

Matt Browne

# Ancient Machines

*for Saxophone Quartet*  
2010-11

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## Program Note

The original concept for this piece was to have a suite of five or six short movements for saxophone quartet, where each one depicted a different ancient invention from around the world. During my research, however, the philosophy behind the act of invention became more important in my mind than the actual inventions themselves. The more I studied, the more I began to notice a pattern behind the motivation to invent these devices. In addition to basic survival, there seems to exist two distinct motives to *create* something. The first is to enact control over the masses, and protect humanity's already-attained knowledge. Inventions of this kind tend to include war machines and grizzly torture devices, such as the *Brazen Bull* (the subject of the first movement). The second is to better understand the unknown aspects of our universe, and to attain as much knowledge as possible. These inventions, such as the compass and cosmic clocks (the subject of the second movement), tended to lean toward our observational and exploratory impulses. While both these types of inventions required more or less the same prowess in engineering and mechanical skills, there still exists an interesting ethical duality between the inventions themselves, in addition to their creators. This duality is explored in the following two movements:

### **I. Perillos and Phalaris**

The title refers to, respectively, the inventor and commissioner of a torture and execution device used in ancient Sicily (c. 560 BC) called *The Brazen Bull*. The device was a hollow piece of metal shaped like a bull in which the convict was locked inside and a fire was lit under it. The criminal was left there to roast to death. In addition, the bull was built with an intricate system of pipes whose purpose was two-fold. First, they were used to dispel the smoke from the fire into what Phalaris called "spicy clouds of incense". They were also designed to transform the sound of the victim's screams into what sounded like the cry of a bull. Perillos assured Phalaris that "(his screams) will come to you through the pipes as the tenderest, most pathetic, most melodious of bellowings".

The explosive energy of the piece, unrelenting till the end, is meant to represent not only the dance of the roaring fire, but also the sadistic giddiness in the minds of the title figures with respect to the device.

### **II. Su Song's Cosmic Engine**

Su Song, a Chinese polymath, created his *Cosmic Engine* in 1092 in order to calculate the position of various celestial bodies at any given date with near-flawless accuracy. The engine itself was a massive mechanical contrivance, standing 10 meters high and containing hundreds of precisely sized gears, run by a rotating water wheel.

The piece begins simply, with the first few short notes expanding into a more complex cross-rhythm marked by slap tonguing and multiphonics. This gives way to a largely robotic sounding tune, meant to represent the mechanical nature of the source material. After this plays out, a contrasting tranquil middle section is played, meant to represent the mystery and awe of the cosmos, the entity that this machine was built to understand. The mechanical section returns shortly after, chugging along until a burst of energy reminiscent of the first movement explodes on to the scene, marked by a triumphant return of the tranquil melody, played now with confidence as it, paired with an energetic version of the mechanical theme, draws the piece to a close.

Duration: c. 7 minutes

**[www.mattbrownecomposer.com](http://www.mattbrownecomposer.com)**

For my good friend, Scott Hunt

# Ancient Machines

for Saxophone Quartet

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## I. Perillos and Phalaris

**Fast and brutal**  $\text{♩} = 160$

Soprano Saxophone

Alto Saxophone

Tenor Saxophone

Baritone Saxophone

**5**

*p creeping*

*p creeping*

*p creeping*

**10**

*mp*

*mp*

*tr*

*tr*

**15**

*mf*

*p*

*mf*

*tr*

*tr*

*tr*

*tr*

**1.9.18**

## Ancient Machines - Full Score (Transposed)

Musical score page 2, measures 16-21. The score consists of four staves, each with a treble clef and a key signature of one sharp. Measure 16 starts with a sixteenth-note pattern. Measures 17-18 show eighth-note patterns. Measure 19 features a melodic line with eighth and sixteenth notes, followed by measure 20 which continues this pattern. Measure 21 concludes the section with eighth-note patterns. Metronome markings of 120 BPM are present above the staff.

Musical score page 2, measures 22-27. The score continues with four staves. Measures 22-23 show eighth-note patterns. Measure 24 begins a new section with sixteenth-note patterns. Measures 25-26 continue this sixteenth-note pattern. Measure 27 concludes the section with eighth-note patterns. Measure 27 includes a dynamic marking of *mf* and a tempo marking of 120 BPM.

