

## ȘTEFAN-IOAN GEORGESCU-GORJEAN – “THE CONSTRUCTOR” OF THE ENDLESS COLUMN

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Received: February, 2, 2019

Accepted: March, 14, 2019

**Abstract.** When we talk about the “Endeless Column” or about the “Infinite Sacrifice Column” from Tg. Jiu, we think of Constantin Brâncuși. When we talk about the “Endeless Column” or about the “Infinite Sacrifice Column”, we think that it is a work of art. In 2001, when we celebrated 125 years from C. Brâncuși’s birth, UNESCO drew up a report in which it was stated: “The Endless Column is not only a masterpiece of the modern art, but it is also an extraordinary engineering work.” The one who pointed out the engineering characteristic of this work of art was Ștefan-Ioan Georgescu-Gorjan.

**Keywords:** the Endless Column, constructor, Georgescu –Gorjan, Brâncuși.

### A short biography

**Ștefan-Ioan Georgescu-Gorjan** was born on September 11<sup>th</sup> 1905, in Craiova, 23 Madona Dudu Street. Between 1912 - 1916 he attended “Petrașche Poenaru” Primary School from Craiova. He easily learnt French and German at school, and English, Italian and Spanish in private. After primary school, between 1916 and 1923, he attended “Carol” High School, where he was remarked as a student with initiatives. He was a violinist in the high school orchestra, he edited the Mathematics Journal of “Carol I” High School, he acted in plays. He always found innovative solutions, solutions that were different from his colleagues’ ones for the mathematics homework. As a result he graduated the last two years in one. He went to study at the Polytechnics Institute of Bucharest, specialization electro mechanics. He took the entrance examination on the 17<sup>th</sup> place out of 400 candidates. At the same time with his engineering studies he also attended the Faculty of Letters and Philosophy, being interested especially in the history of arts. He was often seen at art exhibitions. He could speak French, German and Italian. Although still a student, he bought a lot of foreign books, but also art books, philosophy and poetry books. In order to earn money for these books, he drew up projects for his colleagues, and during the last year he worked as a technical inspector at the Brâncovenesc Hospital. During the same period of time, professor Nicolae Vasilescu Karpen organized a trip to Italy for his students to be able to visit the polytechnics institutes and engineering associations. Georgescu-Gorjan used this opportunity to improve his knowledge of Italian and Roman arts.



**Engineer at Petroșani.**

In 1928 he got his engineer diploma and on the 1st of September he took a job at the Romanian Anonymous Society for "Petroșani" Mining Company. Immediately after getting the job, he was sent to Wien for a six-month formation period at Siemens-Schuckert Plant.

After coming back to Romania, he continued his formation period at several mines from Jiu Valley; then he started a new job as engineer at the Central Workshops in Petroșani. He was put in charge with the department of casting and metallic structures, namely the designing department and trying labs. At the same time, he carried out a teaching activity at the School of Mining and Mechanical Foremen. Being pragmatic and a good organizer, he wrote scientific books and set up a gliding aero club in Petroșani. A lot of young people from the area, but also from other regions, Craiova included, flew here with his aeroplanes. Now, where the aero club used to be there is a neighbourhood called "The Airport". Several years ago, the city hall mounted here an IAR plane. The Company's management was pleased with his work and appointed him engineer-in-chief, putting him in charge with several activities abroad.

**Meeting Brâncuși again.**

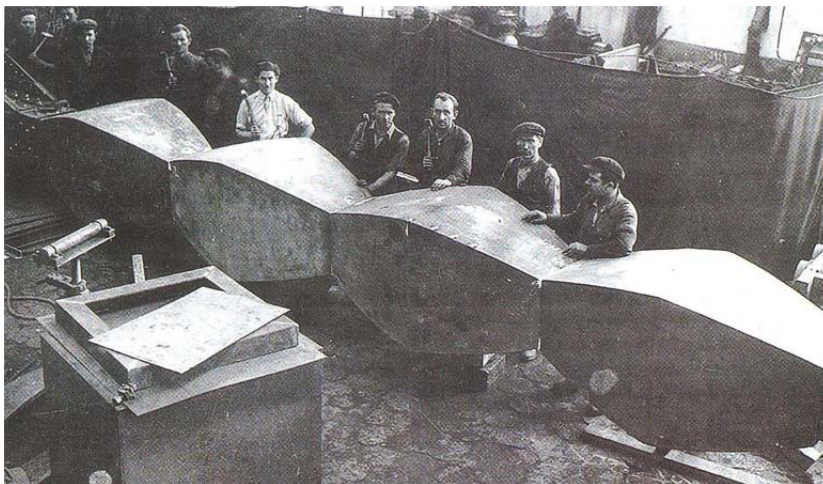
In December 1934 he went to Paris. It was a good opportunity to visit Constantin Brâncuși who lived in his parents' house in 23 Madona Dudu Street and who paid them several visits during 1914-1922 and who sent them postcards from his trips. Brâncuși's workshop was situated at 11 Impasse Ronsin Street. They discussed a lot about many things. Brâncuși noticed that the young engineer Ștefan Georgescu-Gorjean was, on the one side, a good professional, and, on the other hand, a lover of arts. Brâncuși told him about his idea to build a monument dedicated to the inhabitants of Tg. Jiu who, on the 14<sup>th</sup> of October 1914, stopped the German army. The monument was ordered to him by the city hall council. *"A solid iron pole must be cast in concrete, and some identical spatial elements must be placed on it, one above the other, like beads, empty inside. The perfect match of the elements will give the impression of continuity"*. In order to carry out such an idea, it was necessary to choose the building materials carefully, to calculate its stability in case of storms or earthquakes. In other words, an engineer was much needed, and he had just been selected: Ștefan Georgescu-Gorjean. On his following visit, on the 7<sup>th</sup> of January 1935, Georgescu-Gorjean presented his technical solution to Brâncuși. They discussed the details for the next two years.

