VADIS VR 3D VIRTUAL TOURS

2022 Pricing Options

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1.0 Executive Summary & Sample Tour

VADIS VR uses state-of-the-art 3D laser scanning technologies to create virtual reality educational tours or major cultural, artistic, and historic sites. We combine a visually immersive walk-through of the site with embedded educational content. This content consists of interactive points of interest that explain the space and the objects it houses. These tour tags can include textual content, music, high-resolution zoomable images, video, multilingual audio narration, 3D models, digitized books, links to scholarly articles, etc. Tours can be viewed online or offline via computer, touch screen, VR headset, projection, or smartphone. They include a highlights reel, exterior 360-degree photos, and allow for guided and individual exploration. VADIS VR will provide site caretakers with ceiling and floor plans, 3D mesh, and colorized point cloud that can all be saved offline to preserve structural data important for any future restorations.

Beyond this technical expertise, VADIS VR founder Amy Giuliano brings her academic background in Art History (Yale University) and Theology (Angelicum, Rome) to bear in creating content for these virtual tours. VADIS VR has created virtual tours of sites from the following periods: Early Christian, Byzantine, Carolingian/Early Medieval, Gothic, Renaissance, Baroque, Rococo, and Modern. See vadisvr.com for virtual tour samples, like this basilica in Rome, Italy:

https://www.vadisvr.com/moreau

Virtual reality technologies provide unprecedented access to cultural heritage sites for students and researchers. Furthermore, the use of virtual reality technologies in an exhibition space on-site provides an innovative, interactive, and enhanced learning experience for in-person visitors. Additionally, VR laser scanning technologies record and preserve the site's structure and precise 3D measurements in a digital format.

2.0 Product Details and Pricing Options

2.1 Product Details

• **Virtual reality tour**: A 3D virtual tour of the site can be embedded in a website or social media outlet, enabling unprecedented worldwide access to the building and providing benefits for educators, students, and cultural heritage preservationists. The tour will include a highlights reel, 360-degree exterior photos, and allow for guided or individual exploration. If desired, the tour will include interactive points of interest that explain the space and the objects it houses. These tour tags could include audio narration, videos, 3D models of sculptures and other 3D objects (see this example from Yale's Sterling Library:

https://sketchfab.com/models/85369af929954210b063044a1b193f96), digitized books, textual explanations, links to scholarly articles, music, aerial drone photography and videography, etc. VADIS VR would also provide files of the tour for long-term offline storage: OBJ file of the 3D mesh (.obj), colorized point cloud, reflected ceiling plan image (.jpg and .pdf), high-resolution floor plan image (.jpg and .pdf), and a short and

long introduction video (13 and 9 seconds, respectively, .mp4). Tours can stored and viewed offline on iOS devices (iPhone, iPad, and iPod touch). These files preserve a digital record of the structure, including 3D laser measurements within 1 millimeter of accuracy.

2.2 Pricing Options

Total cost is based upon the following metrics:

• .12 cents per square foot for 3D laser scanning and photography, including exterior 360-degree architectural photography

• \$40 per hour for programming and embedding content

• 10% of total project cost (excluding travel expenses and add-ons) for 10-year online cloud storage - with option to renew - and 5-year on-call technical support

• Travel expenses

Optional Add-ons:

- \$200 per hour for aerial drone photography and/or videography
- \$320 for one-day setup of on-site exhibition equipment

Package Deal:

• A discounted package deal can be negotiated if 1) VADIS VR is commissioned to complete more than one site, or 2) The site is over 10,000 square feet.

3.0 Process, Qualifications & Benefits

3.1 Process

Phase 1: 3D Laser Scanning, Photography, Aerial Drone Photography

Time needed to complete: 1 day per site without drone photography; 2 days on-site with drone.

Activities: I will scan the site (all levels), capture 360-degree outside shots from the ground, and complete aerial drone photography if desired. I may need to arrange to come in on a "slow" day or when the site is closed, as people walking through scans slows the process significantly. If items that will be featured in tour tags are chosen ahead of time, I will also take photos during these days for any photogrammetry or high-resolution images needed.

Phase 2: Programming & editing the tour

Time needed to complete: 5 business days

Activities: I will upload the tour to my computer, program it, and edit scans to prepare it for public viewing. This work includes creating a highlights reel that contains 360-degree exterior photos, all floors listed, and highlights of the collection. I will program in the option to play the highlights reel for a guided tour, and the option to show or hide the highlights reel.

Phase 3: Embedding Content

Time needed to complete: Timing depends on how much content will be added and whether the content is provided by the site or must be researched or written by me.

Regular tour tags include text, video, music, links to websites or articles, and any file or item that is provided by the site. 10 regular tags take 1 business day to embed. Premium tags include 3D models (photogrammetry), high-resolution images of art/artifacts I've photographed with either my camera or an aerial drone, audio narration, and any tour tags that I've had to research and write up myself. 1 premium tag takes 1 business day to complete and embed.

Activities: I will add interactive educational content based upon the needs/desires of the tour commissioner (i.e. text, high-res images, video, audio narration, 3D models, music). I will program in the option for viewers to show or hide tour tags.

Phase 4: Delivery of tour/setup

Time needed to complete: Embedding the tour in your website and/or social media will be a simple and rapid process for your webmaster involving a copy/paste of the iframe embedding code I will provide. I will be on-call for help. Sending files is also a rapid electronic process for me. In-person setup of the exhibition space, if desired, will require one day on-site.

Activities: Online - I will provide a link and an embedding code to your webmaster to embed the tour within the website, social media, etc. The same code is used to embed the tour on as many online platforms as needed. I will send the following files for offline storage via Dropbox: reflected ceiling plan image (.jpg and .pdf), high resolution floor plan image (.jpg and .pdf), OBJ file of the 3D mesh (.obj), and a short and long introduction video of the virtual tour (13 and 9 seconds, respectively, .mp4). Once delivered, the site has 10-year online cloud storage (with option to renew) and 5-year on-call technical support.

In-person exhibition – If desired, I will also provide in-person help setting up a display of the tour via touch-screen monitor, projector, or VR headset. The customer provides the equipment, but I am available to offer suggestions as to which equipment might work best for the desired result. To view the tour offline, I will download 3D Showcase for iOS onto the exhibition monitor.

3.2 Qualifications

VADIS VR was founded by Amy Giuliano, a recent Yale graduate trained in virtual reality technologies at Yale's Center for Collaborative Arts & Media and credentialed in Religion & the Visual Arts at Yale's Institute of Sacred Music & Divinity School. VADIS VR was founded thanks to the generosity of Yale's TSAI Center for Innovative Thinking, and was awarded the TSAI innovation prize in 2018.

3.3 Benefits

Creating virtual tours of religious and cultural heritage sites will:

• Provide students and scholars from around the world with unprecedented access to these historic sites and their collections, which they may otherwise never see;

- Generate interest in visiting in-person;
- Record and preserve the site's landmark structure in a digital format;

• Use bleeding-edge technology to provide a high-resolution, zoomable presentation that is both visually stunning and easily navigable;

• Provide a sense of context, scale, and size that 2D images cannot provide;

• Allow for engaging exploration of all spaces and angles that passive video viewing cannot provide;

• Foster interactive learning through embedded educational content;

• Showcase the highlights of the site's collection through embedded 3D models, digitized rare books, audio narration, written explanations, videos, etc.;

- Open an avenue for remote education and research of the collections;
- Appeal to a young age demographic and visual learners.