

Index

- Accelerometer, 57, 212, 214, 228, 230, 236
- Action, 16, 60
- Action–sound coupling, 31, 35, 99–100
- Action–sound mapping, 35, 123–124
- Action–sound palette, 35, 104, 106–107, 244
- Action–sound separation, 49, 107–109, 136–137, 159
- Aerophones, 44, 46
- Affordance, 33–36, 106, 212
- Analyst, 8–9
- Attack, 60, 73, 76, 91, 102, 222
- Biomechanics, 54
- Chordophones, 44, 46
- Chunk, 12, 14, 61–62, 68, 74
- Composer, 7–12
- Continuumini, 195, 200–202
- Control dimensions, 59–60, 191, 194
- Cracklebox, 136–138
- Degrees of freedom (DoF), 58–59, 191–192
- Digital audio workstation (DAW), 42, 157–158
- DJ, 42, 151, 153, 156
- Ecological listening, 26–27
- Electromyogram (EMG), 58, 235
- Electrophones, 45–46
- Entrainment, 71, 77, 241
- Envelope (ADSR), 75–76, 91–92, 126, 189
- Ethno-organology, 49–50
- Excitation, 71–76, 100–101, 108–112
- Force, 57–58, 68
- Force sensing resistor (FSR), 57, 129, 209, 215
- Friction, 46, 58
- Gestalt, 14, 104
- Gesture, 29, 33, 53, 64–69, 71–72, 222
- Gesture Description Interchange Format (GDIF), 85, 94–95
- Gyroscope, 57, 230, 236
- Haptics, 28, 33, 58, 134–135, 181–183, 188, 201–202, 230, 240–242, 250
- Hornbostel Sachs, 44–46, 108
- Idiophones, 45–46
- Impulsive sound action, 37, 73–78, 90–91, 103, 195, 201
- Inertial measurement unit (IMU), 57
- Instrument, 8, 39–50
- acoustic, 4, 108
 - air, 219–220, 241–242
 - automatic, 113–115, 121, 146–147
 - conceptual, 116, 148
 - digital, 46, 125–126, 141, 144
 - electric, 125, 139

- Instrument (cont.)
 - electro-acoustic, xi–xii, 46, 123–124, 137
 - electronic, 46, 125–126, 178
 - embodied, 109, 137
 - hybrid, 120, 127, 137, 162, 188
 - imaginary, 46–47, 116
 - mechanical, 112
 - tactile, 110–111
 - tool-based, 111
- Instrument maker, 8–11, 49–50
- Interactive music system, 129, 223
- Iterative sound action, 74–75

- Kinectofon, 227–228

- Laptop orchestra, 153–155
- Laserdance, 222–223
- Latency, 90, 126, 128, 164–169, 172, 242
- Linnstrument, 199–200
- Listener, 9, 31
- Low-frequency oscillator (LFO), 91–92

- Magnetometer, 57
- Membranophones, 44–46
- Microinteraction, 64, 233–235, 239
- Micromotion, 63–64, 81–82, 232–233
- MicroMyo, 236–238
- MIDI Polyphonic Expression (MPE), 92, 196–197
- Mirror neurons, 29–30
- Mobile orchestra, 145
- Modification action, 76, 109
- Motion, 53–55
- Motion capture, 55–57, 221
- Motor-mimesis, 28
- Motor theory of perception, 29–30
- Multimodality, 31
- Musical imagery, 10, 28, 101–102
- Musical Instruments Digital Interface (MIDI), 85, 90–93
- Musicking, 5–7
- Musicking quadrant, 7, 19–22, 245
- Musicking technology, 4, 243–247

- Music maker, 121–122, 207, 213, 244
- Music-related body motion, 53, 71

- Notation, 85–90
- Note, 85

- Open Sound Control (OSC), 92–93
- Organology, 40, 47–49

- Paper-cup phone, 160
- Perceiver, 6, 8–9
- Performer, 8–9
- Piano
 - acoustic, 183, 186–189
 - digital, 143, 149, 185–189
 - electric, 189
 - hybrid, 187–188
- Pose, 68–69
- Position, 68–69
- Posture, 68–69
- Producer, 10–11, 18, 22, 157–158

- Saw, musical, 39–40
- Seaboard, 190, 195–198, 202
- Self-playing guitars, 238–242
- Soniperforma, 224–227
- Sound-accompanying action, 72, 78, 80–81
- Sound-facilitating action, 71, 77
- Sound maker, 121, 140, 207, 232, 244
- Sound-modifying action, 47, 111
- Sound object, 17, 67–69, 74–76, 102–103
- Soundplane, 190, 198–200
- Sound-producing action, 16, 28–30, 71–74, 106–107, 219
- SoundSaber, 227–230
- Spatiotemporal distance, 118, 159, 164–165, 172, 194
- Spatiotemporal resolution, 194, 199, 207, 229
- Standstill, 64, 81, 233, 239–240
- Studio, 10, 18, 156–158
- Sustained sound action, 74–76

- Tactility, 30–31, 108–111, 134–135,
181–184, 250
- Techno-cognitive approach, 4, 6,
190–191, 203, 245
- Techno-somatic approach, 49, 104,
177–178, 190, 201
- Telematic performance, 159, 165–173,
248
- Texture, 75, 118
- Timbre, 60, 75, 90, 118, 169
- Time consciousness, 13–14
- Tone, 14, 19, 78, 85–91
- Touchkeys, 190, 194–196
- Trump, 48–49

- Voice, 43, 48, 107–109

- Waving Sines, 234–237

This is a section of [doi:10.7551/mitpress/14220.001.0001](https://doi.org/10.7551/mitpress/14220.001.0001)

Sound Actions

Conceptualizing Musical Instruments

By: Alexander Refsum Jensenius

Citation:

Sound Actions: Conceptualizing Musical Instruments

By: Alexander Refsum Jensenius

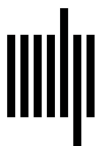
DOI: 10.7551/mitpress/14220.001.0001

ISBN (electronic): 9780262372206

Publisher: The MIT Press

Published: 2022

The open access edition of this book was made possible by generous funding and support from the author



The MIT Press

© 2022 Massachusetts Institute of Technology

This work is subject to a Creative Commons CC-BY-NC-ND license.

Subject to such license, all rights are reserved.



The MIT Press would like to thank the anonymous peer reviewers who provided comments on drafts of this book. The generous work of academic experts is essential for establishing the authority and quality of our publications. We acknowledge with gratitude the contributions of these otherwise uncredited readers.

This book was set in Sabon by Westchester Publishing Services. Printed and bound in the United States of America.

Library of Congress Cataloging-in-Publication Data

Names: Jensenius, Alexander Refsum, author.

Title: Sound actions : conceptualizing musical instruments / Alexander Refsum Jensenius.

Description: Cambridge : The MIT Press, 2022. | Includes bibliographical references and index.

Identifiers: LCCN 2021062387 (print) | LCCN 2021062388 (ebook) |

ISBN 9780262544634 (paperback) | ISBN 9780262372206 (pdf) |

ISBN 9780262372213 (epub)

Subjects: LCSH: Music—Performance—Psychological aspects. | Music—Psychological aspects. | Musical instruments. | Musical perception.

Classification: LCC ML3838 .J38 2022 (print) | LCC ML3838 (ebook) |

DDC 781.1/1—dc23/eng/20220415

LC record available at <https://lcn.loc.gov/2021062387>

LC ebook record available at <https://lcn.loc.gov/2021062388>

10 9 8 7 6 5 4 3 2 1