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Title

Mars in Retrograde

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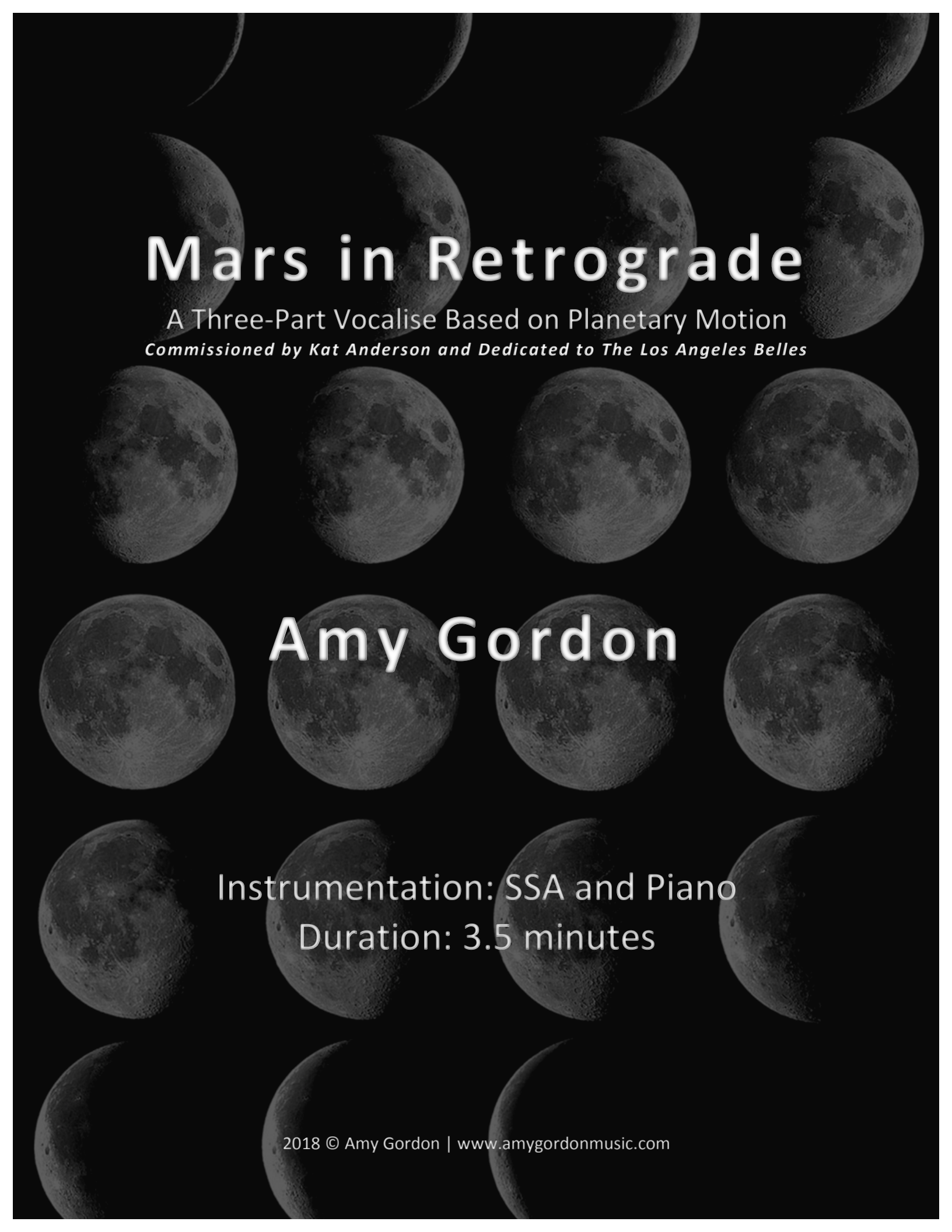
<https://escholarship.org/uc/item/75q6t7z8>

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The background of the entire page is a repeating pattern of various moon phases, including crescents, gibbous moons, and full moons, all in shades of gray against a black background.

Mars in Retrograde

A Three-Part Vocalise Based on Planetary Motion
Commissioned by Kat Anderson and Dedicated to The Los Angeles Belles

Amy Gordon

Instrumentation: SSA and Piano
Duration: 3.5 minutes

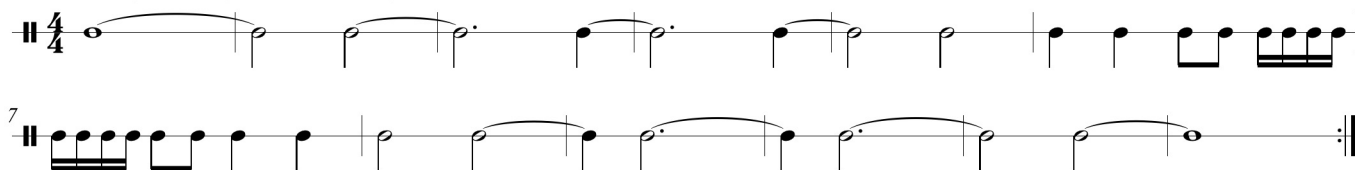
Mars in Retrograde, commissioned by Kat Anderson and dedicated to The Los Angeles Belles, is a 3-part vocalise for SSA and Piano based on planetary motion and gravitational orbits. The voices represent the orbits of the planets (S1 as Venus, S2 as Earth, and Alto as Mars) around the sun, which is represented by the Piano. Each planet (voice) has a distinct repeating rhythmic pattern whose length corresponds to each planet's sidereal period (how long it takes the planet to fully orbit around the sun). The repeating rhythmic pattern uses the musical technique of *isorhythm*, where a repeating rhythmic pattern (called the *talea*) is combined with separate pitch material (called the *color*). Venus's sidereal period is roughly .616 Earth years, corresponding to a 7.5 measure talea. Earth's sidereal period is 1 Earth year, corresponding to a 12 measure talea (based on the 12 months in a year). Mar's sidereal period is roughly 1.9 Earth years, corresponding to a 22.75 measure talea. Venus', Earth's, and Mar's taleas are shown below. The rhythmic activity increases until the mid-point of each talea, after which the rhythmic value decreases again. This represents how planets increase in speed as they approach their closest point to the sun (*perihelion*) and decrease in speed as they approach the farthest point from the sun (*aphelion*). The end of each talea is marked by a , in the score. *The talea of each of the planets is below.*

