



MU ARAE

BY CORAL DOUGLAS

2021

PROGRAM NOTE

Mu Arae is a Sunlike yellow-orange star located 50 light years away from Earth, within the constellation Ara. The star has a planetary system with four known extrasolar planets, named Quijote, Dulcinea, Rocinante and Sancho.

PERFORMANCE NOTES

This piece has been prepared for the following ensemble: fl, harp, pf, & vl.*

Playing techniques continue until they are cancelled by another technique or there is a change in notehead style.

TECHNIQUES AND ABBREVIATIONS

ord: ordinario. Cancels sul pont and sul tasto.

air noise (violin): To bow on muted strings with light pressure.

circular bowing (violin): To bow in a circular motion across the string.

sp (violin): sul ponticello. To bow near the bridge.

st (violin): sul tasto. To bow above the fingerboard.

st air noise (violin): sul tasto air noise. To play sul tasto lightly, muted.

op (violin): overpressure. To bow very slowly, with enough pressure to distort the sound.

scratch tones (violin): To bow slowly, while applying very heavy pressure to the bow. Scratch tones are accompanied by diagrams denoting the intensity of the pressure and bow speed, so that they vary with time.

air noise (flute): To blow across the instrument without making a pitched sound.

fluttersong (flute): To roll the tip of the tongue as rapidly as possible. This is done by performing an isolated alveolar trill.

lip gliss (flute): To pitch bend by rolling the headjoint outwards or inwards.

jet whistle (flute): Produced by blowing hard down the embouchure hole, producing a pitched sound which contains many harmonics.

key clicks (flute): To click the keys of the flute without blowing across the embouchure.

ram/tongue ram (flute): To abruptly close the embouchure hole with the tongue, forcefully stopping the airflow.

W.T. (flute): whistle tone. To softly play the flute with little air, producing a harmonic.

string buzz (harp): To pluck a string with so much force that it clashes against the next string creating a buzzing sound.

bisbigliando (harp): To play with both hands by plucking the interval or chord, one note after the other, rapidly, lightly and continuously.

hit strings (harp): To hit the strings with the palm of the hand.

scrape strings (harp): To scrape vertically, upwards with the fingernail.

thunder gliss (harp): To play a fast and loud glissando in the left hand on the lowest strings of the harp. The strings are played forcefully so that they rattle against one another.

Other techniques used: tremolo; glissando; preparations with newspaper; sweeping the inside of the piano, on the strings, with a mallet.

* Additional objects required: pieces of newspaper, a soft yarn mallet, and a weight to keep the piano's sustain pedal depressed

Mu Arae

Coral Douglas

♩ = 60

The musical score is for the piece "Mu Arae" by Coral Douglas, in 4/4 time. The tempo is marked as ♩ = 60. The score is divided into four staves: Flute, Harp, Piano, and Violin.

- Flute:** The first staff contains the flute part. It begins with a series of five key clicks marked with asterisks (*). This is followed by a melodic line with a slur over five notes, then a measure with a natural note and a flat note, and another slur over three notes. The piece concludes with a slur over five key clicks. Dynamics include *p* and *f*. Performance instructions include "key clicks", "ord.", and "3".
- Harp:** The second staff shows the harp part. It starts with a "Prepare with newspaper" instruction and a single note. The rest of the staff is empty.
- Piano:** The third and fourth staves show the piano accompaniment. The right hand has a series of chords, with a slur over eight notes and a 3:2 ratio. The left hand has a single note with a sharp sign. The piano part concludes with a series of notes and a final five-note phrase. Dynamics include *pp* and *f*. Performance instructions include "8", "3:2", and "5".
- Violin:** The fifth staff is empty, indicating the violin part is not present in this score.

Fl. (aeolian) air sounds 3 pitched 3 5 3 breathy

Hrp. bisbigl. sim. p mf

Pno. mallet gliss on strings p mf

Vln.

p *mf* *p* *mf*

red.

