

Building Collaborative Graphical interFaces in the Audicle



<http://audicle.cs.princeton.edu/>
<http://plork.cs.princeton.edu/>

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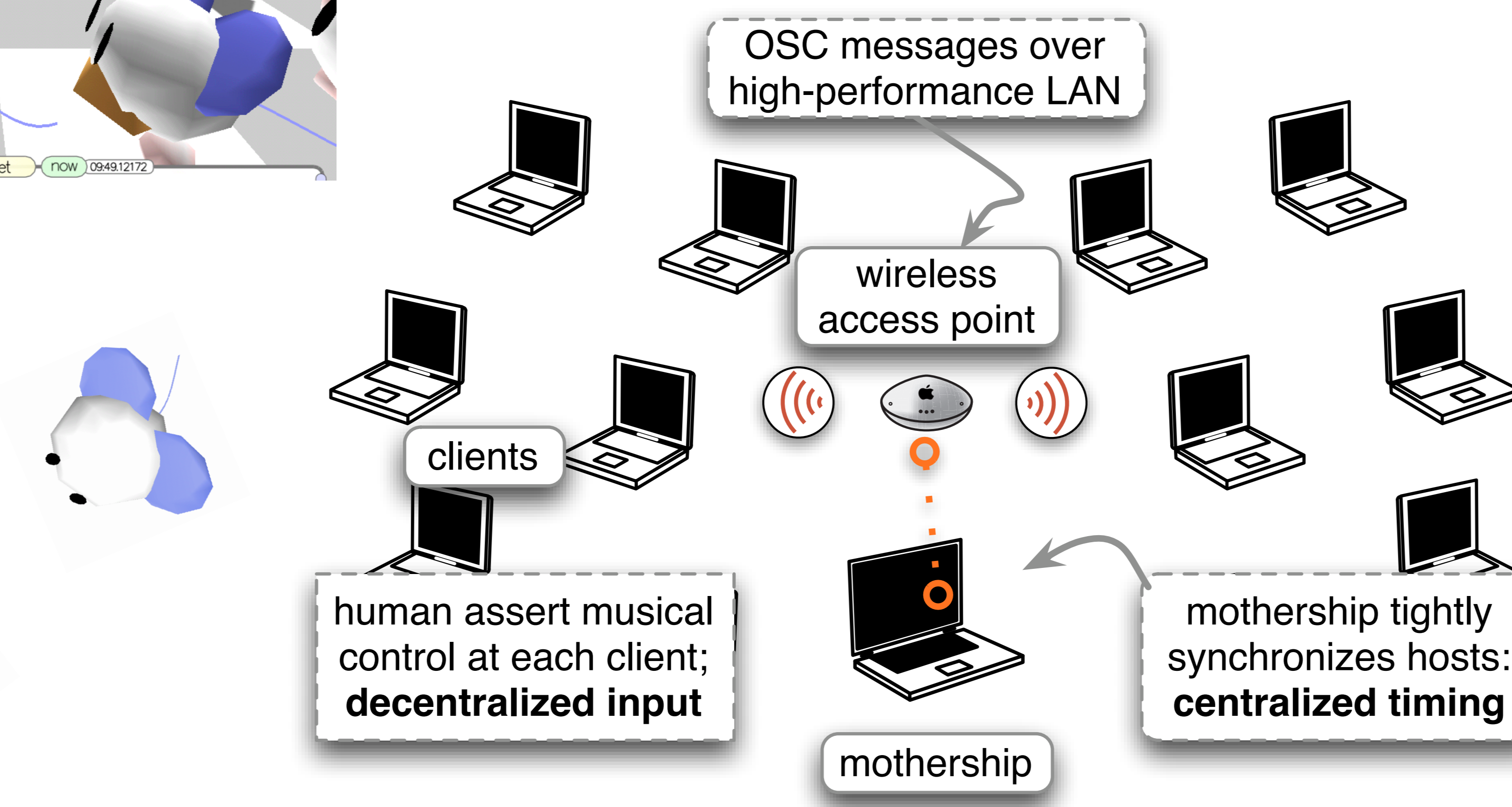