The entire piece is tuned to the fundamental of Bb, as the lowest recorded note in the universe is a black hole that vibrates at a Bb 57 octaves below Middle C. The piece exclusively uses the Bb Lydian Dominant scale, also referred to as the acoustic scale, which can be created by assembling the first 12 partials of the overtone series based on the fundamental of Bb.

Talea of Venus (~ 7.5 measures)



Talea of Earth (12 measures)



Talea of Mars (~ 22.75 measures)



About the composer: Amy Gordon is an active composer, arranger, songwriter, and vocalist based in Los Angeles, CA. As a choral composer, she has worked with and been commissioned by numerous choirs, including being the composer-in-residence for Nova Vocal Ensemble. She has also scored numerous films and webcasts. She has a BA in Composition from Loyola Marymount University and an MM in Composition from California State University, Long Beach.

Mars in Retrograde

Amy Gordon

Commissioned by Kat Anderson and dedicated to The Los Angeles Belles

Spaciously ♩ = 86

Piano

ff
BANG!

Pedal very liberally

5

Pno.

mp
f

9

S 1

Ooh

p gradually open from ooh to ah ***
breathe where necessary
poco a poco cresc.

S 2

Ooh

p gradually open from ooh to ah ***
breathe where necessary
poco a poco cresc.

A

Ooh

p gradually open from ooh to ah ***
breathe where necessary
poco a poco cresc.

f gradually close from ah to ooh
poco a poco dim.

Pno.

mp
f

(Sub)-

*** The piece uses simple vowels such as oohs and ahs, but vocalists are free to experiment with different vowels and overtones as the parts increase and decrease in rhythmic speed.

Mars in Retrograde

13

S 1

S 2

A

Pno.

sim.

(8^{vb})

p *gradually open from ooh to ah*
p poco a poco cresc.

(ooh)

Ooh

f *gradually close from ah to ooh*
f poco a poco dim.

(ah)

17

S 1

S 2

A

Pno.

p *gradually close from ah to ooh*
f poco a poco dim.

(ah)

(ooh)

f *gradually close from ah to ooh*
f poco a poco dim.

(ah)

Mars in Retrograde

3

21

p *gradually open from ooh to ah*
poco a poco cresc.

S 1

(ooh)

Ooh

S 2

Ooh

A

Pno.

(8th)

25

f *gradually close from ah to ooh*
poco a poco dim.

S 1

(ah)

f *gradually close from ah to ooh*
poco a poco dim.

S 2

(ah)

A

Pno.

(8th)

Mars in Retrograde

29

S 1

S 2

A

Pno.

(8vb)

p

(ooh)

p

(ooh)

p

(ooh)

33

Pno.

mf loco

3

3

3

8vb

gradually open from ooh to ah
breathe where necessary

37

S 1

Ooh

(ah)

mp poco a poco cresc.

gradually open from ooh to ah
breathe where necessary

S 2

Ooh

mp poco a poco cresc.

gradually open from ooh to ah
breathe where necessary

A

Ooh

mp poco a poco cresc.

gradually close from ah to ooh

f poco a poco dim.

Pno.

mp

f

(8vb)

Mars in Retrograde

5

41

S 1

S 2

A

Pno.

sim.

mp

mp poco a poco cresc.

f gradually close from ah to ooh
poco a poco dim.

(ooh)

Ooh

(ah)

(8^{vb})

45

S 1

S 2

A

Pno.

gradually open from ooh to ah

mp

f gradually close from ah to ooh
poco a poco dim.

(ah)

(ooh)

(ah)

(8^{vb})

Mars in Retrograde

49

S 1

p gradually open from ooh to ah
poco a poco cresc.

(ooh)

Ooh

S 2

Ooh

A

Pno.

(8vb)

53

S 1

mf gradually close from ah to ooh
poco a poco dim.

(ah)

S 2

mf gradually close from ah to ooh
poco a poco dim.

(ah)

A

Pno.

(8vb)

Mars in Retrograde

7

57

p

S 1

(ooh)

S 2

(ooh)

A

p

(ooh)

Pno.

(8vb)-----

Spinning Forward ♩. = 66

61

mp

S 1

Ah

mp

S 2

Ah

mp

A

Ah

Pno.

mp

(8vb)-----

Mars in Retrograde

65

S 1

S 2

A

Pno.

p

p

p

mp

3

3

2

2

69

S 1

S 2

A

Pno.

pp

pp

pp

p

Oh

Oh

Oh

3

3

3

3

8^{vb}

8^{vb}

Mars in Retrograde

9

73

pp *p* *ppp*

S 1

Ooh

S 2

Ooh

A

Ooh

Pno.

ppp

Sua

S^{va}