Detailed description: This page of a musical score features four staves. The Flute staff (Fl.) begins with a treble clef and a key signature of one sharp (F#). It contains a melodic line with a triplet of eighth notes, a quarter note, a half note, and a quarter note, followed by a quarter rest. The next measure has a quarter note, a half note, and a quarter note. The third measure has a quarter note, a half note, and a quarter note. The fourth measure has a quarter note, a half note, and a quarter note. The fifth measure has a quarter note, a half note, and a quarter note. The sixth measure has a quarter note, a half note, and a quarter note. The seventh measure has a quarter note, a half note, and a quarter note. The eighth measure has a quarter note, a half note, and a quarter note. The ninth measure has a quarter note, a half note, and a quarter note. The tenth measure has a quarter note, a half note, and a quarter note. The Harp staff (Hrp.) has a grand staff with treble and bass clefs. It features a 'bisbigl.' (pizzicato) section with a half note chord in the treble and a half note chord in the bass. This is followed by a 'sim.' (sustained) section with a half note chord in the treble and a half note chord in the bass. The section concludes with a half note chord in the treble and a half note chord in the bass. The Piano staff (Pno.) has a grand staff with treble and bass clefs. It features a 'mallet gliss on strings' section with a half note chord in the treble and a half note chord in the bass. The Violin staff (Vln.) has a treble clef and contains a half note chord in the treble and a half note chord in the bass. Dynamics include *p* (piano) and *mf* (mezzo-forte). Performance instructions include 'aeolian) air sounds', 'pitched', 'breathy', 'bisbigl.', 'sim.', and 'mallet gliss on strings'. A 'red.' (ritardando) marking is present in the Piano staff.

5

Fl.

3

pp *ff*

Hrp.

ord.

remove preparation

ppp

Pno.

p *f*

red. 3 5

Vln.

sfpp *f*

5" 3

5" 5"

5" 5"

5" 5"

♩ = 72

8

Fl. *fl.* harmonic *f* *p* *mf* *p* *ff* *p_{sub.}*

Hrp. thunder gliss. *f* *ff* *sim.* *p* *ff* bisbigl. *f* *ff*

Pno. *mf* *ff* Red. Red.

Vln. *op* scratch tone *f* *ff* *p_{sub.}* ord gliss in and out of unison *op* *ff*

♩ = 60

11

Fl.

(aeolian) air sounds

ppp

mp

Hrp.

Prepare with newspaper

p

5

sfpp

n

Pno.

mallet gliss on strings

mp

pp

mf

mallet gliss around range

3

Red.

Red.

Vln.

gliss in and out of unison

p_{sub.}

n

ppp

p

14

Fl. *ppp* *mp* *p* *mf* *lip gliss.*

Hrp.

Pno. *(Red.)* *scratch* *5* *V* *V* *sp* *3*

Vln. *ppp* *mf*

remove preparation

Detailed description of the musical score: The score is for measures 14-16. The Flute (Fl.) part begins at measure 14 with a *ppp* dynamic, followed by a crescendo to *mp* at measure 15, then a decrescendo to *p* at measure 16, and finally a crescendo to *mf* at measure 17. A *lip gliss.* instruction is written above the notes in measure 15. The Harp (Hrp.) and Piano (Pno.) parts are mostly silent, with some preparation marks (horizontal lines) in measures 14-16. The Violin (Vln.) part starts at measure 14 with a *ppp* dynamic. In measure 15, there is a *scratch* effect indicated by a jagged line above the staff, with a *5* and *V* below it. In measure 16, there is another *scratch* effect with a *5* and *V* below it. In measure 17, the violin plays a triplet of notes marked *sp* and *3*.

♩ = 90

17

Fl.

Musical notation for the Flute part, starting at measure 17. It features a triplet of eighth notes marked *pp* (pianissimo) and a phrase of eighth notes marked *fp* (fortissimo piano).

Hrp.

Musical notation for the Harp part. The upper staff contains chords and a quintuplet marked *pp* and *mf*. The lower staff includes a triplet labeled "string buzz" and a quintuplet, with a dynamic range from *p* to *ff*. A measure rest of 8 measures is indicated by a dashed line.

Pno.

Musical notation for the Piano part, featuring sustained chords. Dynamics range from *mf* to *ff*. A *ped.* (pedal) marking is present under the first chord.

Vln.

Musical notation for the Violin part. It starts with a phrase marked *p* and *ff*, followed by a phrase marked *pp* and *ff* with a triplet of eighth notes.

19

Fl.

ord

jet

f

p

f

mp

f

3

5

f

mf

Hrp.

pp

mf

pp

mf

Pno.

pp

mf

pp

mf

p

Red.