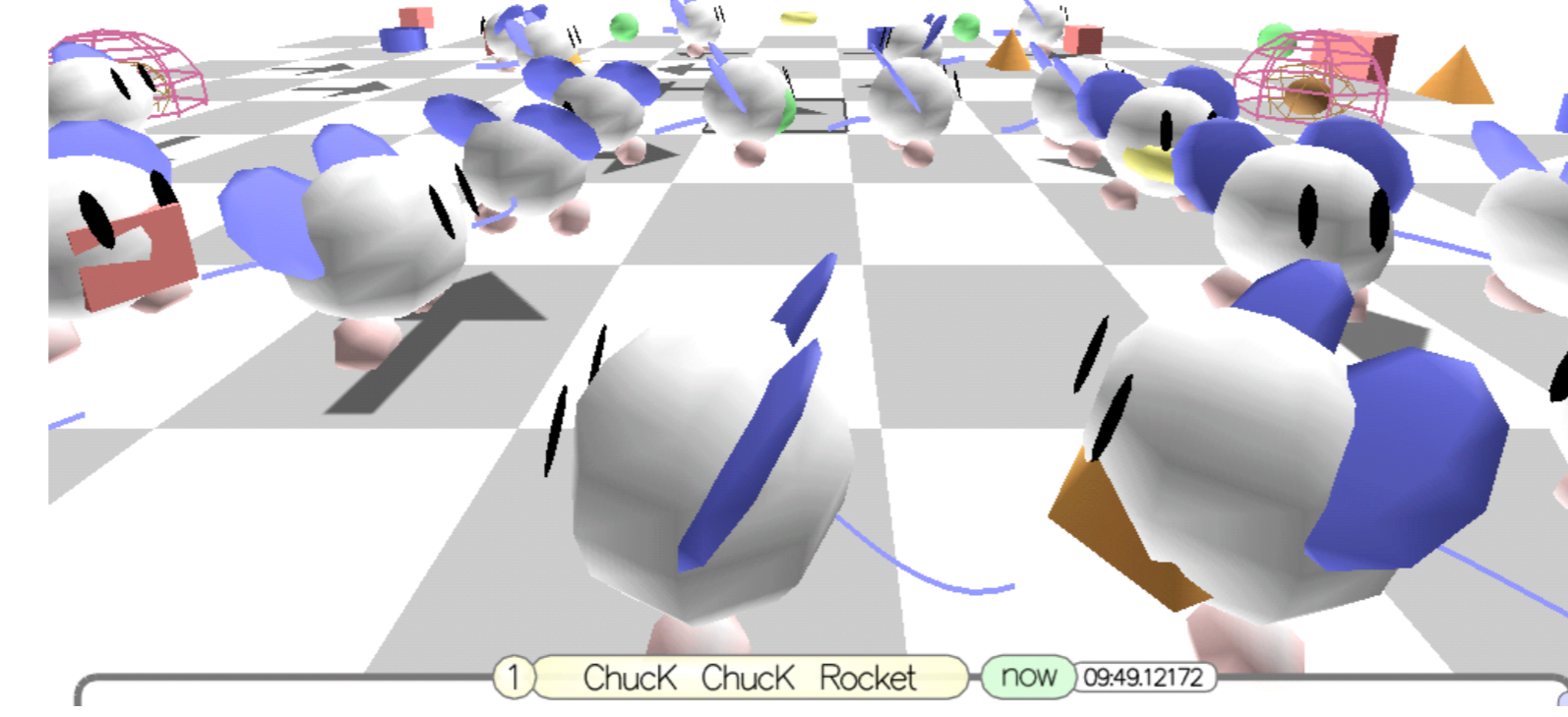
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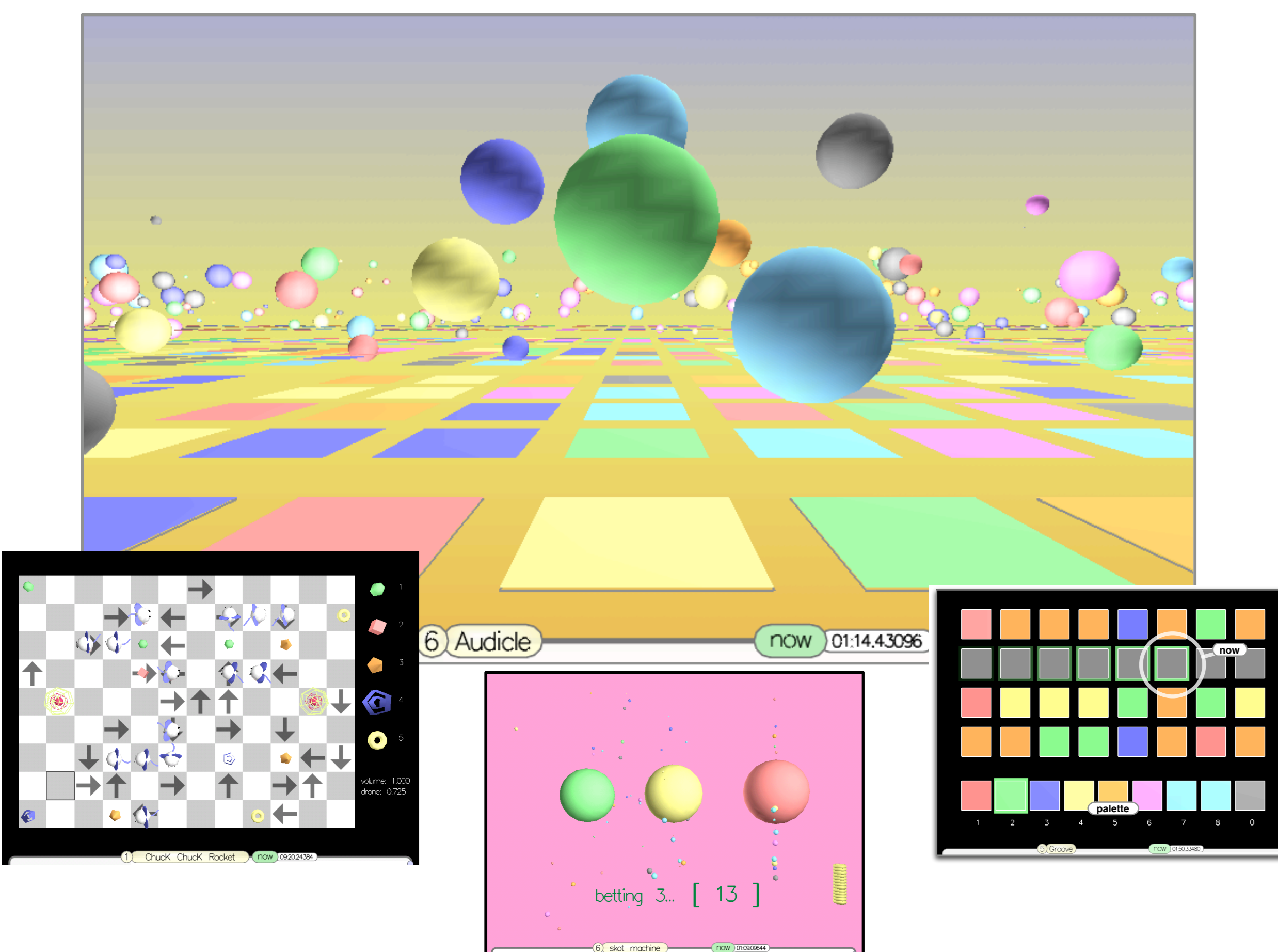
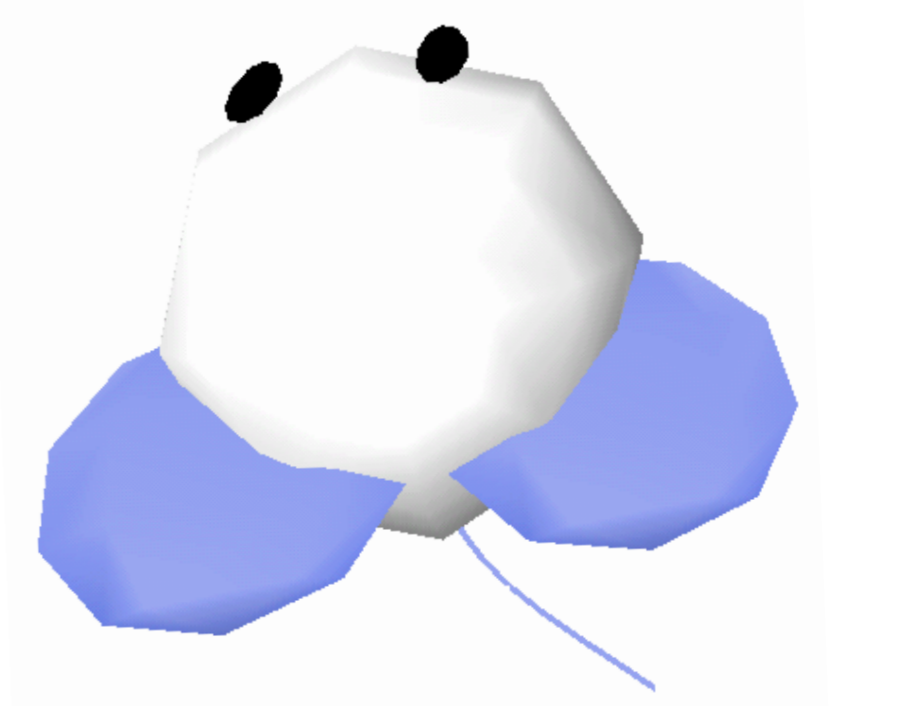
Motivation