## Ancient Machines - Full Score (Transposed)

3

27

29

f

f

f

31

32

mf

ff

mp

p

ff

mf

3

mp

p

3

pp

ff

mf

3

p

pp

## Ancient Machines - Full Score (Transposed)

38

*pp*

*fff* 6

*pp*

*fff*

*fff*

*tr*

*tr*

*sub. ff*

*ff*

43

48

*fff* *sub. mp*

*fff* *sub. mp*

*fff* *sub. mp*

*fff* *sub. mp*

Timbral Trill - Finger middle finger F sharp (w/ 8ve key)  
and alternate opening and closing the low D key

*pp*

*mf*

Ancient Machines - Full Score (Transposed)

5

51

**53**

Timbral Trill - Finger Palm D# and alternate opening and closing middle C

Finger Palm E and alternate opening and closing middle C

*pp*      *mp*      *f*      *mp*      *mf*

*sub. ff*      *sub. ff*

55

Finger Middle E and alternate opening and closing low C

Finger High A and alternate opening and closing all right hand keys

Finger Middle G (w/ 8ve key) and Low B key, and alternate opening and closing Low C key

Finger Side D (no 8ve key) and alternate opening and closing middle C

Timbral Trill - Finger middle finger F sharp (w/ 8ve key) and alternate opening and closing the low D key

*p*      *f*      *sfp*      *n*      *mp*      *n*      *mf*

*sfz*      *n < mp*      *n*      *mf > p*

*sub. ff*      *n < mp*      *n*      *mp*      *n*      *mf > p*

*sub. ff*      *mp*      *n*      *mp*      *n*      *mf > p*

*mf > p*

*mf > p*

## Ancient Machines - Full Score (Transposed)

64

*p sub. ff* *fff* *fp* *mf* *p* *p* *mf* *p f*

*sub. ff* *fff* *p* *mf* *p* *mf* *f*

*sub. ff* *fff* *mp* *tr* *mf* *tr* *mf* *f*

*sub. ff* *fff* *mp* *tr* *mf* *tr* *mf* *f*

74

*tr* *ff* *sub. mf* *ff* *sub. mf* *tr* *mf* *sub. mf*

*tr* *ff* *sub. mf* *tr* *mf* *tr*

*tr* *ff* *sub. mf* *tr* *mf* *tr*

Ancient Machines - Full Score (Transposed)

7

80

84

86

87

fff

fff

fff

cresc. molto

cresc. molto 3

cresc. molto 3

fl. tongue or growl

cresc. molto

## Ancient Machines - Full Score (Transposed)

Musical score for "Ancient Machines" featuring two staves of music. The score is transposed, indicated by key signatures of F# major and C major.

**Measure 92:** The top staff consists of four measures in common time. The first measure shows eighth-note pairs connected by slurs. The second measure shows eighth-note pairs with grace notes. The third measure shows eighth-note pairs with grace notes. The fourth measure shows eighth-note pairs with grace notes. Measure numbers "3" are placed under the first three measures. The bottom staff consists of four measures in common time. The first measure shows sixteenth-note pairs. The second measure shows sixteenth-note pairs. The third measure shows sixteenth-note pairs. The fourth measure shows sixteenth-note pairs. Measure numbers "3" are placed under the first three measures.

**Measure 95:** The top staff begins with a dynamic of *fff*. It consists of four measures in common time. The first measure shows eighth-note pairs with grace notes. The second measure shows eighth-note pairs with grace notes. The third measure shows eighth-note pairs with grace notes. The fourth measure shows eighth-note pairs with grace notes. The bottom staff begins with a dynamic of *fff*. It consists of four measures in common time. The first measure shows sixteenth-note pairs. The second measure shows sixteenth-note pairs. The third measure shows sixteenth-note pairs. The fourth measure shows sixteenth-note pairs. The dynamics *mp* and *pp* are used throughout the bottom staff.

