct or indirect - will be completely vested to the heritage of the association with explicit prohibition of distribution, and partial or marginal, under any shape, to the associated.

Art. 6 - Mutual Fund

The mutual fund of The association consists of:

1. Of the contributions paid (made) by the associates at the time of admission and the subsequent annual contributions due by them in so far which will be first established in the constituent act and subsequently by the Assembly of associates;
2. From profits and the dividends where applicable stemming from the operation (financial year), direct or indirect of economic activity referred to in article 5 of these statutes;
3. Of property/assets, moveable or immovable, acquired, with the sums referred to in the previous numbers, of the same association;
4. By subsidies(grants), funding(finance), contributions or conferimenti (conferral?) dished out by individuals, national and international organizations, public and private entities.

Art. 7 - Structural Organization

Our Institutions The association:

1. President
2. Vice President
3. Board of Administration
4. Scientific Committee
5. Assembly of Associates

Art. 8 - The President

The president of the association shall be nominated for the first time in the constituent act and shall remain in office indefinitely until the resignation of their own notice. Subsequently, the appointment is up to the Administrative Board, which must vote unanimously in accordance with the (enforceable) opinion of the Scientific Committee. He who presides over the Assembly of partners (shareholders), the meetings of the Administrative Board del quale è membro di diritto (who is a member of by law), as well as meeting of the Scientific Committee, of which was equally (similarly) membro di diritto (member). Its legal representative to the effect of The association, with regard to third parties and the courts.

The President shall be entitled to reimbursement of the costs incurred following the financial year of the business. The measure of the reimbursement will be determined at a flat-rate by the assembly of partners (shareholders) when determining the budget.

Art. 9 - The Vice President

The Vice President, shall be appointed for the first mandate in the constituent act and, subsequently, by a majority of the members which are on the Administrative Board. In the absence of or inability to act of the President is replaced in all of his functions/duties and the powers and responsibilities representing The association and its external relations/matters.

In case of the inability to attend or absence of the Vice President the duties of this, with the relative powers and responsibilities, shall be exercised by the oldest/most senior councilman.

Art. 10 - The Board of Administration

The Board of Administration shall be appointed for the first mandate in the constituent act and, subsequently, by the assembly of partners/shareholders and shall consist of the President of The association, membro di diritto (ex-officio member), and four advisors/councilmen elected by the assembly of partners/shareholders between their own members.

Dura (?) sits for five years and the councilmen(advisors) uscenti sono immediatamente rieleggibili (leave immediately).

One may also include honorary councilmen who express non binding opinions regarding functions referred to in 'Art. 11. A possible opposition about these opinions shall be adequately reasoned(addressed) by the voting members of the Board of Administration.

Art. 11 - Functions of the Board of Administration

The Board of Administration is the holder of all the powers/responsibilities and the power necessary to the achievement for the purpose of The association.

In particular the Board of Administration:

1. Shall be convened of the Assembly of associates and shall ensure the implementation of its deliberation;
2. Deliberation/Decision about admitting, sulla decadenza and on the expulsion of members;
3. Approving the appointment of advisors/councilmen of administration/trustees and of charges put forward by the Assembly by members of the same council/board;
4. Representing, collectively and individually, The association in their relations/dealings with third parties, the right for each/every member to act on behalf of The association itself as referred to in art. 38 of the Civil Code;
5. Shall establish/draw up, my making use of external professionals, budget statements and estimates for The association;
6. Entering into the necessary/appropriate agreements/contracts, agreements and arrangements with the entities, national and international, that provide, on behalf of The association,