Vln.

sp

5

3

gliss in and out of unison

*p*_{sub.}

n

♩ = 60

21

Fl. *p* key clicks *mf* 5 breathy 3 key clicks (aeolian) air noise 3

Hrp. *mp* bisbigl. *pp*

Pno. *sffz* *mp* *ppp* 3 3

Vln. *pp* *p* sp 3 5 5 3

23 key clicks 5

Fl. *p* *mf* harmonic breathy ord 3 harmonic ord

Hrp. *ppp* 5 5 5 *mf* 5

Pno. mallet gliss on strings *p* *mf* *Red.*

Vln. 3 5 *pp* scratch 3 3 *f*

Detailed description: This page of a musical score (page 10) features four staves. The Flute staff begins with 'key clicks' marked with asterisks and a bracket of 5, followed by a melodic line with 'breathy' and 'ord' markings, and 'harmonic' markings above. The Harp staff has a treble clef with a descending line of notes and a bass clef with chords, marked with 'ppp' and 'mf'. The Piano staff shows a mallet glissando on the strings, with dynamics 'p' and 'mf' and a 'Red.' (Reduction) marking. The Violin staff starts with a triplet of notes, followed by a line with dynamics 'pp' and 'f', and includes a 'scratch' section with a jagged waveform and triplet markings.

25

key clicks 5

breathy harmonic (aeolian) air noise

Fl. *f* *p*

Hrp. *ppp* *mf*

Pno. *p* *mf* *f* *pp* *Red.*

Vln. *p* *f* *p*

Detailed description of the musical score: The score is for measures 25-26. The Flute (Fl.) part begins with a forte (f) dynamic, playing a quarter note followed by a series of 'key clicks' marked with asterisks and a fermata over a five-measure rest. It then transitions to a 'breathy harmonic' section with a half note and a quarter note, both marked with a breath mark and a fermata. The Harp (Hrp.) part features a continuous arpeggiated texture, starting at ppp and increasing to mf. The Piano (Pno.) part has a complex texture with chords and triplets, marked with dynamics p, mf, and f. The Violin (Vln.) part consists of a long note with a dynamic contour from p to f to p. A large black silhouette is positioned at the bottom of the page.

27

Fl. *f* jet ord 3:2 *p* *f* jet ord jet jet 5 3

Hrp. *ppp* 5 5 5 5 5 5 5 5 *f*

Pno. *ppp sub.* 3 5 5 5 5 5 5 5 *f*

Vln. *solo* sp 3 *scratch tone* Red. Red. sp op sp op op *p* *f* 5 *p* *f* 3 *p* *ff*

Detailed description of the musical score: The score is for measures 27-32. The Flute part (Fl.) starts with a dynamic of *f* and includes articulations like 'jet' and 'ord'. It features a 3:2 ratio and a five-measure phrase. The Harp (Hrp.) part begins with *ppp* and uses a five-finger pattern (5) throughout, ending with *f*. The Piano (Pno.) part starts with *ppp sub.* and uses a three-finger pattern (3) and a five-finger pattern (5), ending with *f*. The Violin (Vln.) part includes a 'solo' section with a 'scratch tone' (represented by a thick black bar), and various articulations like 'sp' (sforzando) and 'op' (accrescendo). Dynamics range from *p* to *ff*.

♩ = 120

29

Fl.

sfz *mf* *f* *mf*

jet

3

tongue ram

harmonic

ord

5

Hrp.

p *f*

3

Prepare with newspaper

Pno.

sfz *mf* *mf* *mf*

5

3

5

3

3

Vln.

ord

scratch

mf *ff*

5

Musical score for Flute (Fl.), Harp (Hrp.), Piano (Pno.), and Violin (Vln.).

Fl.: Measure 31 starts with a dynamic of *ff*. The flute plays a five-measure phrase with a slur and accents. This is followed by a *ram* effect (indicated by a circled X) and a *lip gliss.* (indicated by a slur over a whole note). The piece concludes with another five-measure phrase. Dynamics range from *ff* to *mf*.

Hrp.: The harp part is mostly silent in the first two measures. It begins in the third measure with a *sffz* dynamic and a *pull out newspaper* effect (indicated by a vertical line with a slur). The dynamic increases to *fff* by the end of the section. The bass line features triplet rhythms and a *scrape* effect (indicated by a vertical line with a slur).