- emergence (simple components, complex interactions)
- exploring new instruments for Princeton Laptop Orchestra
- new paradigms for electronically-mediated performance and pedagogy

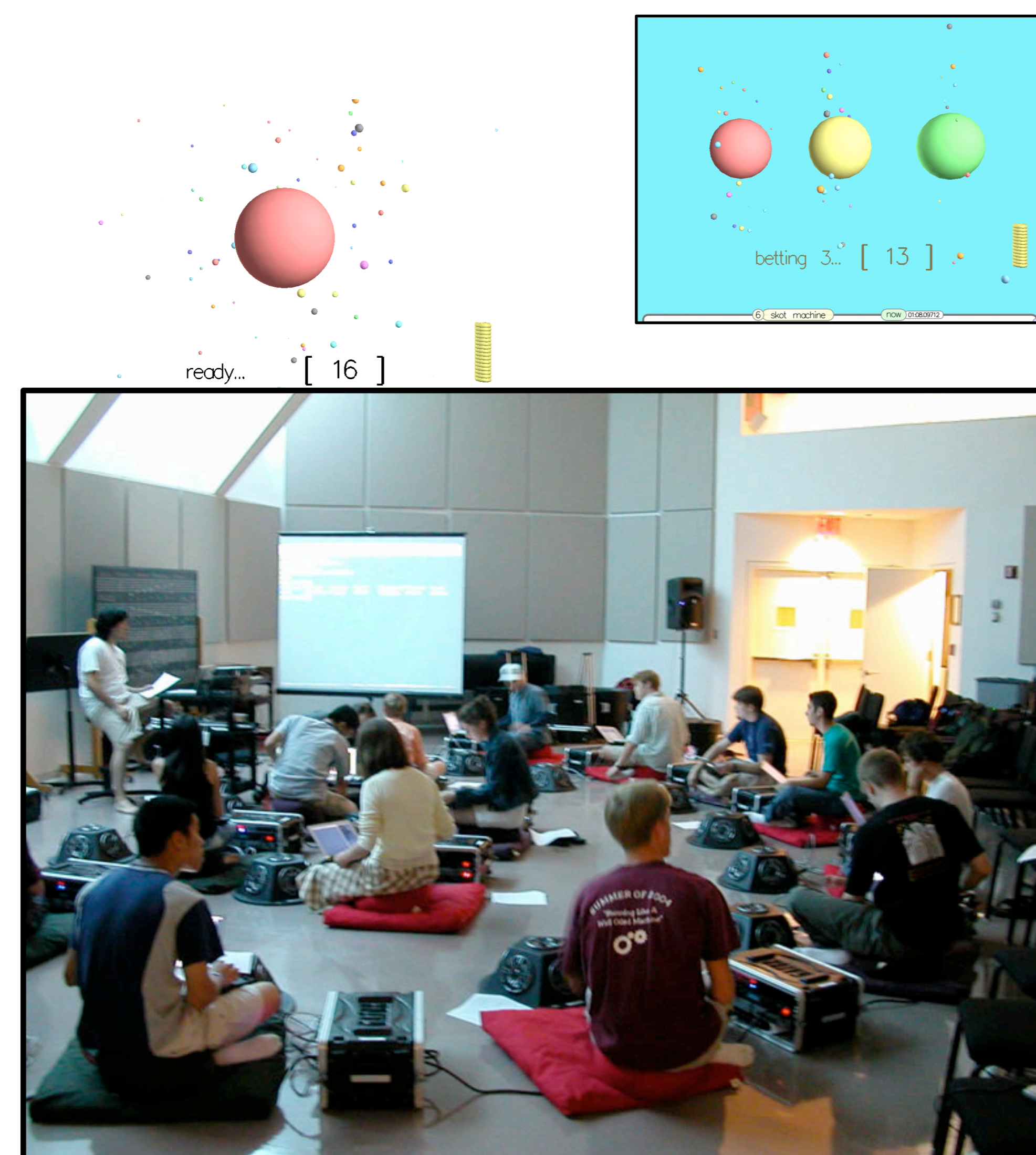


interFaces

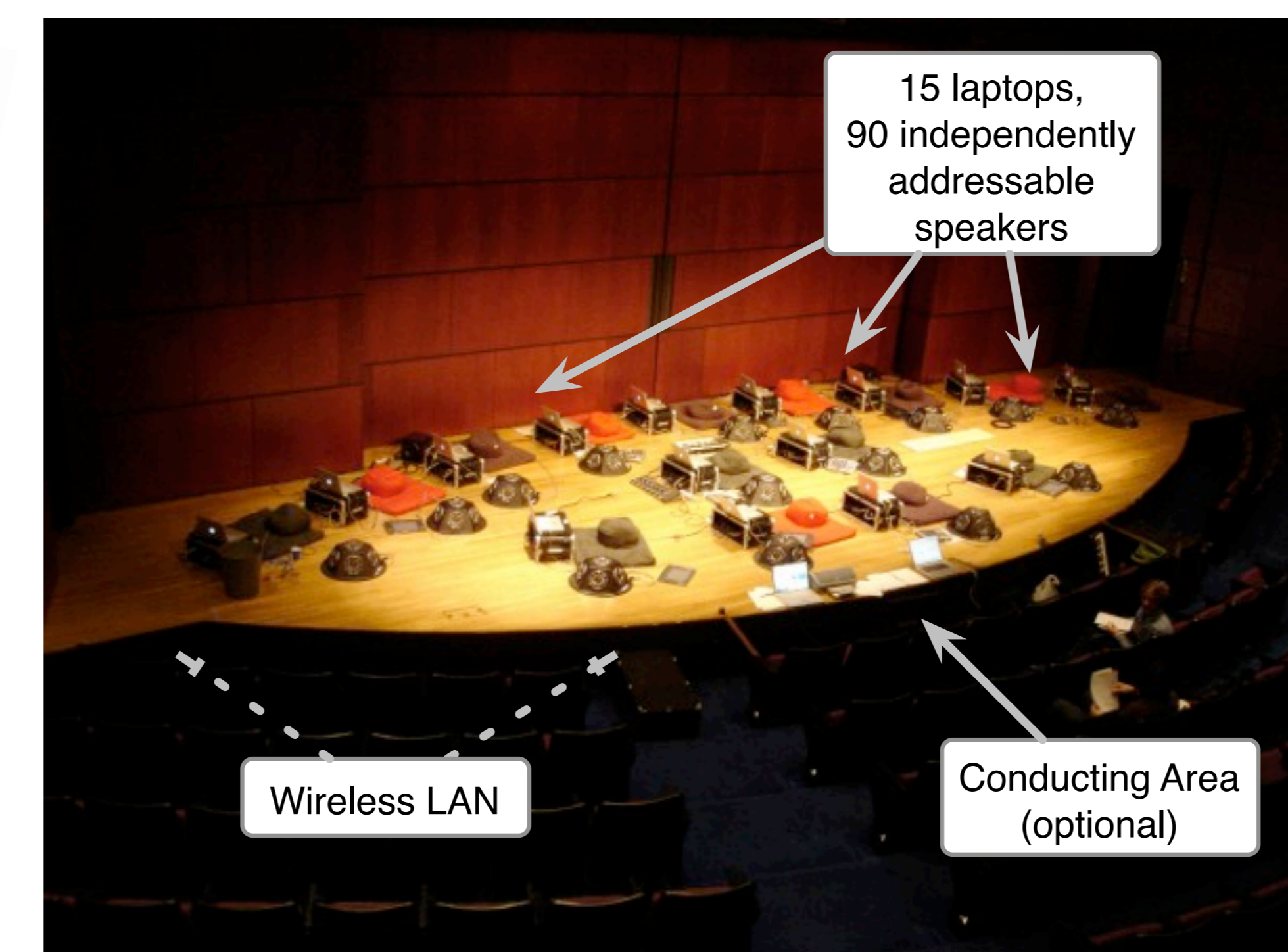
- simplicity of use; complexity in collaboration
- tightly-timed synchronization (across hosts)
- as direct and as immediate as possible
- easily programmable (mapping to sound + graphics)