- funding, grants, and contributions;
7. Controlling the administration of The association, monitors compliance with the law and the rules laid out in the constituent act and in this present statute, that provides for the keeping of records/accounting;
 8. individua le eventuali attività economiche il cui esercizio, per le loro peculiarità, favorirebbe il raggiungimento degli scopi e delle finalità delThe association e, in questo senso, provvede a stipulare all gli accordi necessari per la costituzione o la partecipazione a società direttamente operanti sul mercato, ovvero stabilisce le modalità operative cui deve attenersi The association allorché intenda, in via diretta, gestire l'attività economica;
 9. controlla la consistenza del fondo comune vigilando sul regolare versamento nel medesimo di all gli utili derivanti dalle suddette attività economiche;
 10. stipula accordi di collaborazione con tecnici e professionisti la cui opera appaia indispensabile per il corretto svolgimento dell'attività associativa.
 11. Reports to the Assembly about proposals and initiatives suggested da quest'ultima (by the latter?) as referred to in n. 8 dell'art. 13.
 12. Monitoring the legitimacy of the Scientific Committee's official rules of procedure.
 13. stipula i contratti di assicurazione che dovessero ritenersi indispensabili per garantire, entro i limiti stabiliti dalla legge, l'esenzione dei Consiglieri e del Presidente dalla responsabilità personale connessa all'esercizio dell'attività associativa.
 14. Deciding the setting up of an office and representations (representatives?) both in Italy and abroad.
 15. Appointment by majority of the Vice President and the treasurer among their members.
 16. Unanimous appointment of the members of the Scientific Committee.

Art. 12 - Meetings of the Administrative Board

The Administrative Board is convened by the President in whatever headquarters wherever there is the opportunity.

The decisions referred to in art.11, as well as any other decision requested by the majority of the Board of Administration, shall in any case be adopted/introduced through the convening of the Administrative Board, which will be able to take place including through electronic conferencing.

All other decisions of the Board of Administration possono may also be taken by consulting writing on the basis of express consent in writing. In that case, from the documents signed from the advisors/councilmen, must result with clarity the issue covered by the decision and agreement with itself.

The notice about convening will contain the order of business (agenda), must be delivered to each councilman/advisor at least three days prior to the date set by whatever means(in whatever form), including electronically.

Every counselor may be represented exclusively by another councilman/advisor by written delegation, submitted by whatever means, including electronically.

For the validity, the deliberations of the Board of Administration shall require the presence of the majority of directors (councilmen) in office. Deliberations shall be adopted by a majority of those present. In the event of a tie the vote of the President shall prevail.

The deliberations shall result in the report/minutes signed by the President and the councilman acting as a secretary.

Every councilman is entitled to reimbursement of expenditures incurred due to the activities of the business during the financial year. The extent of this reimbursement will be determined at a flat rate by the Assembly of associates when approving the budget.

Art. 13 - The Scientific Committee

The Scientific Committee is the sole holder of power to establish the conditions of restoring a single artistic piece and the priorities of the restorations to be carried out.

The Scientific Committee is responsible, *anche a posteriori*, to certify the technical suitability of businesses and of subjects/entities who have been commissioned (to preserve) the artistic e/o artisan works produced of the cultural (vernacular) material of Venice.

The Scientific Committee is an autonomous body equipped with decision making power enforceable in regard to any specific technical questions and itself devolved by the Administrative Board or the Assembly of Associates.

If deemed necessary the Committee may also make use of the work of external experts for The association.

It shall be composed of the President of The association, full members, and two members selected by the Administrative Board which can nominate/appoint members outside of The association.

All of the decisions of the Scientific Committee may be adopted/taken including through written consultation or on the basis of express consensus expressed in writing. In this case, from the documents signed by the councilmen, must result with clarity the issue covered by the decision and the consent to itself.

The notice convening (calling a meeting), which contains the agenda, shall be delivered to each member of the Committee at least three days prior to the date set by whatever means, including electronically.

For the validity, the deliberations of the Scientific Committee shall require the presence of the majority of directors (councilmen) in office. Deliberations shall be adopted by a majority of those present. In the event of a tie the vote of the President shall prevail.

The deliberations shall result in the report/minutes signed by the President and the councilman acting as a secretary.

Every member of the Scientific Committee is entitled to reimbursement of expenditures incurred due to the activities of the business during the financial year. The extent of this reimbursement will be

determined at a flat rate by the Assembly of associates when approving the budget.

Art. 14 - The Assembly of Associates

All'Assemblea partecipano all gli Associati che risultino in regola con il pagamento dei contributi di cui al n. 1 dell'art. 6 che precede.

L'Assemblea è presieduta dal Presidente of the association il quale provvede a nominare un Segretario verbalizzante scelto tra gli Associati presenti.

Le deliberazioni devono risultare da verbale sottoscritto dal Presidente e dal Segretario.