## II. Su Song's Cosmic Engine

## Mechanical $\bullet = 126$

Musical score for four staves:

- Staff 1:** Four measures of silence followed by a measure with a dotted quarter note and a vertical stroke. Dynamic: ***pp sempre secco***.
- Staff 2:** Measures 1-3: Silence. Measure 4: A dotted quarter note and a vertical stroke. Dynamic: ***pp sempre secco***. Measure 5: A vertical stroke. Dynamic: ***slap tongue*** (indicated by a small circle with a dot). Measure 6: A dotted quarter note and a vertical stroke. Dynamic: ***mp***. Measure 7: A vertical stroke. Dynamic: ***p***.
- Staff 3:** Measures 1-3: Silence. Measures 4-5: A dotted quarter note and a vertical stroke. Dynamic: ***pp sempre secco***. Measures 6-7: A vertical stroke. Dynamic: ***p***. Measure 8: A vertical stroke. Dynamic: ***slap tongue*** (indicated by a small circle with a dot).
- Staff 4:** Measures 1-3: A dotted quarter note and a vertical stroke. Dynamic: ***pp sempre secco***. Measures 4-5: Silence. Measure 6: A dotted quarter note and a vertical stroke. Dynamic: ***p***. Measure 7: A vertical stroke. Dynamic: ***mp***.

15

17

15

*f*

*f jagged*

*f mf jagged*

*f*

21

(slap tongue)

*mf molto leg.*

*ff*

*mf*

*ff*

*(slap tongue)*

*f*

*ff*

Musical score for piano, page 26, featuring four staves of music. The score includes dynamic markings such as *f jagged*, *mf*, *f*, *3*, *f*, *mf*, *tr*, *sfz*, *sfz*, *f*, and *3*. The music consists of six measures per staff, with the first measure of each staff being longer than the subsequent ones.

A musical score for piano, featuring four staves of music. The score consists of two systems of four measures each. Measure 31 starts with a treble clef, a key signature of one sharp, and a common time signature. Measures 31 through 34 are separated by vertical bar lines. Measure 31 contains eighth-note patterns with slurs and dynamic markings like '3' and 'v'. Measure 32 begins with a bass clef and continues the eighth-note patterns. Measure 33 features sixteenth-note patterns with slurs and dynamic markings like '3' and 'v'. Measure 34 begins with a treble clef and concludes with a dynamic marking 'mf' at the end of the staff.

35

3

*f*

*mf*

40

41

*p* *legato*

*p* *legato*

*p*

*mp*

**48** Dream-like  $\text{♩} = 63$

48

*pp contemplative*

*n*

*pp contemplative*

**57**

57

*p confident*

*p confident*

*p confident*

*p confident*

63

65

*mf*

*mf*

*mf*

*mf*

rit.

68

*f*

*f*

*f*

*f*

**73** **Tempo I** ( $\text{♩} = 126$ )

73

ppp

ppp

-

*pp sempre secco*

*pp sempre secco*

80

83

n

(slap tongue)

mp

*p sempre secco*

*mp cresc.*

(multiphonic)

-

*p*

*mp cresc.*

(multiphonic)

(slap tongue)

*mp*

*p*

*mp cresc.*

(multiphonic)

*mp cresc.*

*p*

*mp cresc.*

## Ancient Machines - Full Score (Transposed)

86

(slap tongue)

*mf cresc.*

*mf cresc.*

*mf cresc.*

*mf cresc.*

91

*f*   *sfz*   *sfz*   *fp*   *mf*   *sfz*   *sfz*

*f*

*sub. mf*   *sfz*   *sfz*   *sfz*

*f*

*sub. mf*   *sfz*   *sfz*   *sfz*

96

**99** Energetic  $\text{♩} = 160$

ff  
ff  
sfffz  
mf

ff  
sfffz  
f—mf—

ff  
mf—

101

f—mf—

mf

105

*f*

*cresc. poco a poco*

*molto leg.*

*cresc. poco a poco*

*cresc. poco a poco*

*f*

*f*

*f*

*f*

*molto leg.*

*cresc. poco a poco*

109

*f*

*f*

*f*

*f*

113

114

*ff*

*ff*

*ff*

This musical score page contains four staves of music. The first staff begins with a melodic line, followed by three staves of rhythmic patterns. The dynamic marking *ff* appears twice, once above the second staff and once above the fourth staff. The measure number 114 is centered above the staff.

117

This musical score page contains four staves of music. The first staff begins with a melodic line, followed by three staves of rhythmic patterns. The measure number 117 is centered above the staff.

## Ancient Machines - Full Score (Transposed)

121

122

*mf*

*sub. mf*

*3*

*mf*

*molto rit.*

*ff*

*march-like*

*3*

*ff march-like*

*ff march-like*

*ff march-like*

*sfffz*

*sfffz*

*sfffz*

*sfffz*