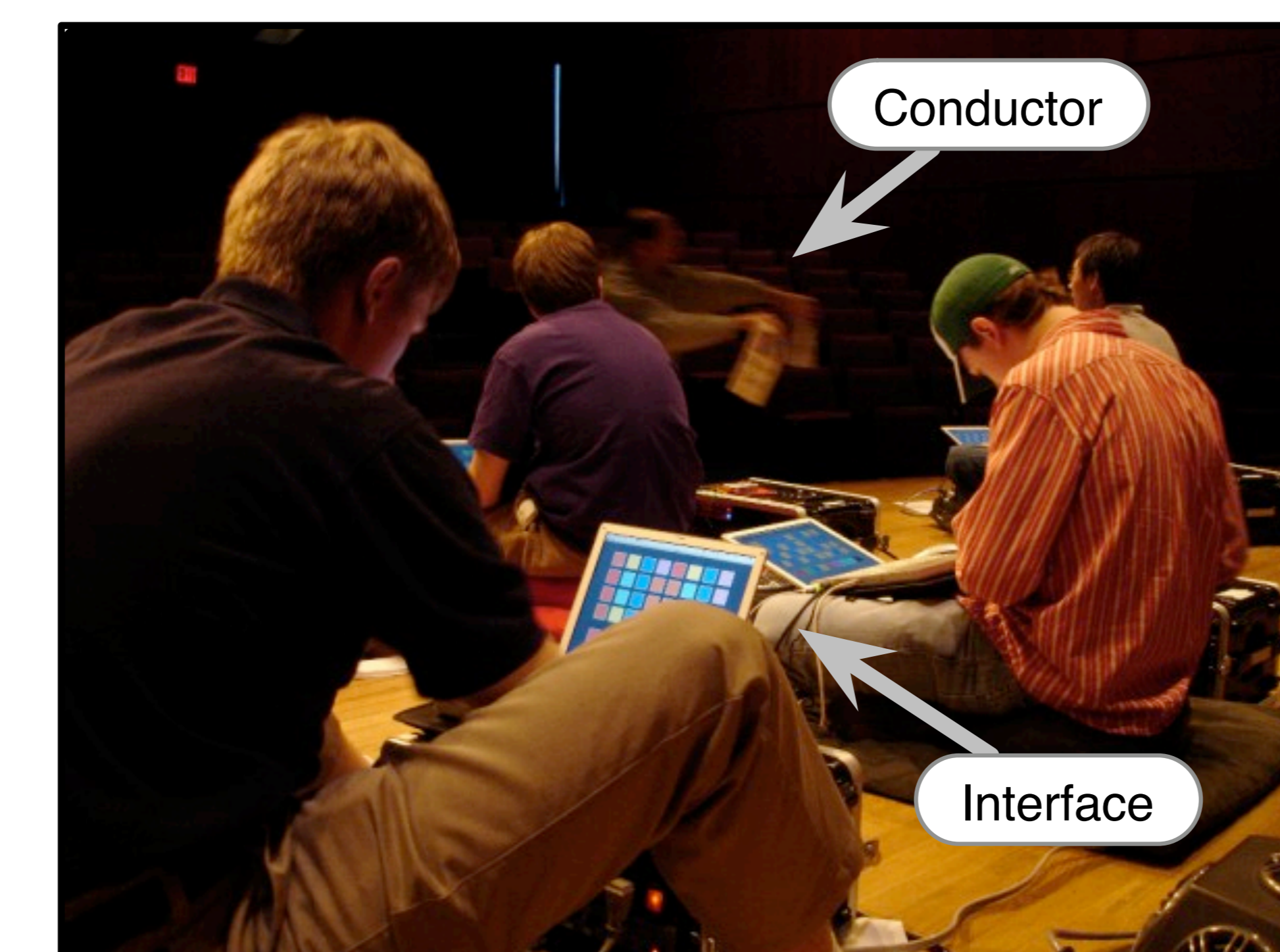
new interfaces