Ogni Associato ha diritto ad un voto e può farsi rappresentare, mediante delega scritta, trasmessa con qualsiasi mezzo anche telematico, da un altro Associato.

The Assembly shall act/decide on:

1. The approval of the budget;
2. The appointment of the Administrative Board in the form set out in art. 10;
3. The modification of the articles of association and the statutes of The association;
4. The disbanding and the termination of The association and the devolution of the joint/mutual fund;
5. Reimburse flat-rate expenditures (expenditures at a flat-rate?) due to the President and to the members of the Administrative Board and of the Scientific Committee;
6. sugli atti proposti al suo esame dal Consiglio d'Amministrazione;
7. di proporre al Consiglio d'Amministrazione l'avvio di iniziative idonee al raggiungimento degli scopi sociali;
8. la misura del contributo associativo annuo a carico degli Associati.
9. Propone al Consiglio di Amministrazione il nominativo di Consiglieri Onorari.

Art. 15 - Convening of the Assembly

The Assembly of associates shall be convened by (summoned by) the Administrative Board considers it necessary and, comunque (in any case), at least once a year for the approval of the budget reports and estimates.

The Assembly shall be convened when a request is made of at least one fifth of associates.

The Assembly shall be convened in any headquarters, purché in Italia, via a notice containing the statement of the day, with the time and place of the gathering, a list of subjects to be addressed, as well as on the date, the time and place of repeat meetings.

The notice shall be received, by any means, including electronically, to the individual at least seven days prior to the date set out by the Assembly.

Deliberations of the Assembly shall be taken, in the first convening, by a majority of votes and and in the

presence by at least half of the associates; in repeat meetings the deliberation adopted by a majority is valid whatever the number degli intervenuti (of speakers).

The deliberations on the amendment of the Statute and of the articles of association, including those relating to the dismissal and to the extinction of The association and, finally, the devolution of the mutual/joint fund, must be taken in the presence of at least three quarters of the associates by a favorable vote of the majority of them, and by voting in favor, unanimously, by the Administrative Board.

As referred to in article 21 of the Civil Code in our deliberations to approve the budget, and in those that affect their responsibilities, administrators have no vote.

Art. 16 - Associates

The number of associates shall not be limited and membership to The association shall not give rise to any profits. To be part of the association it is necessary to submit an application to the Administrative Board who will make the decision about admission. Every associate is obligated to payment upon admission of a contribution of the amount of which is established by the assembly of associates. Every associate is required to pay an annual contribution. The quality of the associates è intrasmissibile (is inalienable??) e il vincolo (the bond of?) association terminates exclusively with death, withdrawal/termination, revocation/disqualification, and exclusion of the Association. In any case (However), that they il vincolo (constraint) associativo the individual associate may not repeat the contribution paid (the annual contributions) to The association nor have rights to share funds of the same. As defined by art. 24, subparagraph II of the Civil Code the associate may always withdraw from the association effective immediately in effect after notification in writing made to the board of administration, including electronically. The revocation of Associates occurs wherever the same does not correspond, by the time set by the Assembly, the contribution of admission which is the annual contribution of the association. The removal of the associate is decided by the Administrative Board where there is serious grounds (reasons). Every associate is entitled, if in compliance with the payment due, such a vote within the assembly of the association.

Art. 17 - Terminating The association

The association shall cease, other than for the achievement of the objective, for the cause laid out in art. 27 of the Civil Code.

