

what are the parameters of movement?

last week we looked at the tabla and flute player's movements,
and talked about how we learn to use tools, and adapt our bodies to use them.
at the same time tools are designed to be used, and to be used in certain ways

what are the parameters of movement?

how do people relate to their instruments?

how does the instrument create a set of possibilities?

sensing paradigms

so today we're going to watch a bunch of videos exploring different sensing paradigms

sensing paradigms

Surface Interaction

buttons, knobs, sliders, tablet, contact mic...

...things that we touch with our hands

Surface Interaction

some examples



Surface Interaction

the slider

dj qbert crab scratch:

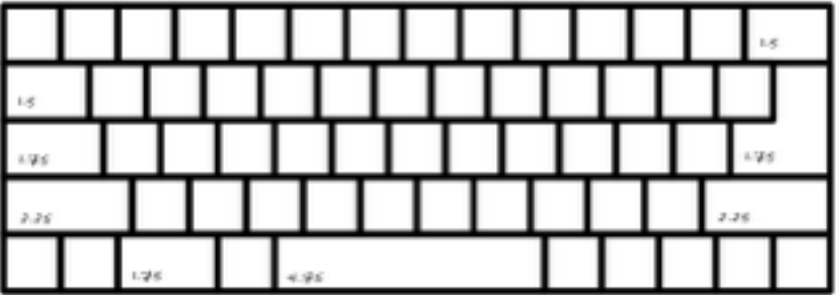
https://www.youtube.com/watch?v=R_6fVOEitTE

slider+



Surface Interaction

“Artiphon” <https://youtu.be/6iYl9X6lpUE?t=14>



Surface Interaction

... buttons



we have a lot of buttons

buttons!

Surface Interaction



maimai: <https://www.youtube.com/watch?v=r-RLvp1Wst4>

humans can be quite virtuosic with buttons
is this ergonomic?

(also touch screen)

Surface Interaction



maimai: <https://www.youtube.com/watch?v=r-RLvp1Wst4>

(maimai also uses a touch screen)

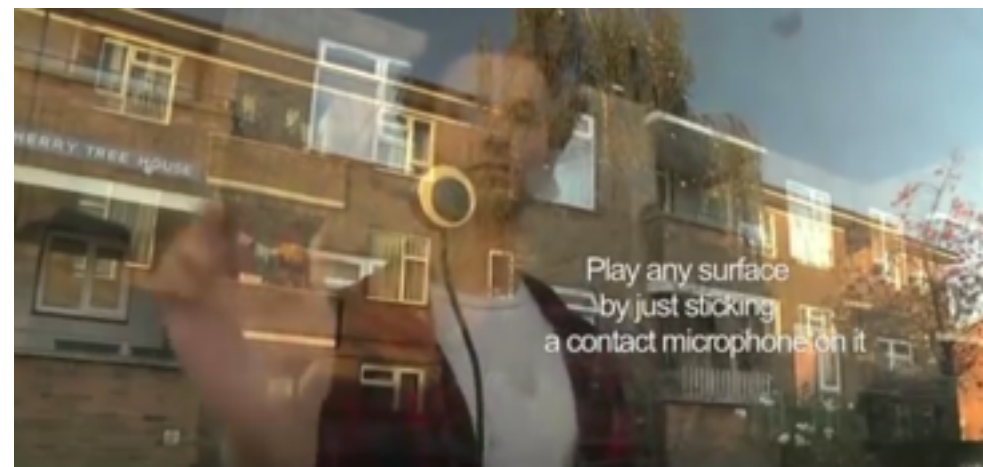


Surface Interaction

table(t)

Thierry de Mey “table music”:
<https://www.youtube.com/watch?v=J91emaxq0iY>

an example of analog surface interaction



Surface Interaction

surface

mogee :

<https://www.youtube.com/watch?v=xdo8N30qb2A>



Surface Interaction

surface (via video)

reactables

<https://www.youtube.com/watch?v=I9AeUISg-Og>

sensing paradigms

Wearable & Biometric

gloves, breath, ... accelerometers, bend sensors

gloves



Wearable & Biometric

Laetitia Sonami "lady's glove"

gloves

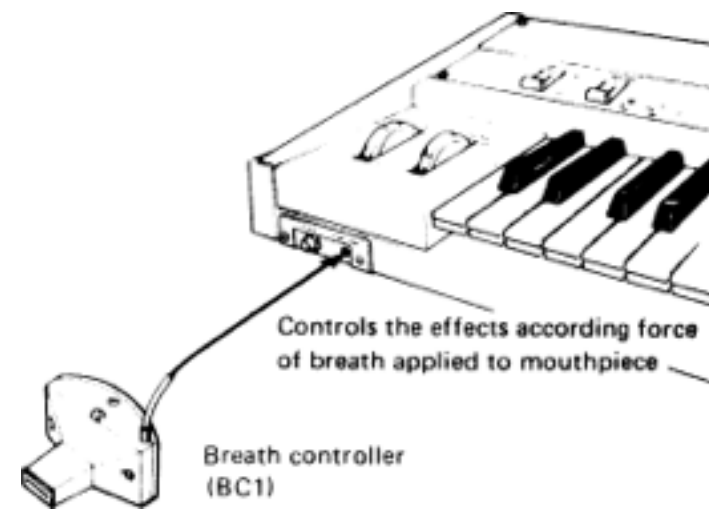


Wearable & Biometric

imogen heap

glove demo : <https://www.youtube.com/watch?v=ci-yB6EgVW4>

breath sensor



Wearable & Biometric

demo : <https://www.youtube.com/watch?v=5BT9AMventU>

sensing paradigms

“Unencumbered”

kinect, camera, theremin, air microphone ...

sensing “freely”, which actually always has contextual situatedness

“Unencumbered”



Myron Krueger (pioneer of virtual reality and interactive art) :
<https://www.youtube.com/watch?v=dmmxVA5xhuo>

“Unencumbered”



clara rockmore / theremin:

<https://www.youtube.com/watch?v=pSzTPGINa5U>

note her playing technique

spatial interaction



William Forsythe: Improvisation Technologies:

<https://www.youtube.com/watch?v=6X29OjcBHG8&index=1&list=PLAEBD630ACCB6AD45>

intro parts 1-2 , complex 1, approaches 1-2, final (simple-complex)

dance is interesting to look at for us because it is movement "separated from instrument", of course you could also say that the space is their instrument, but it works differently because the space of movement in dance is arguably more open than the space of instrumental technique since traditional musical instruments require activation, and change of position to change the pitch of the instrument.

William Forsythe's instructional videos are interesting in that he gives us some insight into how he creates spatial systems that he uses to interact. He calls it "improvisation technologies"