PLOrk class session

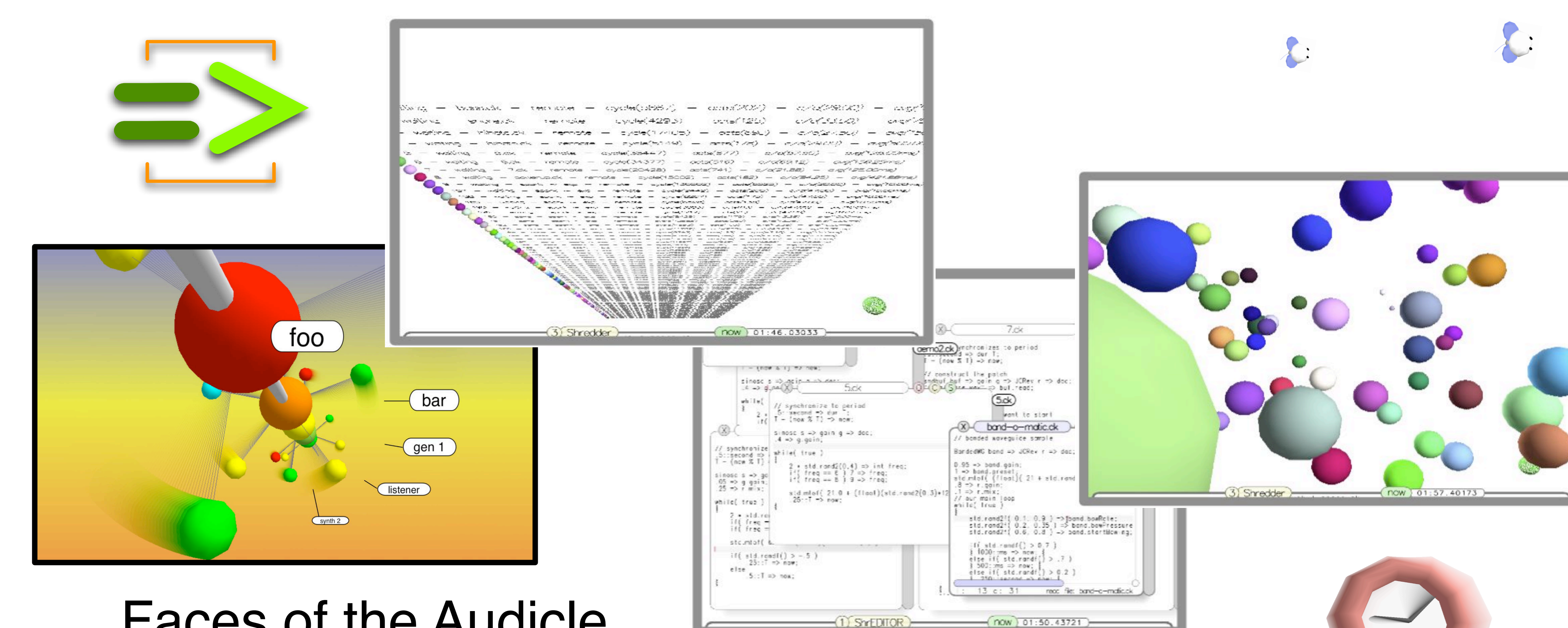
