

Letters to the Editor

1. From George S. Robinson, III, Esq.
2. On behalf of Mr. Edward L. Hancock
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From Dr. George S. Robinson, III, Esq., January 18, 2014.

Dear Bob,

In my professional career I handled rather bizarre cases and issues all over the world, both for NASA and particularly for twenty-five years for the Smithsonian Institute. Ninety percent of my Space activities involvement involved writing and publishing books and articles, giving speeches, and teaching Space Law and Commerce for many years. It was done on my own time. The Smithsonian Institute Secretary and Chief Justice Warren Berger only encouraged me to use SI time to start the first two *International Conferences on Doing Business in Space: Legal Issues and Practical Problems*. Those conferences brought USSR reps to the United States to learn how to negotiate and run private sector Space businesses; and to initiate my idea of two conferences of expert US engineers, scientists and lawyers together to discuss formulation of the First Constitutional Convention for long duration and permanent Space inhabitants. My "profession" as an attorney was separate and distinct from developing realistic concepts of the empirical bases of Space Law ... any law.

Thank you, Bob, for your work initiating and very successfully managing of the Journal of Space Philosophy. Very much needed.... Very valuable to many folks in many different disciplines.

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About the Author: Dr. George S. Robinson, III is one of the most distinguished Space Law experts in the world. His book, book chapter, and professional article publications – over 100 – are found throughout the aerospace and Space literature and continue in 2014. He served as International Relations Specialist for NASA and legal counsel to the FAA, the Department of Transportation, and the Smithsonian Institution in Washington, DC. He serves on numerous Boards of Directors for science research.



Editors' Notes: Dr. Robinson was a strong supporter of the Aerospace Technology Working Group (ATWG), which was the forum from which Kepler Space Institute emerged. KSI is proud to have him as an Editor of the *Journal of Space Philosophy*. His long legal service to the Space community puts him in a unique group of professionals building the legal foundations for the Space Age. **Bob Krone and Gordon Arthur.**

On behalf of Edward L. Hancock, Educator, Author, Athlete.

Dear Bob,

We, Ed Hancock's Family, were so pleased to have his special life experiences recorded in the 2010 *Nevada Review*, Vol. 2, Issue 1, 102-126, and to have it include your personal friendship with him starting in Reno in 1943 and continuing to today.

Ed's quote in the Journal about his viewing the stars is relevant to your founding of the *Journal of Space Philosophy*. Here were his thoughts:

I like sleeping out on the deck, but I have a hard time getting up and down. I like looking at the moon. I like looking at the stars. Every night I go out and look at the stars until 1:30 in the morning and look at the stars and make contact and think about the millions of people who have looked up at the stars. It's like their lives are in there too. And I have to get up and walk around here to look at the North Star and the Big Dipper and the Little Dipper up there. But I do that, and that North Star, it's just a faint light. (126)

Leslie Donovan, Daughter of Edward L. Hancock

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Editor's Notes: Lifelong friendship is a rare and satisfying experience. Ed Hancock and I grew up together in Reno, Nevada starting in Junior High School. He talks about our unguided climbing of the 17,802 foot high Popocatepetl Volcano in Mexico in 1949 in his Nevada Review interview.

His diverse active career included hitch-hiking in Europe, boxing, football, University of Nevada basketball, writing books on literature, quoting literature, instructing university composition, earning the University of Chicago Master's Degree in Literature – one of the most difficult programs in the world of literature – and being Dean of the Literature Department at Nevada Truckee Meadows Community College and Fulbright Scholarship teacher in England. As this goes to press on April 1, 2014, Ed's health is failing. His views of the heavens will find resonance with *Journal of Space Philosophy* readers. **Bob Krone**.



Ed Hancock



Bob Krone

Mexico, Summer 1949, *Dos Pobre Estudiantes*.
Before climbing the Popocatepetl Volcano

Ed Hancock



Varsity Basketball, University of Nevada



Professor

From Rob Godwin, Founder, *The Space Library*

Dear Bob,

This is to inform you, and your readers, of *The Space Library*. I began writing the code for it five years ago, about the time we had mentioned the idea to you and Sue at dinner at an ISDC Conference. We have kept it under wraps during a long and difficult design and development period. Your recent question to me about converting your issues of the *Journal of Space Philosophy* to e-books arrived at a time when we had just made the decision to Beta Test the Library.

Our site is a hybrid of the best parts of the most successful websites on the net, hopefully without most of their pitfalls.

Think of Wikipedia/Facebook/Amazon/Kickstarter/Youtube/Ancestry all combined, but just for Space.

