

## Reviews

Veronica Riavis

### **La Chiesa di Sant'Ignazio a Gorizia tra architettura e pittura.**

#### **Analisi geometrica e restituzioni per la rappresentazione tattile**

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Many important museums are now looking carefully at the technologies of Virtual Reality (VR) and Augmented Reality (AR) with the aim of offering their users appropriate cultural and educational insights. Despite the interest that the new digital strategies of architectural and art representation arouse in these contexts, their diffusion is not widespread yet. For now, AR and VR technologies remain almost exclusively aimed at an audience without disabilities, although digital world—by its very nature—could easily overcome (or at least bypass) the most common problems linked with physical limitations.

It can be considered as a real contradiction the fact that today there are national laws that oblige institutions to adapt the access to their buildings in order to allow everyone to reach specific spaces (for example wheelchair ramps and paths for the blind people), but no legislation has yet been promulgated to regulate a more democratic sharing of the contents that those 'accessible' spaces host.

Veronica Riavis' book, entitled *La Chiesa di Sant'Ignazio a Gorizia tra architettura e pittura. Analisi geometrica e restituzioni per la rappresentazione tattile* (*The Church of Sant'Ignazio in Gorizia between architecture and painting. Geometric analysis and restitutions for a tactile representation*) demonstrates that an alternative

and more inclusive use of VR and AR technologies is possible.

*Part I* deals with these issues, outlining the state of the art and focusing the attention on problems related to visual disabilities. From a table on p. 25, which shows the number of those who are blind in Italy, we can deduce that a non-negligible section of our population is precluded from enjoying almost all the architectural and artistic heritage. The author, after identifying some specific supports for blind people, identifies the technologies that could allow them to overcome their disability in the world of culture. The purpose of this section of the book is to outline a strategy of tactile representation of the arts through the education of the senses and creating mental images.

It is curious that the author chose a Jesuit church as a case study to experiment with 3D prototyping techniques that would allow blind people to perceive, with the touch, what the eyes do not allow them to see. Indeed, after the Council of Trent, it was precisely the Jesuit order that spreads the inclusive devotional renewal that the Counter-Reformation had triggered. Starting from the first half of the seventeenth century (the church of Sant'Ignazio in Gorizia was founded in 1626) new precise rules governed religious architecture and sacred painting. The church spaces were freed from the physical limits

previously provided between religious officers and faithful people, at the same time the stories that decorated the altars were also freed from the exegetical symbols to restore the moods of the characters, so that everyone could interpret and recognize the feelings. In essence, the Counter-Reformation made the religious experience more inclusive.

Among the major protagonists of the century, we find a Jesuit scientist and a Catholic artist, respectively François d'Aguilon and Pieter Paul Rubens. The collaboration between them was not limited to the publishing of an important treatise on Optics [d'Aguilon 1613], which in the following centuries will have great influence for the science of representation, but they probably collaborated in the construction of the Jesuit church in Antwerp and its decoration. This Counter-Reformation church was among the prototypes more imitated wherever the Jesuits established, and Veronica Riavis is aware about the importance to historically contextualize the church of St. Ignatius in Gorizia by looking at other buildings erected in further cities by the Jesuits.

In *Part II* of the book we find a study about religious architecture connected to the principles of the Counter-Reformation and, in particular, an insight on the Church of Jesus in Rome by Jacopo Barozzi da Vignola and Giacomo della Porta. In the same section of the book, we can find also a biography of Christoph Tausch, a pupil of Andrea Pozzo and author of the project of the church of Sant'Ignazio in Gorizia as well as of its main decoration. Veronica Riavis retraces the student's debts towards the master and analyzes Tausch's pictorial

works with special attention to his *quadrature*, widespread in the main cities of Eastern Europe.

Studying the treatises by Andrea Pozzo and Giulio Troili, Veronica Riavis proposes in *Part III* of her book the perspective restitution of the painted architecture, which illusory contains the stories of the main altar of the church of Sant'Ignazio in Gorizia. The virtual reconstruction does not only concern this precious decorative apparatus but it relates to the entire religious building. In both cases, the 3D models are built basing on appropriate digital surveys. The virtual reconstruction of the church of Sant'Ignazio in Gorizia and the illusory architecture of its main altar are followed by the description of the design and execution of the tactile prototypes that allow blind people to perceive an artwork through the sensitivity of their fingers and the 'eyes' of their mind.

The great merit of this book can be seen in the way in which the author has remained, in a certain sense, faithful to the inclusive spirit of the Counter-Reformation. Virtually modeling the church of St. Ignatius in Gorizia and the illusionistic architecture of its main altar, Veronica Riavis walks on an innovative path, that is not adequately explored yet in the field of VR and AR applications, helping everyone, blind people and not, in the knowledge of an artwork.

Digital tools, as well as traditional-analogical ones, are not in fact neutral means: scholars need to have a methodological and epistemic awareness before using them correctly. Richard White demonstrated that over time the representation of space had not only the purpose of generating images capable of con-

veying information, but also the role of a research tool [White 2010]. If the conclusion of the American scholar is correct for the traditional methods and techniques of representation, it is even more so for new technologies, which, thanks to the wide range of possibilities they offer, can be considered as a tool for integrating the study processes and learning; in conclusion, they are not just a simple viewers of contents.

Today, the support provided by technology allows the creation of 3D models that can be used for the analysis of artistic works as well as to set up simulations relating to the transformations of urban space and architecture. The advanced use of intelligent models has extended the field of application far beyond the three dimensions, incorporating information such as time, digital survey, historical documentation collected in the archive, etc. An easy way to understand the wide range of possibilities, that the virtual world generates, is to consider the 3D model as a platform on which it is possible, beyond the formal data, to upload many other information, which in turn can be organized and stratified over time, as well as questioned. The disciplines of Drawing and Representation must consider this new challenge and provide a reconstruction of documents by means of 3D models aimed at disseminating analytical interpretations at different levels of complexity, involving the disabled and non-disabled tourist, but also the students and the scholars.

The tactile prototyping of the digital reconstructions proposed by Veronica Riavis for the church of Sant'Ignazio in Gorizia fully accepts this challenge so, if on the one hand her work

aims to enhance a cultural asset and spread its knowledge through the education of the touch of blind people and the creation of mental images,

on the other hand, it can act as an immaterial and synthetic place where the analyzes carried out give a form usable to all, at all levels of knowl-

edge, relating to Christoph Tausch's architectural and artistic works.

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