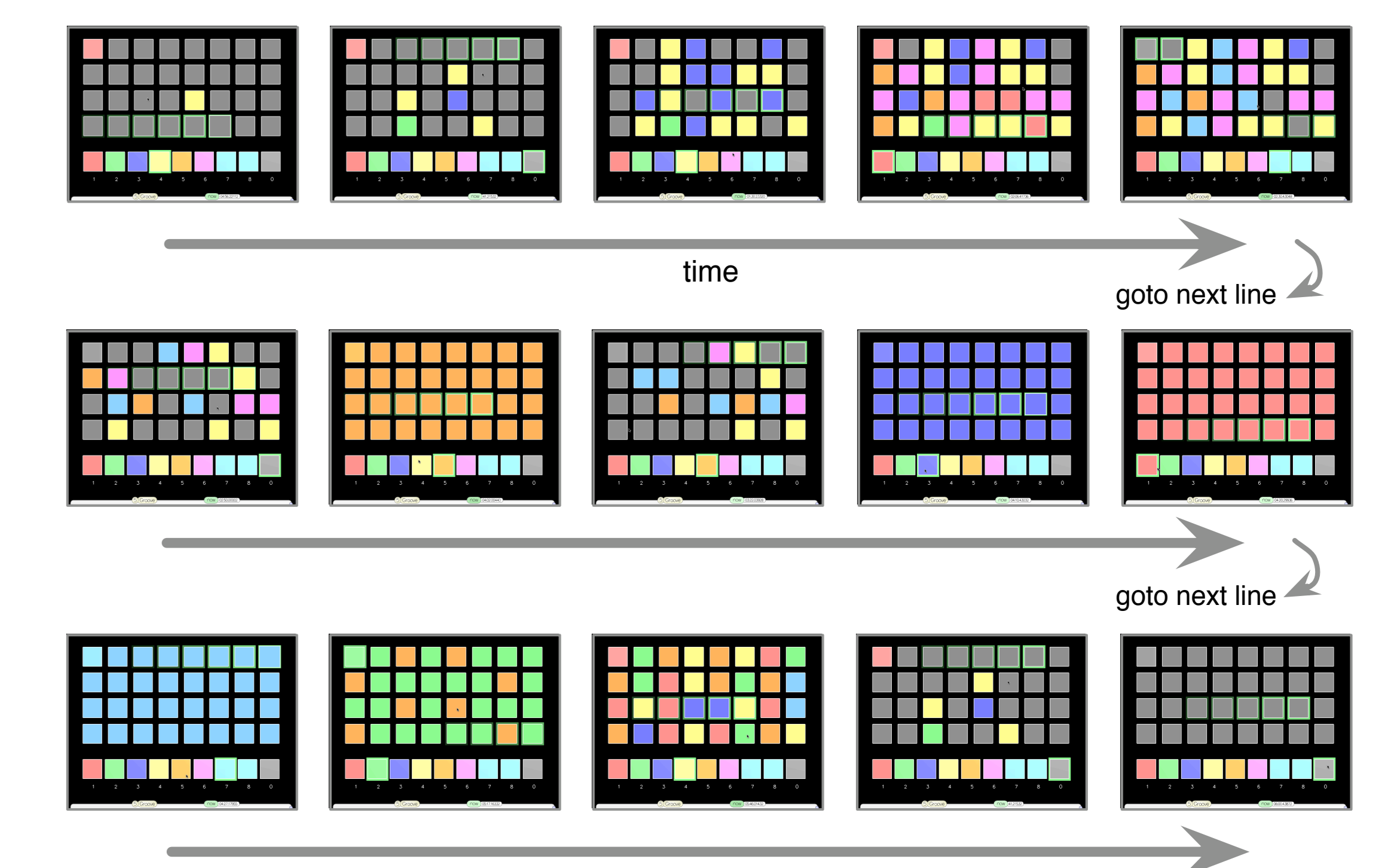
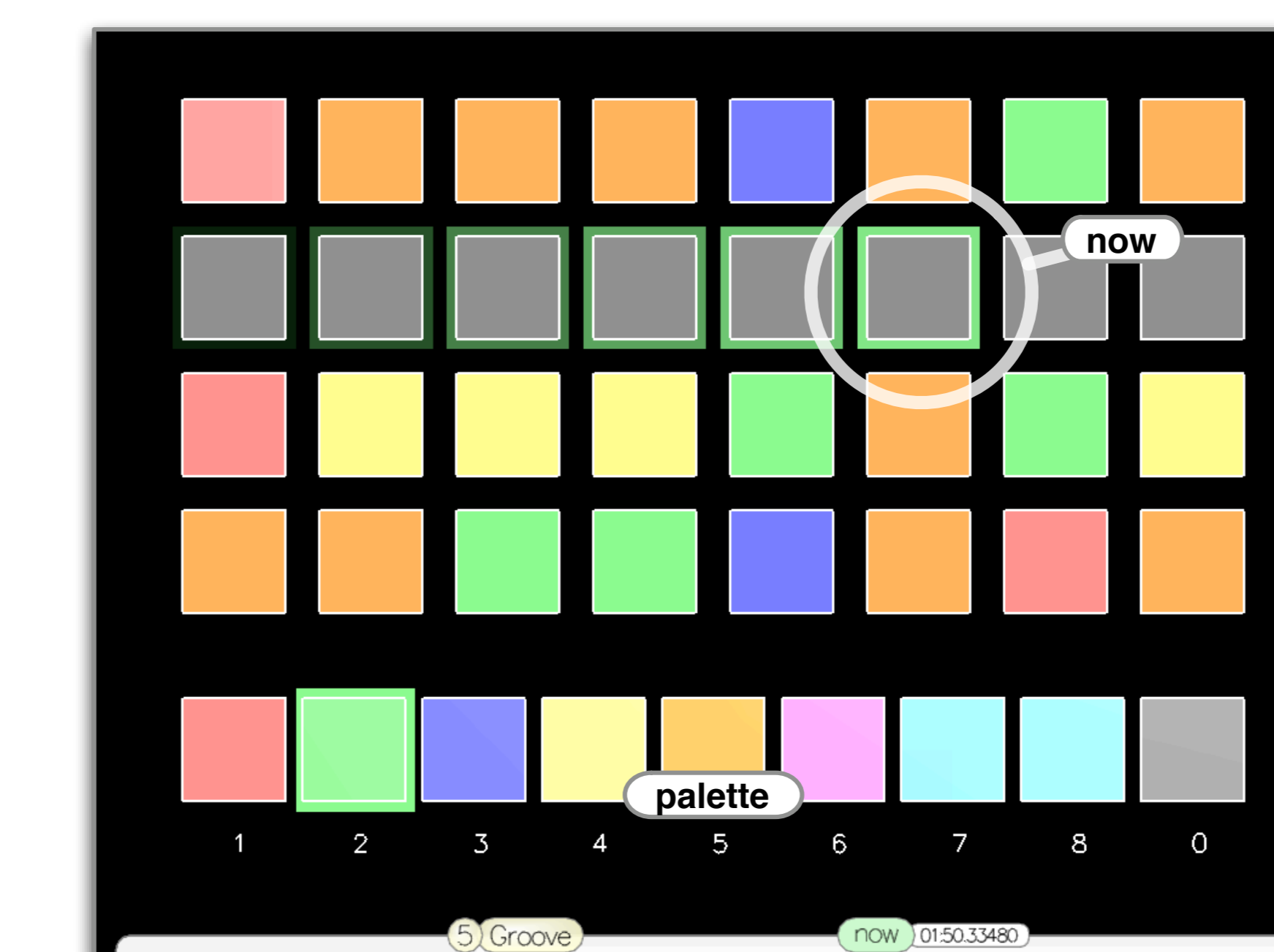


