



# Multiphonics and the Oboe: supplementary notes

1. What is a multiphonic?

2. Different types of multiphonics

2.1 Spectrogram of a consonant multiphonic and a dissonant multiphonic

2.2 Spectrogram of a beating multiphonic

2.3 Spectrogram of an emerging multiphonic

6 S H F W U R J U D I X O W L S K R Q D E V M D R G L ; F D W K R I S E N T \

' L I I H U L Q W U P p ` ð P X O W L S K R Q L F V

4. Commentaries on music extracts:

Roger Redgate

1. What is a multiphonic?

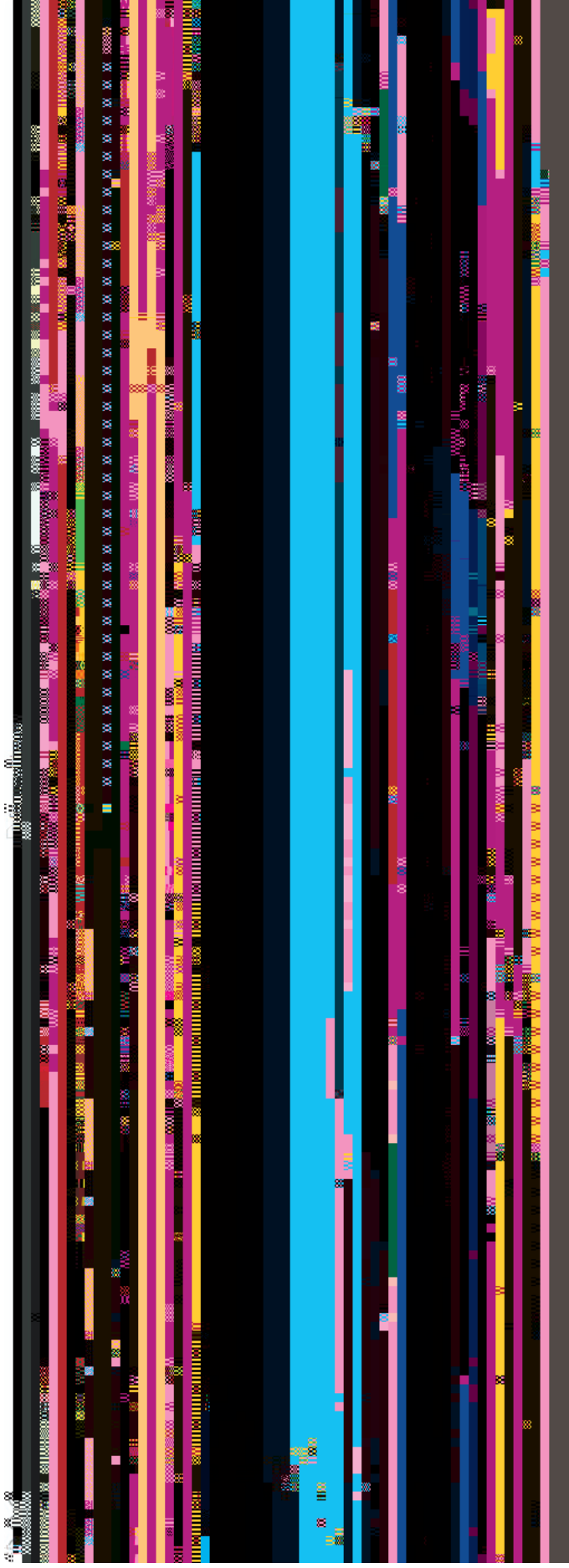
\$ P X O W L S L W R Q L F

## 2. Different types of multiphonics

7 K H L G J C H K D W P X O W L S K R Q L F V

Example 2.1 Spectrogram of a consonant multiphonic and a dissonant multiphonic

\$ V L Q S W F K



Oboe F4

| Partials | F4 | 346  |
|----------|----|------|
| 1        | F4 | 346  |
| 2        | F5 | 692  |
| 3        | C6 | 1050 |
| 4        |    |      |