Pno.: The piano part features a five-measure phrase with a slur and accents. Dynamics include *ff*, *mf*, and *fff*. The bass line includes a *Red.* (Reduction) marking and a triplet. The right hand includes a 3:2 ratio marking and a triplet.

Vln.: The violin part starts with an *ord* (order) marking. It features a five-measure phrase with a slur and accents, followed by a triplet. Dynamics range from *p* (piano) to *fff* (fortississimo).

33

Fl.

ram

3

3

3

p

Hrp.

Prepare with newspaper

Pno.

5

p

5

sfz

Red.

Red.

Vln.

scratch

ord

mf

scratch

sfz

35

Fl.

sffz

mf *ff*

pull out newspaper

smack strings

sim.

sffz *fff* *mf* *fff*

scrape

sim.

ff

(Red.) Red.

ord

scratch

fp *ff*

37

Fl. *mp* *ff* jet ord jet ram

Hrp. *mp* *f* Prepare with newspaper

Pno. *mf* mallet gliss around range

Vln. *mf* *ff* ord 5 bow in circles scratch sp 5 *senza solo*

39

Fl.

p *fff*

Hrp.

fff *fff*

Pno.

fff *fff*

Vln.

p *fff*

pull out newspaper

smack strings

mallet hit

scratch

5 3 3

41

Fl.

mf

p

f

p

5

3

3

3

3"

19

Hrp.

fff

smack strings

f

f

3"

Pno.

depress pedal until sound is imperceptible

p

pp

ff

3:2

8

3"

(Ped.)

f

f

p

mf

f

p

mf

f

3"

Vln.

♩ = 60

45

key clicks 5 ord. key clicks 3 ord. 3 air noise (let pitched harmonics sound at random)

Fl. *p* *ff*

Hrp. *pp* *mf* *p*

Pno. *mp* *pp*

Vln. *ppp* *sp* *ff* scratch

49

Fl. *sim.*
n *ff*

Hrp. *mf* *string buzz* *sim.* *string buzz* *3* *thunder gliss.* *5* *3* *ff*

Pno. *mf* *5* *5* *p*

Vln. *air noise (mute string)*
n *mf*

52

Fl. *p* tap *ppp* air noise (let pitched harmonics sound at random) *p*

Hrp. *ppp* *f* string buzz *ff* sim.

Pno. mallet gliss on strings within these ranges *mf* *pp*

Vln. *ppp* sp circle bow sp air noise (mute string)

56

Fl. air noise (no pitch)

pp *n*

Hrp. *ff* scrape slowly

Pno.

Vln. sp air noise

n

Detailed description of the musical score: The score is for four instruments: Flute (Fl.), Harp (Hrp.), Piano (Pno.), and Violin (Vln.). The Flute part starts with a long note on a ledger line, marked with a breath mark and a dynamic of *pp*. The Harp part has a long note on a ledger line, marked with a dynamic of *ff* and the instruction 'scrape slowly'. The Piano part has a long note on a ledger line. The Violin part has a long note on a ledger line, marked with a dynamic of *sp* and a breath mark. A fermata is present at the end of the Violin part. The score is numbered 56 at the beginning and 23 at the top right.

Flute

Mu Arae

Coral Douglas

♩ = 60

key clicks 5 ord. key clicks 3 ord. 3 key clicks 5

p

3 (aeolian) air sounds 3 pitched 3 breathy 3 3

p *mf*

6 3 5"

pp *ff*

♩ = 72

8 fluttertongue harmonic

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

♩ = 60

11 (aeolian) air sounds lip gliss.

ppp *mp* *ppp* *mp* *p* *mf*

2 $\text{♩} = 90$

17

pp *fp*

19

f *p* *f* *mp* *f* *f* *mf*

21 $\text{♩} = 60$

p *mf*

23

p *mf* *f* *p sub.*

26

f *p* *f*

♩ = 120

28

jet ord jet jet ord jet ord

p *f* *sfz* *mf*

30

tongue ram harmonic ord ram ord

f *mf* *ff* *mf* *ff*

33

ram ord

p

35

jet ord jet ord

sffz *mf* *ff* *mp*

38

ram ord ram ord

ff *p* *fff*

4
41

mf *p* *f*

45 $\text{♩} = 60$

key clicks 5 ord key clicks 3 ord 3

p

47 air noise (let pitched harmonics sound at random)

p *ff* *n* *ff*

53

key clicks 5 5 air noise (let pitched harmonics sound at random)

p *ppp* *p*

56

air noise (no pitch)

pp *n*

Harp

Mu Arae

Coral Douglas

♩ = 60

prepare with newspaper

bisbigl. sim. ord

p ————— *mf*

1 2 3 4 5

1 2 3 4 5

1 2 3 4 5

6

5" ♩ = 72

remove preparation

thunder gliss.

