Evaluation of houses with ramps designed by Vilanova Artigas in the decade of 1950.

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Abstract
Vilanova Artigas is known for building residential houses and one of his projects' main attribute are ramps. We analyzed five single-families residential projects with ramps designed by Vilanova Artigas built in the city of Sao Paulo in the decade of 1950. The research aim was to study these five selected projects and explore how the ramps were operationalized by the architect. For the project's analysis, eletronic mockup's were designed, and further diagrams were produced through the project's plans, sections, and elevations. We further compared the houses according to their site implantation, ramps' usage and visuals in the house rooms distribution. We observed that the ramps were not only designed for circulation, but also contributed to better organize and integrate the houses' rooms, and in some cases it also functioned as a living space. This study was the first to compare different designs of built houses with ramps by Vilanova Artigas focusing on the role of ramps in housing projects. We found important applications for its use in future architectural projects.

Key words: Vilanova Artigas, Modern Residence, Ramps.

Introduction
Vilanova Artigas began his architect career with an eclectic projectual language. Later, he was influenced by the ideas of Frank Lloyd Wright and Le Corbusier, until achieve his professional growth. The architect strive to innovate the houses built in Sao Paulo, regarding connection between spaces, rooms, and project's sectorization.

One of the elements that gained attention along his carrier were ramps. Ramps allowed the organization of the rooms in mid-levels, connecting them in a more pleasant way, by creating continuous and flowing spaces. This research aimed to study these selected projects and explore how the ramps were operationalized by the architect, their relation between the house and the street through its site implantation and access,and the views provided by the ramp route, space and form.

The selected projects were: Augusto Gomes de Mattos (1950), Geraldo D'Estefani (1950), Oduvaldo Viana (1951), José Mario Taques Bittencourt 2 (1959) e Leo Pereira Lemos Nogueira (1959).

Results and Discussion
For the project's analysis, eletronic mockup's were designed. Further diagrams (Image 1) were produced through the project's plans, sections and elevations using as base the original architect's draws and the FAUUSP's Library Digital Collection.

We observed that the ramps' adoption is not just related to its circulation function, but it was also part of the project program, structuring and organizing the rooms in a flowing way. The ramps also functioned as a living space, adding to an improved route and better visuals.

Since the decade of 1950, Artigas's architecture pursue a new style line, being the ramps an element considered important in his projects. Therefore, the evaluation of the selected houses justify is of great importance to the architecture field.

Conclusions
Through the residential projects with ramps designed by Artigas we found five different ways to position the ramps: i) open ramps in the in-house courtyard; ii) open ramps floating in space, (without “touching” on walls); iii) closed ramps; iv) perpendicular ramps in relation to the street; v) parallel ramps in relation to the street.

The open ramps the are located in generous spaces, such as the in-house courtyard, develop a dynamic route with sensations - an architectonic tour with different views that leads to the project evaluation during the route.

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