Oboe multiphonic

consonant

dissonant

Example 2.1 Spectrogram of a consonant multiphonic and a dissonant multiphonic



Oboe B  $\sharp$

Oboe multiphonic

Partials

|            |      |
|------------|------|
| B $\sharp$ | 477  |
| D5         | 593  |
| B $\flat$  | 955  |
| D $\flat$  | 1087 |
| G6         | 1565 |
| A $\flat$  | 1859 |
| C7         | 2059 |
| D $\sharp$ | 2158 |

f ( ) Tj ET BT 0 10 -10 65.3978 453.4054 Tm /TT15.0 1 Tf (E) Tj ET BT 0 12 -12 (

Example 2.3 Spectrogram of an emerging multiphonic (Roxburgh Antares)

Multiphonic 1  
Partials

|    |      |
|----|------|
| F5 | 691  |
| D6 | 1171 |
| A6 | 1651 |
| B6 | 1862 |
| D7 | 2342 |
| F7 | 2823 |
| A7 | 3495 |
| B7 | 3936 |

Multiphonic 2  
Partials  
C5

sounds ~~E#~~, F5, D6

( [ D P S O H 6 S H F W U I R ~~U~~ ~~M~~ B R O W L S ~~K~~ ~~B~~ ~~G~~ ~~D~~ ~~Z~~ ~~A~~ ~~M~~ ~~O~~ ~~L~~ ~~R~~ ~~R~~ ~~G~~ ~~L~~ ~~;~~ ~~F~~ ~~D~~ ~~W~~ ~~K~~ ~~R~~ ~~E~~ ~~S~~ ~~N~~ ~~H~~ \   
 L Q G L ~~F~~ ~~D~~ ~~A~~ ~~L~~ ~~L~~ ~~J~~ ~~G~~ ~~B~~ ~~W~~ ~~W~~ ~~L~~ ~~J~~ ~~Q~~ ~~L~~ ~~S~~ ~~F~~ ~~D~~ ~~D~~ ~~U~~ ~~W~~ ~~R~~ ~~B~~ ~~D~~ ~~F~~ ~~F~~ ~~X~~ ~~O~~ ~~W~~ ~~L~~ ~~S~~ ~~K~~ ~~R~~ ~~Q~~ ~~L~~ ~~F~~





/HIW KDQG WRS ; QJHU NH\  
7KH HNDQGR;S JNHLYHV LJQL ;LQDSWRGXRW XRO LSK;B QDFWDO  
SHUIRUPDIQHUM ZRHF KQL QYR DQHGVRWKNLVDQVKHYDCHURPERLVW  
WREERLMLWUKRQV KQJ RQV KHR OLIWIKQJRUWKH) QWKFHQW/WHNH\  
L DVPDIORZKL DQD VDYHQWHQVKKRQ RSHQLKQW KH IHFQWL IWKSLWFO  
DQRFWBQVHKRWFHGDQK 7KINHLYDOVRSRULVODQVUSHJLVWZHWYKLV\  
DOVR

3

1

10

11

12

Conservatoire system (French)  
¿ Q J H U L Q J V \ V W H P I U R P  
Bruno Bartolozzi  
new sounds for woodwind (1982)

#### 4. Commentaries on music extracts

7 K Y L G H I P S Q P X V R F I D U D Q R E D S S U R D V W W R I P X O W L S K R Q L F V

Roger Redgate's *Ausgangspunkte* employs a sophisticated compositional approach to the use of P X O W L S K R R I S F I Q R W J Z R U N W L O I L C H M H P X I Q L F D O

## 5. Notation strategies

9 L Q N C R E R N C R U M D L W Q R S Q die suggests the number of pitches that should be included in  
DJLY P O W L S K R Q L F

2 F F D V L R F Q D P S G W H M P R U S R H W Q V W U X F W L K R G D U N

Nora Post<sup>13</sup> V X J J H D P R U X H H P X O W K V R L P S E O J L Y L V Q N H \ Z R W I K H D P X W H E G  
± P D N L Q J

6RPH JHQHUDO DGYLFH WR FRPSRVHUV

:KHQVLQHIHUEHQRFXFKHDOH 0DKLWRSWRSLQWRESDDO



## 7. Bibliography

% R R N V D Q G D U W L F O H V

\$ Q G \$ P H L & K D L V W R I S K I H Q p

Printed Music:

## Credits

Christopher Redgate  
Paul Archbold

oboe  
piano and laptop

' D Y L / G I H E H U

V R X Q G

Sam Collins  
Colin Still

editor  
director & photography

\$ Q 2 3 7 , &