Art. 18 - Reference to legal regulations

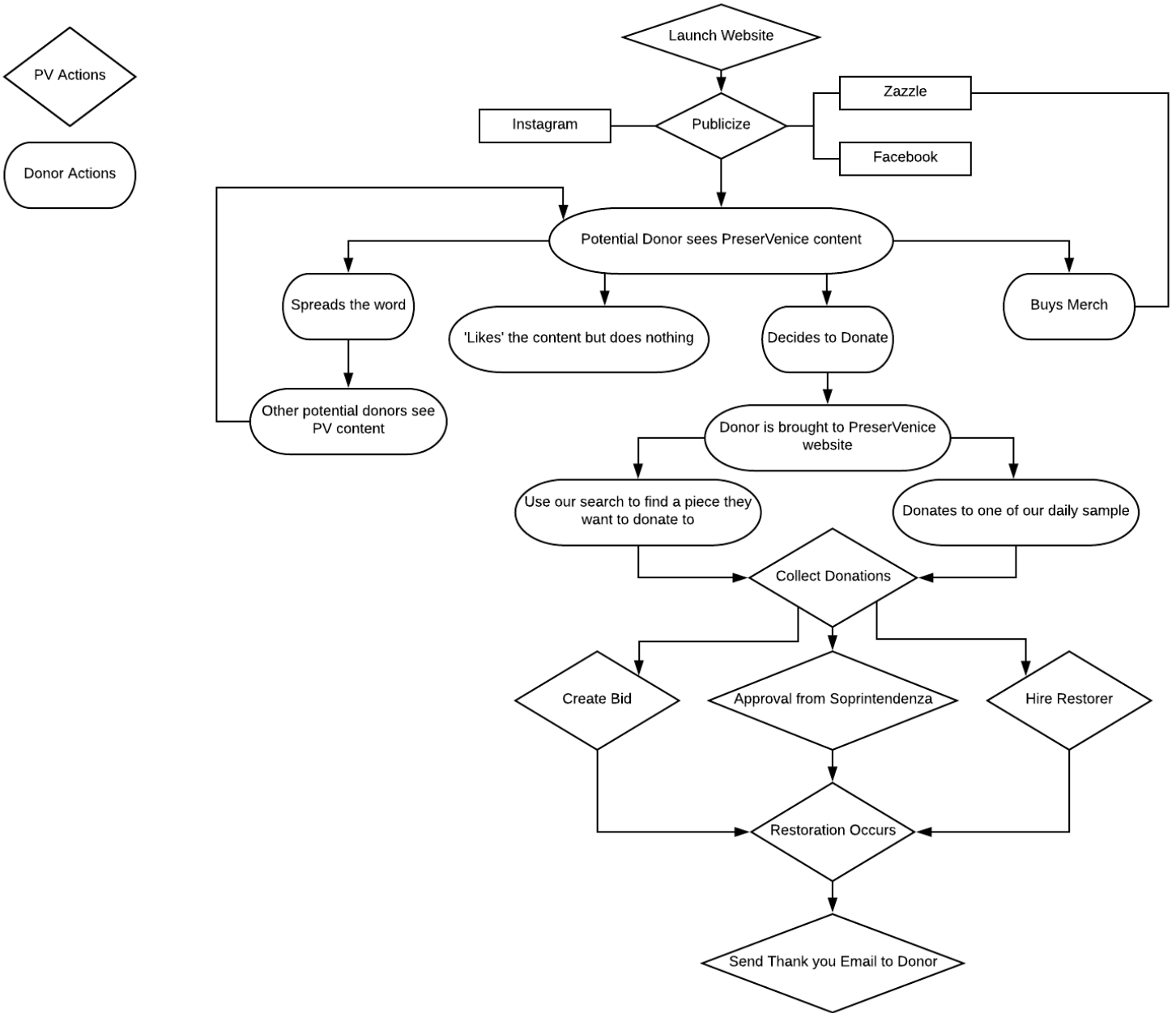
The term/duration of The association is open-ended. Although not explicitly determined in the articles of incorporation and in these statutes please refer to the rules of the law set out by the Italian Government.

Appendix F

The newly-collected inscription data can currently be found in the “new-inscriptions.json” file in the “pv-sample-server” Github repository. This data is structured as it should be in the CKData app. All of the data should be the same as it is in CKData, with the exception of the ck_id field. Our data conversion script, found in the “data-converter” Github repository generates random ck_ids as UUIDs.

At present, when the server loads the inscriptions group, it loads the data from the CKData app, and then reads the “new-inscriptions.json” file and yields its contents.