PLOrk stage configuration



Onstage performing

Non-Specific Groove Interface (below) One possible score (right)



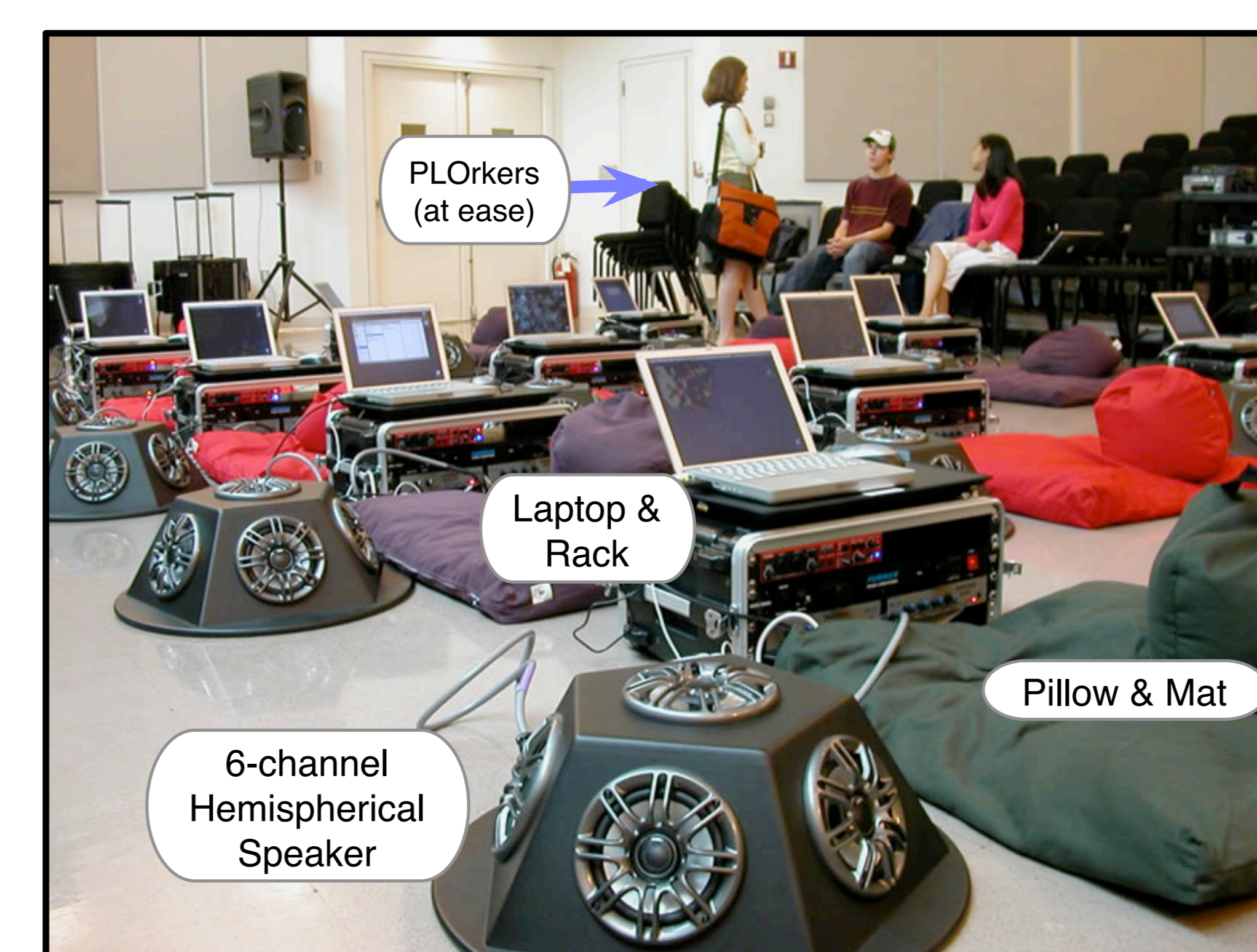
Faces of the Audicle

the Audicle

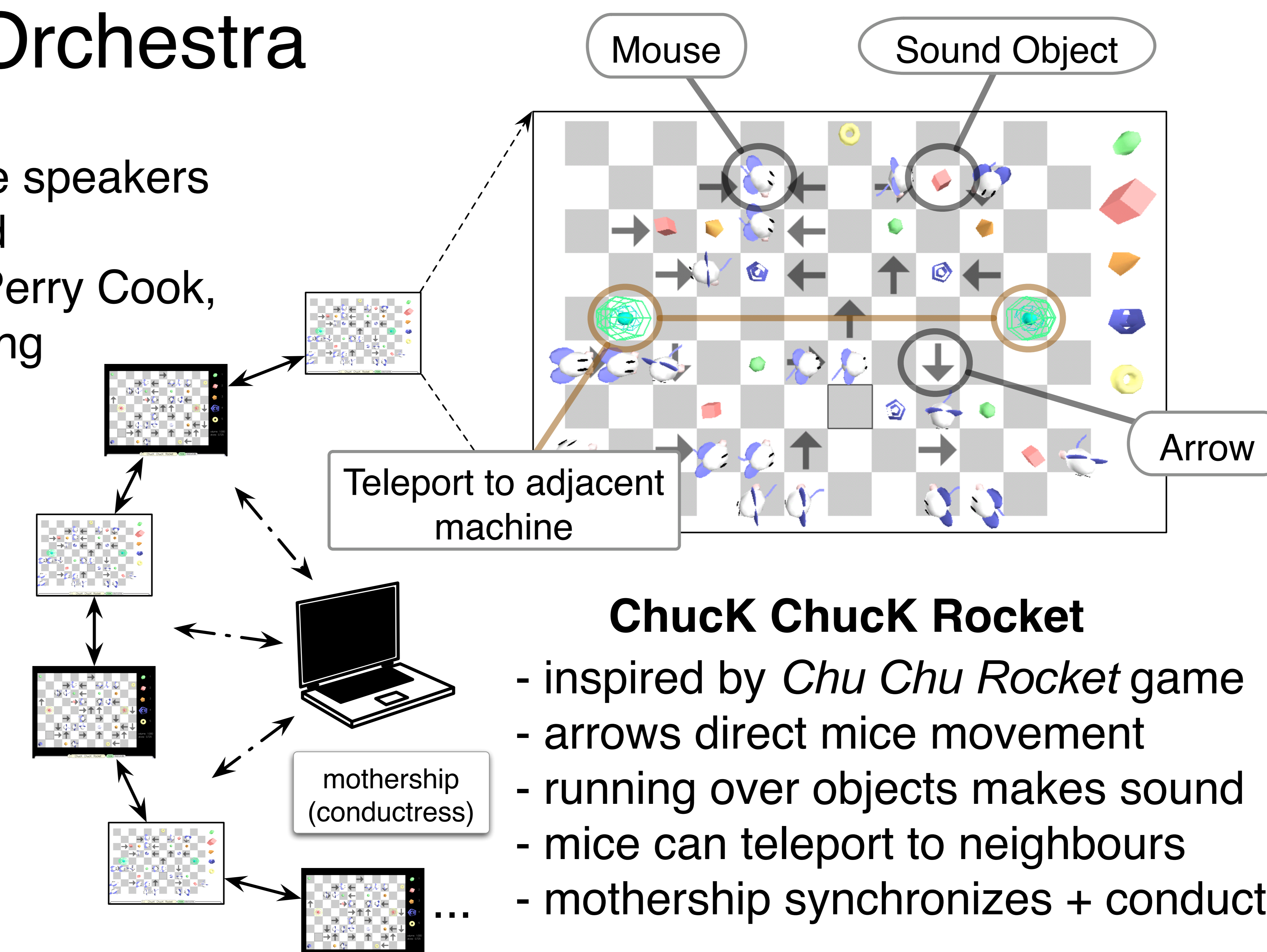
- platform for implementing high-performance graphical inte
- combined with real-time sound synthesis in **Chuck**
- graphics in C++/OpenGL (coming soon: GLuck)

Princeton Laptop Orchestra

- 15 humans, 15 laptops
- 90 independently addressable speakers
- can be machine-synchronized
- instructed by Dan Trueman, Perry Cook, Scott Smallwood, and Ge Wang



A PLOrk station



Chuck Chuck Rocket

- inspired by *Chu Chu Rocket* game
- arrows direct mice movement
- running over objects makes sound
- mice can teleport to neighbours
- mothership synchronizes + conducts



On The Floor Gambling Interface
 (above, with Scott Smallwood)