Similarities:

- Wikipedia: Multiple contributors, simple internal links, no hard code skills.
- Facebook: Each and every contributor has a personal page.
- Amazon: Contributors can sell e-content, contributors get paid for all referrals.
- Kickstarter: Subscribers can support/pay the contributor of their choice.
- YouTube: Video and Audio enabled.
- Ancestry: Institutional databases can be added and searched, given away, or sold.

Differences:

- Wikipedia: No one can change a page without the creator's express permission; only authorized contributors can add content.
- Facebook: No deluge of unrelated advertising; even people who are long gone have a personal page (e.g., Jules Verne, Wernher von Braun, etc.).
- Amazon: No ISBN needed to sell content. No one telling you how much to charge for content. Sell a single page or a whole book.
- Kickstarter: Subscribers can change their allegiance to a different author when they resubscribe.
- YouTube: Contributors can SELL audio and video or give it away for free.
- Ancestry: Links can go back to the contributing institution if they want to host and sell their own content.

Unlike most content-management systems, it is infinitely scalable because it uses the well-tested open-source Mediawiki engine as its foundation. *Mediawiki is NOT Wikipedia*. It is the engine that Wikipedia uses.

The Wiki concept was first created by Wikiwiki Web as a way to allow multiple users to add content to a website without learning code. Adding internal links is as simple as adding [[square brackets]].

The site also has an Almanac, which provides an invaluable tool for historians: a day-by-day breakdown of events with nothing too small to include. At the moment there are over 25,000 pages, plus more than 5,400 documents and images, over 400 hours of rare audio, and dozens of hours of video. There are already indices to the Journal of the British Interplanetary Society and every issue of the Journal of the V&R.

It is hooked into PayPal and includes the powerful Sphinx search engine as well as a Beta-test PDF search engine. We will be adding huge databases of NASA documents, space patents, video, and personal archives of paperwork and photographs. The whole site will be available for both individual and institutional subscriptions. It will start at \$5/month or \$50/year: the cost of a single book for a year's access.

There is no single site on the Internet like this and certainly nothing like it just for Aerospace. It is a publishing platform, a news source, an encyclopedia, an almanac, a social network, and a shop.

Initially, contributors will be selected by referrals and committee. Our goal is to allow experts to continue to earn something for their expertise. The site will not be open to general public editing. Some people may call this "gate-keeping." It is. But it is also a statement of us choosing to invest our time, money, and effort in the people we wish to support. If we choose the wrong content and the wrong contributors we live or die by those choices. This is the same basic choice we have had to make over 30 years of publishing.

We will be happy to create your Kepler Space Institute (KSI) account and have you participate in the Beta Test. You, and your Board of Directors, will appreciate that until we are fully operational with the Space Library there can be no guarantees that you may not run into pitfalls or setbacks and you won't be able to hold us liable for any mishaps!

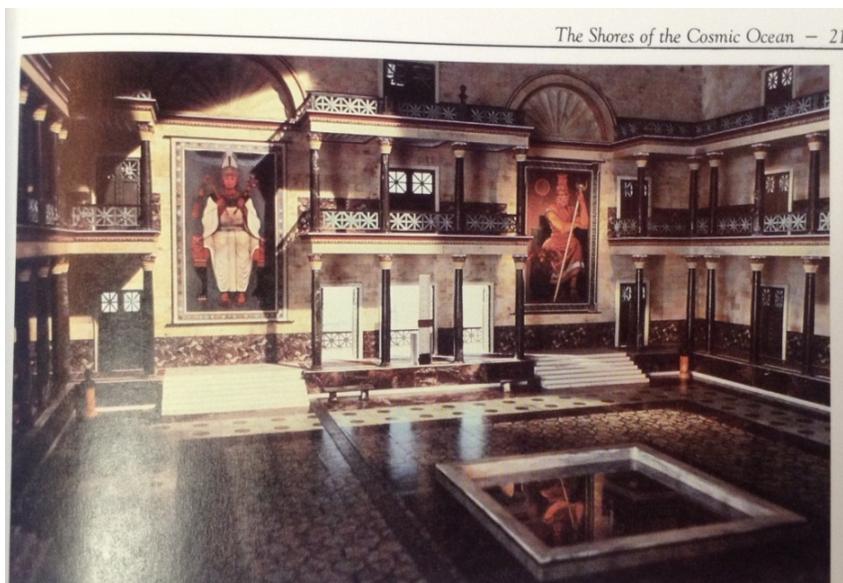
Rob Godwin,
Apogee Space Press
Founder, *The Space Library*

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Editor's Notes: In Carl Sagan's *Cosmos* book and Video Series, 1980 (Carl Sagan Productions, 14, 18-20, 50, 62, 188, 281, 333-37) he stated: "It was in Alexandria, during the six hundred years beginning around 300 BC, that human beings, in an important sense, began the intellectual adventure that has led us to the shores of space" (*Cosmos*, 18).