**The Endless Column starts to be built.**

In August 1937, Brâncuși came back to Romania, at Petroșani. He was given Manager Ioan Bujoiu's approval for the elements to be cast at the Central Workshops in Petroșani. Georgescu-Gorjean and Brâncuși, starting from the formulae of plastic harmony, namely a report of 1:2:4, used by the sculptor to all his wooden columns, concluded that every element should have the small side of 45 cm, the long side of 90 cm, and the height of 180 cm. They also agreed that the monument should have 15 entire modules and a half of module to each end of the column, with a total height of 29,35 m. During this discussion, Georgescu-Gorjean used his all engineering knowledge in order to put in practice, with the financial and technical means he had, Brâncuși's ideas. The central pole, with a square cross section, with a side of 42 cm, was built and cast by Georgescu-Gorjean in three parts, of 8,93 m, 10 m and 9,4 m length in order to be able to transport them in carriages through Jiu

Canyon. The wooden model of the beads, as Brâncuși called the elements of the column, was made by the carpenter Carol Flișek, in direct collaboration with Brâncuși. In fact, Brâncuși carved, with his famous patience, a facet of the lime wooden model, with an almost imperceptible curve, and the other three facets were carved by Carol Flișek. In the first day of September 1937 the casting model was ready, and the casting in iron started on the 16<sup>th</sup> of September.

One month later, only two modules remained to be cast. Meanwhile, Georgescu-Gorjan carried out several mounting tests on horizontal plane. The iron for the pole was made at Malaxa Plant in Reșița. The pole started to be built on the 14<sup>th</sup> of September. The first part, having a weight of 9000 kilos, went towards Tg. Jiu on the 12<sup>th</sup> of October. The



Endless Column mounted horizontally for samples.

transport was carried out with carriages and it lasted three days. On the 18<sup>th</sup> of October the other two parts were sent and their welding was programmed for the 23<sup>rd</sup> of October. The column was finished on the 15<sup>th</sup> of November. So, we can notice that there were only 90 days from finding the technical solution on the 15<sup>th</sup> of August to the column erection on the 15<sup>th</sup> of November. Georgescu-Gorjan's good organization led to finalizing of the construction without any accident although the tools used were very simple. In the final stage the column should be covered in yellow according to Brâncuși's wish. After many searches, the brass was found in Switzerland. The plating was carried out by Brâncuși himself during the summer of 1938. The monument was inaugurated on the 27<sup>th</sup> of October 1938. Unfortunately, both Brâncuși as well as the engineer Georgescu-Gorjan weren't present at the ceremony.

### **The Eternal Song of the Column – Vertical.**

From 1953 until retirement in 1967, he worked in different institutions, but he always supervised the Column. He wrote a book entitled "I worked with Brâncuși" where he told how he collaborated with Brâncuși. The book was published at Universalia Publishing House in Bucharest and it was launched on the 3<sup>rd</sup> of February 2005. Georgescu-Gorjan didn't participate to this event. He had died twenty years before, on the 15<sup>th</sup> of March, eternizing Brâncuși's words: "The Endless Column is like an eternal song which takes us to the infinite, beyond any pain or joy". Georgescu-Gorjan's last word was "Vertical". The local council of Tg. Jiu conferred him, post-mortem, in 2007, the title of "Honorary Citizen" of Târgu-Jiu for special merits regarding the construction of "Calea Eroilor" Monumental Assembly from Târgu-Jiu, as the author of the technical solution of the Endless Column, work of sculptor Constantin Brâncuși.

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