3D Imaging And Visualisation

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Abstract (300 word limit)

Aspects and research research results in this keynote speak dealing with the application of geometry of bionic forms in landscape architecture through process of modeling. Research results tends to established the correlation between the geometry of the landscape and the geometry of natural forms like leafs or flowers. The scientific methods used in the work are Voronoi diagram and Delaunay triangulation. The process of manual creation of these dual methods will be shown in detail because of the wide application of these methods in the area of spatial structures. Delaunay triangulation and Voronoi diagram are applied in the analysis of the geometry of bionic forms. The research suggests that geometrical solutions of specific spatial problems should be sought in the same physical assembly in the landscape architecture domain, therefore points to the congruence and the mutuality of the elements from which an area is composed. Within the research, the study was based on the geometry of the flower species, by using parametric modeling methods and experimental designs. Also in the keynote speak it will be given an introduction about situation in 3D printing at the University of Belgrade as well as the city of Belgrade private section.

Recent Publications (minimum 5)

Čučaković, A., Teofilović, N., **Jović, B**. (2014). Descriptive Geometry Education by Using Multimedia Tools, *Proceedings of the 16th International Conference on Geometry and Graphics (ICGG 2014)*, (pp. 262-265), ISBN 978-3-902936-46-2, Innsbruck, Austria, August 4-8, 2014.

Mihailo Grbić , Aleksandar Čučaković, **Biljana Jović**, Miloš Tripković, *Garden cultural heritage spatial functionalities: The case of anamorphosis abscondita at Vaux-le-Vicomte,* Journal of Cultural Heritage 18, (2016), Volume 18C pages 366-369. Elsevier Masson doi:10.1016/j.culher.2015.08.007 http://www.sciencedirect.com/science/article/pii/S1296207415001387

Aleksandar Čučaković, **Biljana Jović**, Mirjana Komnenov: *Biomimetic Geometry Approach to Generative Design*, Periodica Polytechnica Architecture, Volume Vol. 47, No. 2 (2016), pp. 70-74. paper 10082, DOI: 10.3311/PPar.10082, Creative Commons Attribution. (2016.), https://pp.bme.hu/ar/article/view/10082

Aleksandar Čučaković**, Biljana Jović**, *The advantages of using digital 3d animation in geometrical education*, SAJ_2017_9_ Serbian Archtectural Journal, polemical article, approval date 10 04 2017

Biljana Jović, Mirjana Komnenov: *Natalie's Ramonda pavilion*, finalist ADMC 2017: ASIAN DIGITAL MODELIING CONTEST ADMC 2017, 7-10 AUGUST, 2017, TOKYO, JAPAN



Biography (150 word limit)

Biljana Jović is docent at University of Belgrade, Faculty of Forestry, Department of landscape architecture and horticulture. She is an landscape architect and has completed her postgraduate studies (master of sciences thesis) from University of Belgrade Faculty of Architecture and PhD (doctoral dissertation) from University of Belgrade, Faculty of Architecture. PhD entitled: Geometrical education in domain of visualization and experimental designs by using virtual technologies. In her work combines the approach of landscape architects as well as engineers and artistic approach to geometric principles finds beauty and expression. Currently on position Deputy Chair for Landscape Planning and Design and Head of Master Studies. Finalist on Asia Design Modelling Contest Tokyo, Japan 2017. A member of the Serbian Association for Geometry and Graphics (SUGIG) and the International Association for Geometry and Graphics (International Society for Geometry and Graphics - ISGG)..

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Notes/Comments: