

# Bernal Project: scene 2 (Origins of OZET)

December 2007



# **Bernal Project**

Performance history

#### formula.

Tenor saxophone, trumpet.

First performance 8 October 2007 at the Rattlestick New Music Series.

Aaron Meicht (trumpet)

Seth Meicht (tenor saxophone)

#### scene 2.

Trumpet, chimes, computer playback.

First performance 3 December 2007 at the Rattlestick New Music Series.

Aaron Meicht (trumpet/chimes)

#### scene 5-7.

2 violins, trumpet, alto & tenor saxophone, 2 clarinets, electric guitar, 2 acoustic guitars, keyboards, chimes, computer playback, 2 actors.

First performance 9 May 2008 at the Ontological-Hysteric Theater Experimental Music Series.

Alex Barreto (actor)

Eric km Clark (violin)

Kara Feely (actor)

Travis Just (alto saxophone/clarinet)

Aaron Meicht (trumpet)

Seth Meicht (tenor saxophone/clarinet)

James Moore (electric guitar/acoustic guitar)

Quentin Tolimieri (keyboards/chimes)

Harris Wulfson (violin/acoustic guitar)

## scene 8.

2 violins, trumpet, tenor saxophone, computer playback.

First performance 18 February 2008 at the Rattlestick New Music Series.

Eric km Clark (violin)

Aaron Meicht (trumpet)

Seth Meicht (tenor saxophone/clarinet)

Harris Wulfson (violin)

### **Bernal Project - some notes**

I would describe the electronic music for the Bernal Project as acousmatic. In earlier decades it would be easy to call it a 'tape' part. In performance I generally use the computer to playback the sound. The electronic part is composed along with the score and acts both as a foundation and sound-space creator as well as an environment to which the live acoustic instruments can dialog with. The loudspeakers are evident in performance and the performers, though movement, make this connection obvious to bridge the immediate gestures of performance to the static playback.

Sounds include unaffected acoustic recordings of the acoustic instruments along with processed versions of those recordings. Most processing is simple filtering or distortion and is accomplished using a variety of programs such as Logic, Ableton Live, Soundhack, Spear, and Kyma.

Synthetic sounds are also used and have been created by the programs above as well as UPIC, a GENDY simulator, and simple software synths.

The scores of the Bernal Project are also just performance guides for the work to be used by the performers. I rely greatly on improvisation when performing these pieces. The collaboration with the other musicians is an example of engaging in the kind of dialectic necessary to develop final compositions through a collaborative process. Ultimately, this process leads to a deeper understanding of our own group psychology and its influence on the creative product. Therefore, each new work represents a long and unique evolution through the compositional and rehearsal process.

I do embrace the jazz origins implicit in this process. In fact, it is a deep connection to the jazz tradition and, more specifically free jazz, and the effort to extend that tradition that is one focus of my work. In addition, I maintain an interest in what some call sound-based composition. In this way, I am drawing from late-twentieth-century European music and the American experimental impulse that confronts and interrogates convention.

# Bernal Project – scene 2 for trumpet, chimes, computer playback

Bernal Project scene 2 is very much an improvisation for trumpet with an acousmatic electronic stereo playback. The computer part includes a drone (F/A) that varies in texture, but underscores the entire work. There are also recordings of trumpet and flugelhorn that are sometimes naturally sounded and other times processed. Synthetic sounds were generated with various software synths in Logic and in Ableton Live, as well as hardware synths, notablly the UPIC. (UPIC recordings were made in Paris in 2002.) Processes include distortion, bit reduction, and filtering.

The live performance is up to much interpretation by the performer. The score is really a guide to sound that occur. Many of the improvisations and specific pitch material is connected to the formula.

Text to be read silently by the performer is taken from The World, The Flesh and The Devil by J. D. Bernal (E. P. Dutton & Co., 1929).



first performance was 3 December 2007 Rattlestick New Music Series, New York City Aaron Meicht (trumpet)

Bernal Project scene 2 computer playback





#### **Bernal Project**

scene 2 text

(to be read silently by the performer)

Man is occupied and has been persistently occupied since his separate evolution, with three kinds of struggle: first with the massive, unintelligent forces of nature, heat and cold, winds, rivers, matter and energy; secondly, with the things closer to him, animals and plants, his own body, its health and disease; and lastly, with his desires and fears, his imaginations and stupidities. In each of these divisions in turn we will make the arbitrary assumption that his progress in it will continue while in other respects he remains the same.

When the technicalities of space navigation are fully understood there will, from desire or necessity, come the idea of building a permanent home for men in space.

At first space navigators, and then scientists whose observations would be best conducted outside the earth, and then finally those who for any reason were dissatisfied with earthly conditions would come to inhabit these bases and found permanent spatial colonies. Even with our present primitive knowledge we can plan out such a celestial station in considerable detail

Imagine a spherical shell ten miles or so in diameter, made of the lightest materials and mostly hollow; for this purpose the new molecular materials would be admirably suited.

The source of the material out of which this would be made would only be in small part drawn from the earth; for the great bulk of the structure would be made out of the substance of one or more smaller asteroids, rings of Saturn or other planetary detritus.

The outermost layer would have a protective and assimilative character. The presence of meteoric matter in the solar system moving at high speeds in eccentric orbits would be the most formidable danger in space travelling and space inhabitation.

The outer shell would be hard, transparent and thin.... Underneath this layer would probably lie the main stores of the globe in the form of layers of solid oxygen, ice and carbon or hydro-carbons. Inside these layers, which might be a quarter of a mile in thickness, would lie the controlling mechanisms of the globe.

Inside the mechanical layer would be the living region and here imagination has a more difficult task. It would, of course, not be necessary to have either houses or rooms in the same sense in which we have them on the earth. The absence of bad weather and of gravitation makes most of the uses that we have for houses superfluous.

This three-dimensional, gravitationless way of living is very difficult for us to imagine, but there is no reason to suppose that we would not ultimately adjust ourselves to it. We should be released from the way we are dragged down on the surface of the earth all our lives: the slightest push against a relatively rigid object would send us yards away; a good jump - and we should be spinning across from one side of the globe to the other. Resistance to the air would, of course, come in, as it does on earth; but this could be turned to advantage by the use of short wings.

A globe interior eight miles across would contain as much effective space as a countryside one hundred and fifty miles square even if one gave a liberal allowance of air, say fifty feet

The inhabitants can be divided into the personnel or the crew, and the citizens or passengers. With the first - except that their tasks would be more complicated and more scientific than those that fall to the officers and crew of a modern ship - we need not be concerned. To the others the globe would appear both as hotels and laboratories. The population of each globe would be by no means fixed; constant interchange would be taking place between them and the earth even when the greater portion of human beings were actually inhabiting globes. There would probably be no more need for government than in a modern hotel: there would be a few restrictions concerned with the safety of the vessel and that would be all.

#### Bernal Project : scene 2 text : p.2

Criticism might be made on the ground that life in a globe, say of twenty or thirty thousand inhabitants would be extremely dull, and that the diversity of scene, of animals and plants and historical associations withich exist even in the smallest and most isolated country on earth would be lacking. This criticism is valid on the initial assumption that men have not in any way changed. Here, to make globe life plausible, we must anticipate the later chapters and assume men's interests and occupations to have altered. Already the scientist is more immersed in his work and concentrates more on relations with his colleagues than in the immediate life of his neighborhood. On the other hand, present æsthetic tendencies verge towards the abstract and do not demand so much inspiration from untouched nature. What has made a small lown or a small country seem in the past a narrow sphere of interest has been on the one hand its isolation, and on the other hand the fact that the majority of its inhabitants are at so low a level of culture as to prevent any considerable intellectual interchange within its boundaries. Neither limitation holds for the globes, and the case of ancient Athens is enough to show that small size alone does not prevent cultural activity. Free communications and voluntary associations of interested persons will be the rule, and for those whose primary interest is in primitive nature there will always remain the earth which, free from the economic necessity of producing vast quantities of agricultural products, could be allowed to revert to a very much more natural state.

As the globes multiplied they would undoubtedly develop very differently according to their construction and to the tendencies of their colonists, and at the same time they would compete increasingly both for the sunlight which kept them alive and for the asteroidal and meteoric matter which enabled them to grow. Sooner or later this pressure, or perhaps the knowledge of the imminent failure of the sun, would force some more adventurous colony to set out beyond the bounds of the solar system.

Even with such velocities journeys would have to last for hundreds and thousands of years, and it would be necessary - if man remains as he is - for colonies of ancestors to start out who might expect the arrival of remote descendants. This would require a self-sacrifice and a perfection of educational method that we could hardly demand at the present. However, once acclimatized to space living, it is unlikely that man will stop until he has roamed over and colonized most of the sidereal universe, or that even this will be the end. Man will not ultimately be content to be parasitic on the stars but will invade them and organize them for his own purposes.