ppp

f ————— *ff*

string buzz sim.

1 2 3 4 5

1 2 3 4 5

8

9

♩ = 60

bisbigl. prepare

p ————— *ff*

5

1 2 3 4 5

1 2 3 4 5

8

f ————— *ff*

2

remove preparation

♩ = 90

13

p

5

3

sfpp \rightarrow *n*

3

string buzz

3

5

8

18

pp \rightarrow *mf*

5

pp \rightarrow *mf*

5

pp \rightarrow *mf*

5

♩ = 60

21

bisbigl.

mp \rightarrow *pp*

5

23

ppp *mf*

This system contains measures 23 and 24. The treble clef staff features a melodic line with five-fingered patterns (marked '5') and various accidentals (flats and sharps). The bass clef staff provides harmonic accompaniment with chords and some melodic fragments. A dynamic marking of *ppp* is present at the start of measure 23, and *mf* is marked at the beginning of measure 24.

25

ppp *mf*

This system contains measures 25 and 26. The treble clef staff continues the melodic line with five-fingered patterns (marked '5'). The bass clef staff features a rhythmic accompaniment with chords. A dynamic marking of *ppp* is present at the start of measure 25, and *mf* is marked at the beginning of measure 26.

27

ppp *f*

This system contains measures 27 and 28. The treble clef staff features a melodic line with five-fingered patterns (marked '5') and a wide intervallic leap in measure 28. The bass clef staff provides harmonic accompaniment. A dynamic marking of *ppp* is present at the start of measure 27, and *f* is marked at the beginning of measure 28.

4

$\text{♩} = 120$

29

prepare

pull out newspaper

p ————— *f*

sfz ————— *fff*

scrape

33

prepare

pull out newspaper

slap strings sim.

sfz ————— *fff*

mf ————— *fff*

scrape

sim.

37

prepare

mp ————— *f*

scrape

5

8

pull out newspaper

40

hit strings

5

hit strings

3

3"

sfz *fff* *f*

$\text{♩} = 60$

45

pp *mf* *p*

5

3

49

thunder gliss.

string buzz

3

5

3

3

mf *ff*

6

52

5

ppp

f_{sub.}

55

ff

ff

ff

2

2

scrape slowly

Piano

Mu Arae

Coral Douglas

8

$\text{♩} = 60$

3:2

pp

f

$\text{♩} + \text{♩}.$

5

Red.

3

mallet gliss on strings

p — *mf*

p — *f*

3 5

3 5

5"

Red.

8

$\text{♩} = 72$

mf — *ff*

Red.

2 $\text{♩} = 60$

11 mallet gliss on strings

mp *pp* *mf*

mallet gliss around range

3

Red. *Red.*

$\text{♩} = 90$

14

mf *ff*

2 2

Red. *Red.*

18

pp *mf* *pp* *mf* *p*_{sub.}

Red. *Red.* *Red.*

♩ = 60

21

sfz *mp* *ppp*

mallet gliss on strings

p *mf*

Red. _____

25

p *mf* *f sub.*

Red. _____

27

ppp sub. *f*

Red. _____ Red. _____

♩ = 120

29

sfz p mf

5 3 5

Red.

Detailed description: This system covers measures 29 and 30. The right hand starts with a quarter rest, followed by a quarter note G4, then a quarter note F4. A slur covers a quarter note E4, a quarter note D4, and a quarter note C4, with a '5' below it. A triplet of quarter notes (B3, A3, G3) follows. A slur covers a quarter note F3, a quarter note E3, and a quarter note D3, with a '3' above it. A slur covers a quarter note C3, a quarter note B2, and a quarter note A2, with a '5' below it. The left hand has a whole note chord of G2, B1, and D2. A slur covers a quarter note C3, a quarter note B2, and a quarter note A2, with a '3' below it. A slur covers a quarter note G2, a quarter note F2, and a quarter note E2, with a '3' below it. Dynamics include sfz, p, and mf. A 'Red.' marking is present below the bass staff.