Appendix G



Appendix H

The easiest way to convert the website to a single-page app would be to change a single line in the “App.js” file:

```
import { BrowserRouter as Router, /* ... */ } from 'react-router-dom';
```

To the following:

```
import { HashRouter as Router, /* ... */ } from 'react-router-dom';
```

The effect of this would be to change the way that the website handles URL routing. In its current state, the web server serves all content in the “static” directory statically, and other URLs are redirected to “index.html.” The index file loads the website’s source code which reads the route and renders the appropriate page. Since we are using a `BrowserRouter` right now, URLs are expected to be in the form “domain/page.” Changing it from a `BrowserRouter` to a `HashRouter` changes it to be in the form “domain/#/page.” While this may ultimately look odd, it prevents the browser from reloading the website any time part of the route after the “#” is changed.

This could result in more responsive load times when switching between pages on the website, though we ultimately do not know if it is the right choice to make.

Appendix I

Currently, the website is built using Webpack 4. Webpack 4's default solution to minifying code involves the use of Uglify, which does not currently work with certain more modern JavaScript features, in this case async generators. The configuration for this is in the "webpack.config.js" file, in particular the following section:

```
optimization: {  
  minimize: false  
}
```

If, in the future, this error is fixed, `minimize` may simply be set to `true`, and the size of the website's exported code will decrease dramatically.

Appendix J

The Material UI library provides a number of tools to aid in creating a mobile-friendly experience. As an example, there is a `Hidden` component. This component functions off of a set of breakpoints, the exact values of which may be specified in the Material UI theme being used. Code for the theme may be found in the “`theme.js`” file. A `Hidden` component may specify in its props that it will render its contents if the breakpoint is above, below, or exactly equal to the specified breakpoint. As an example, the following code will render its children if the breakpoint is at least “`sm`”:

```
<Hidden smUp>  
  Child component  
</Hidden>
```

This in turn can be used to control what components are rendered relative to the user’s screen size. For example, it could be used to display a compact component to users on mobile devices, and a more detailed component to users on larger displays. Additional information regarding this tool can be found on [this site](#).

In addition to these more fine-grain controls, we would also recommend changing the filter drawer in the “`FilterDrawer.js`” file to render as a non-permanent drawer when on mobile, being hidden by default, and allowing the user to click a button on the navigation bar to slide it open. Additional information on Material UI’s drawer variants and how to use them can be found at [the demo page](#) and [the API reference](#).

Appendix K

Web Developer:

The Web Developer would continue to update the website making sure it stays relevant through the years. They would be integrating a payment system, making it easier for people to donate, adding social media connection, and adding more features for donors to get more information about the pieces. While one web developer with enough time would be sufficient, there is definitely room for a team of two and maybe even more as the company grows. They would need programming experience specifically experience working with HTML, Javascript, Node, React, Firebase, Relational Databases, CSS, and other basic programming skills as well as coding creativity.

Restorer:

The main goal of PreserVenice is to actually restore and preserve these pieces of endangered public art. With this PreserVenice will need to hire experienced restorers who know the rules and regulations surrounding restoring art and have the equipment necessary. Initially PreserVenice will be putting out bids and hiring local restorers, but with growth to the company it would make sense for the company to hire in-house restorations experts to streamline the process. With even more growth, there has been some talk about opening a restoration school so that restorations skills are passed down to the next generation of art restorers.

Accountant:

PreserVenice will be handling a large amount of money across various restoration projects. We not only have to receive donations, but also have to allocate this money to specific restoration projects. This money would go toward paying employees, paying restorers, buying scaffolding, getting materials, and other business expenses. With all the money coming in and out, an accountant specifically for PreserVenice will be of the utmost importance.

Data Collection and Integration Specialist:

With 30 years of VPC data to pull from PreserVenice builds off of the data collection and integration of past groups. Though a considerable amount of data has been collected, there is always more to be cataloged. Someone, hopefully with good directional skills, strong photography skills, and an attention to detail would be able to continue cataloging. Additionally, this person could work with integrating new data with old data. For example, much of the old data is missing important fields and will need to be fixed. Additionally, the data structures do not currently match up completely, and work will need to be done to properly set

all database tables. As such, this person should also have some database experience to help keep continuity through all the data sets.

Media Consultant:

One area where PreserVenice has a lot of room to grow is over social media. An Instagram and a Facebook page have been created, but accounts like these need constant attention and upkeep. A good social media consultant would be able to grow these accounts and attract a sizeable number of donors. If done correctly, the consultant, with the accounts and merchandise store, will be able to spread the word of PreserVenice to tourists and locals alike.