

BARRY WOODS JOHNSTON

Emotive Figurative Sculptor

barryjohnstonart.com

Art Agents: Please contact interim representative

David Anderson, MFA

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ADDITIONAL ACHIEVEMENTS

Wherever his talents have led him, Johnston has branched into in-depth independent studies. His formal education was completed in Architecture at Georgia Tech; studies with Joseph De Creeft at the Art Students League in New York; studies under sculptors Walker Hancock, Harry Rosen, and Tony Greenwood at the Pennsylvania Academy of Fine Arts in Philadelphia; and with Michael Lantz at the National Academy of Design in New York. He then ventured to Switzerland, for independent studies in philosophy with Francis Schaeffer; and studied art with Madame Simi, Enzo Cardini, and Romanelli Studios in Italy for two years.

His self motivation and abundant creative talents led him to study classical piano with Reynaldo Reyes for seven years, as well as music theory and composing with Pam Quest for five years. He completed an anatomical dissection of a cadaver at Georgetown University Hospital, and was offered a position teaching anatomy (which he declined, citing his lack of medical training). He has written four books available [online at amazon.com](https://www.amazon.com).

In addition to sculpting, Johnston's academic strengths are in mathematics, geometry, drafting, physics, and design; he is also fluent in Italian, and partially fluent in German and Chinese. As a graduate in architecture from Georgia Institute of Technology, Johnston has a strong background in math, physics, and geometry, and has always had a heightened capacity for 3-D visualization.

Johnston is the inventor of the Johnston Engine, and has established Soony Systems, Inc as an outgrowth of the thermodynamic discoveries surrounding the Johnston cycle and near-adiabatic engine. In addition to academic engineers, Johnston has assembled an impressive team to work on the engine development including David Kalensky, senior engineer who manages and conducts

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research in combined heat and power for the Gas Technology Institute (GTI) in Chicago; and Daniel Mather, founder of Digital-Engines, a research and design consultancy whose customers include Fortune 500 engine and automotive companies and premiere research laboratories including the non-profit Gas Technology Institute, and the Argonne National Laboratory, Oak Ridge National Laboratory, and Sandia National Laboratory.

Partnering with GTI to pursue a DOE grant in 2013, Johnston and David Kalensky anticipated the 25-kW engine would achieve breakthrough 51% efficiency in generating electricity from heat. In 2017, UMD Department of Aerospace Engineering Associate Professor, Dr. Christopher Cadot and graduate student Wiam Attar, conducted a thorough thermal and pressure testing and in-depth cycle analysis of the Johnston Engine serving as the prime mover in a residential-scale combined heat and power system, and found the peak power output is 6.8 kW, the peak BMEP is 389 kPa, and the peak efficiency is approximately 60%.

With 19 related patents, Johnston's company has developed the engine design while exploring industrial sources and ways to integrate his breakthrough into a number of clean, energy-saving applications. Johnston's computer skills include 3-D Solidworks, NIST Refprop, and Photoshop.

A professional sculptor for some fifty years, Johnston is proficient in pantograph enlarging, plaster casting, welding, machine shop milling, bronze casting and patinas. His commissions have employed as many as thirty skilled workers.

Johnston teaches drawing and apprentices students who want to learn his sculptor skills; practices piano daily and challenges himself to learn new classical compositions, as well as composing original works; practices German, Italian and Chinese languages; maintains a regime of walking every day; and plays tennis with competitive players 1-3 times per week.

GRANTS and AWARDS

DOE Appropriate Energy Technology Small Grant (proposal #81-DC-0013-P-30,524) was awarded August, 1981. Johnston designed and built a thermal solar, gravity-flow circulatory system that became a stepping stone to the present innovation.

CleanTech Open Semi-Finalists was awarded in 2014 to sharpen his marketing skills while benefitting from \$20,000 in equivalent awards in training and software, which Johnston avidly pursued taking by 15 classes in one year.

Maryland Industrial Partnership (MIPS) awarded two \$100,000 grants from 2015 to 2017 to work with Dr. Christopher Cadou, Department of Aerospace, University of Maryland, which validated the engine concept and 60% efficiency.