31

ff mf fff

3 3 3

Red.

Detailed description: This system covers measures 31 and 32. The right hand starts with a quarter note G4, a quarter note F4, and a quarter note E4, each with a 'v' above it. A slur covers a quarter note D4, a quarter note C4, and a quarter note B3, with a '3' below it. A slur covers a quarter note A3, a quarter note G3, and a quarter note F3, with a '3' below it. A slur covers a quarter note E3, a quarter note D3, and a quarter note C3, with a '3' below it. The left hand has a whole note chord of G2, B1, and D2. A slur covers a quarter note C3, a quarter note B2, and a quarter note A2, with a '3' below it. A slur covers a quarter note G2, a quarter note F2, and a quarter note E2, with a '3' below it. Dynamics include ff, mf, and fff. A 'Red.' marking is present below the bass staff.

33

p sfz ff

5 5

Red.

Detailed description: This system covers measures 33 and 34. The right hand starts with a quarter note G4, a quarter note F4, and a quarter note E4, each with a 'v' above it. A slur covers a quarter note D4, a quarter note C4, and a quarter note B3, with a '5' below it. A slur covers a quarter note A3, a quarter note G3, and a quarter note F3, with a '5' below it. A slur covers a quarter note E3, a quarter note D3, and a quarter note C3, with a '5' below it. The left hand has a whole note chord of G2, B1, and D2. A slur covers a quarter note C3, a quarter note B2, and a quarter note A2, with a '3' below it. A slur covers a quarter note G2, a quarter note F2, and a quarter note E2, with a '3' below it. Dynamics include p, sfz, and ff. A 'Red.' marking is present below the bass staff.

37

mf ————— fff

mallet gliss around range

mallet hit

ped.

41

p

pp ————— ff

depress pedal until sound is imperceptible

3:2

8

3"

(ped.)

f

ped.

♩ = 60

45

mp

pp

5

3

3

2

2

6

Musical score for measures 49-52. Measure 49 starts with a treble clef and a 7-measure rest. The piano part begins with a *mf* dynamic. Measure 50 features a descending line with a fingering of 5. Measure 51 has a *p* dynamic. Measure 52 contains two double bar lines with a '2' above and below the staff, indicating a second ending.

53

Musical score for measures 53-55. Measure 53 has a treble clef and a whole rest. The piano part has a *mf* dynamic. Measure 54 has a *pp* dynamic. Measure 55 contains two double bar lines with a '5' above and below the staff, indicating a fifth ending. The instruction "mallet gliss on strings within these ranges" is written above the piano staff.

Violin

Mu Arae

Coral Douglas

$\text{♩} = 60$

4

sfpp *f*

$\text{♩} = 72$

8

op

scratch tone

3 ord

gliss in and out of unison

op

f *ff* *p_{sub.}* *ff*

$\text{♩} = 60$

11

5

3

gliss in and out of unison

p_{sub.} *n*

13

5

scratch

5

V V

sp

3

ppp *p* *ppp* *mf*

$\text{♩} = 90$

17

ord

op

sp

op

3

sp

5

3

gliss in and out of unison

p *ff* *pp* *ff* *p_{sub.}* *n*

2 $\text{♩} = 60$

21 *sp* *pp* *p*

23 *pp* *f* *p* *f* *p*

27 *solo* *sp* *scratch* *op* *sp* *op* *sp* *op* *pp* *f* *p* *f* *p* *ff*

29 $\text{♩} = 120$ *scratch* *ord* *mf* *ff* *p* *ff* *mf* *fff*

33 *scratch* *ord* *mf* *fp* *fp* *ff*

37 *ord* 5 *scratch* *senza solo*

bow in circles *sp* 5

mf *ff*

39 *scratch*

5 3

p *fff*

41 *p* *mf* *f* 3"

♩ = 60

45 *sp* *scratch* *air noise (mute string)*

ppp *ff* *n* *mf*

52 *sp* *circle bow* *sp* *air noise (mute string)* *sp air noise string*

ppp *n*