Alexander the Great constructed the city on a lavish scale to be the world center of commerce, culture, and learning. The knowledge apex of Alexandria was the Library and its associated Museum. It was the brain and glory of the greatest city on the planet 2,000 years ago. There was a community of scholars, exploring physics, literature, medicine, astronomy, geography, philosophy, mathematics, biology, and engineering. For centuries after Alexandria, the Greek Kings of Egypt supported research and maintained the Library as a working environment for the best minds of the age. There could have been half a million books (that summary paraphrases Sagan, *Cosmos*, 20).

By 500 AD, the glory of the Alexandrian Library was completely destroyed and a dim memory. The Dark Ages for civilization and brainpower followed. Today not one physical scroll remains and only a small percentage of the intellectual treasure centered in the Library has survived.



The Great Hall of the ancient Library of Alexandria, Egypt. A reconstruction based on scholarly evidence. Carl Sagan, *Cosmos*, 1980, p. 21.

Computers and the electronic and information sciences have now created a capability unimagined in ancient Alexandria. Space information can be easily accessed by anyone anywhere on Earth, or by the few humans who have been in Space over the past fifty years.

Rob Godwin has made a paradigm shift leap from the Apogee Space Books, C. G. Publishing, that he and Richard Godwin founded in 1984. My short introduction to the Space Library transported me back to Carl Sagan's *Cosmos*. Carl is saying, "Thank you Rob Godwin" and Kepler Space Institute is excited about its potential to capture and advance knowledge of the Space Age. **Bob Krone and Gordon Arthur.**

From Mrs. Bea Parnes, February 19, 2014

Dear Bob,

Congratulations on the *Journal of Space Philosophy*. I appreciate you inviting me to provide a summary of Sid Parnes's career findings on creative problem solving, creative thinking and breakthrough thinking.

In Sid's last work, "VISIONIZING – INNOVATING Your Opportunities," he emphasizes "Bringing Your Dreams into Reality" – not many dreams come true – but with your guidance the *Journal of Space Philosophy* will become a reality. Although Sid's work was on earth, his writing and thinking could be applied to exploring space and the philosophy behind it. Putting a man on the moon was only the beginning of a beautiful dream.

As Sid said "viewing the future is a journey – not a destination – no fixed goals – but flexible ones that can be changed – never limiting your possibilities." Good luck on your journey into space.

Bea Parnes



Sid and Bea Parnes

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Editor's Notes: The Creative Education Foundation (CEF) has been teaching adults and children the *Applied Imagination* process since Alex Osborn and Dr. Sidney J. Parnes created the Foundation in 1954. Sid became its Director in 1966 and continued his leadership, with Bea Parnes help, until his death in 2013. Dr. Richard Kirby, the first President of Kepler Space Institute (January to September 2009), negotiated a meeting between Sid, myself, and Walt Putnam in 2007. The essential role of creative thinking for Space-Age development has been known for a century. We thank Bea Parnes for providing us these valuable memories from her long partnership with Sid. **Bob Krone.**

From Richard Godwin



March 17, 2014

Journal of Space Philosophy

Dear Editor,

Being deeply involved with both the publishing industry, through my company Apogee Books, and the space commercialization market as CEO and president of Zero Gravity Solutions (ZGSI), I have witnessed a growing awareness regarding the potential for space technologies to provide solutions among to existential threats to the global population.

Humanity is facing a perfect storm that may potentially wipe out our species. Consider the factors we are now facing:

- Global climate change
- Population growth to 9 billion by 2050
- Disease threats to monoclonal cash crops
- Depletion of nutrition and minerals in the soil
- Need to farm more land to increase yields
- Scarcity of fresh water
- Public concern about genetically modified food (GMO)

Throughout our existence, survival of our global civilization has been and probably always will be based upon our agricultural practices. Technology has allowed us to populate the whole planet in the space of a few thousand years. If we were still hunter-gatherers we would not be sitting here today. Our technology is the only means for us to keep ahead of nature's culling practices. If we don't keep ahead, nature will indeed cull our species.

The development of human spaceflight has always been at the forefront of our advanced technologies. The reason is because human spaceflight brings to bear almost every technological discipline in order to carry people off world or to other worlds. The innovations derived from space-related technologies have been responsible for cutting-edge developments in human medicine, propulsion, materials science, electronics, chemistry, physics, psychology, engineering, life support, and almost every other

190 NW Spanish River Boulevard, Boca Raton, Florida USA

www.zerogsi.com

endeavor involved in human activities, including of course agriculture. More science advancements come out of space flight technologies than ANY other human endeavor; this is why it is so relevant now to agricultural and medicinal advances.

In the past, human spaceflight has been driven by big government and big engineering. Those segments are still prevalent, but a sea change has occurred as focus has shifted beyond the achievement of flying into space and establishing the ISS to the creation of commercial value and groundbreaking innovations. Science is being applied not only to turn a profit, but also to enhance our lives and maybe even to address the serious threats to humanity's very existence.

Now backed by the support and cooperation between private industry, government and NASA, an entirely new space economy is emerging in the United States in which rapid innovation is enabled by frequent and regular access to space and the growing infrastructure to support research. This is a golden opportunity for science to change the world by applying and commercializing its cutting edge technology.

Zero Gravity Solutions is the first public company focused on commercializing, industrializing, and monetizing a growing pipeline of products resulting from space-developed and derived technology, which can produce recurring and scalable revenue. Our mission is to use space technology to improve life on Earth.

ZGSI's two new breakthrough technologies, designed for and derived from Space, are focused on providing improved nutrition and sustainable agriculture on Earth in order to feed a growing population without GMO.

ZGSI's technologies are:

1. **Directed Selection™** – Production of new varieties of patentable stem cells *en masse* that can only be developed in the weightless environment of long-term microgravity available on the ISS.
2. **BAM-FX™** – a platform technology that provides systemic delivery of ionic minerals and micronutrients to plants at the cellular level.

Directed Selection™ is a proprietary technology designed to use the unique conditions of near-zero gravity in low earth orbit to create plants with beneficial traits of great value to humanity. Zero Gravity Solutions, Inc. is using this proprietary new platform technology to create more robust plant varieties adapted toward desirable characteristics: our IP, derived from six research flights aboard the ISS. Because genes perceive microgravity as a threat, they express differently in space. With the differential gene expression, plant cells can have an improved ability to adapt to a changing environment or disease-causing organism. The plant cells can be driven to adapt toward desirable traits by artificially introducing stress conditions, such as cold, heat, drought, or salinity. These changes in the genome of the plant are done without the

need for additive or subtractive genomic engineering; thus, the plant is still natural, only with previously dormant genes now expressed.

BAM-FX™ is our first revenue-generating space-derived commercial product and it will be introduced into the agricultural marketplace in 2014. BAM, which stands for bioavailable minerals, is an ionic mineral and micronutrient delivery system for plants that was originally developed to ensure fresh food crops for astronauts in space. Our Chief Science Officer and founder, John W. Kennedy, recognized that future NASA space programs were directed at the long-term goals of sending astronauts on extended deep space missions. Cargo volume and weight limitations dictate that a continuous supply of fresh food crops be grown to feed the crew on such journeys. Plants also provide essential minerals with organic carriers, making plants a superior source of nutrition compared to vitamin and mineral supplements. A new way for robust food crops to support astronaut nutrition and immune requirements was needed, and so the BAM-FX concept was born. Although developed with space habitat support in mind, BAM-FX promises substantial agricultural benefits here on Earth. Current field trials are well advanced and performing well in conjunction with several universities. Initial research clearly indicates that the BAM-FX ionic delivery system increases the biomass and enhances the plants immune system.

The ability to impact plant food crops using next-generation technologies – far superior to existing fertilization and nutritional supplementation practices – paves the way for revolutionary advances in world agriculture and methods of global food supply.

Today's new Space economy is further fueled by the awakening of global consciousness that space-derived innovations are potential solutions to existential problems and the pathway to innovation and commercialization is now paved through the collaboration of government, NASA, and private industry. This is an exciting time for the space industry as a whole and for Zero Gravity Solutions to be one of the game-changing innovators along with some of the world's most influential and leading-edge companies in sustainable agriculture who are rising to meet the food security challenges of feeding 9 billion people by 2050.

It will take the power of government, the drive of private industry, and the vision and ingenuity of scientific research and innovation to turn the possibility of meeting tomorrow's challenges into reality, which will create a better future for us all.



Richard Godwin, President Zero Gravity Solutions

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190 NW Spanish River Boulevard, Boca Raton, Florida USA

www.zerogsi.com

About the Author: Richard Godwin is president and CEO of Zero Gravity Solutions, Inc. (ZGSI), a public company committed to becoming the first zero gravity biotechnology company focused on commercializing, industrializing, and monetizing a growing pipeline of products resulting from space developed and derived technology. Mr. Godwin was originally introduced to this technology while working recently as a business consultant for SpaceX on its nascent DragonLab program. He was formerly a Board Director at a large National Space Society and Board Director of the Space Frontier Foundation. He has been a space advocate for over 20 years and is a founder and the president of Apogee Books, a publishing company with an award-winning line of space books.

