

# optosonics

a hands-on lecture/workshop about the history and technology of optical sound.  
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Discovering selenium, a mineral that transforms light into electricity in the 19th century made it possible.

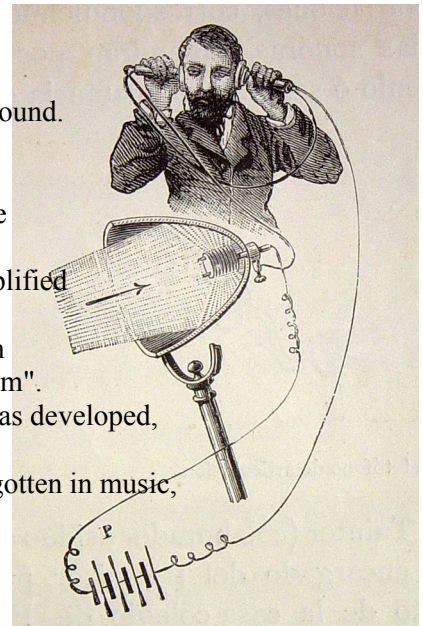
Changing light produces changing electrical current that can easily be amplified into sound - given that the loudspeaker is invented.

Inventors, engineers and artists were experimenting with this effect, which amongst other things led to the major commercial success of "sound on film".

Also early synthesizers could be built before the vacuum tube oscillator was developed, or even audio "samplers".

Nowadays this technology is used in optical data transmission but got forgotten in music, though modern photocells are much faster than selenium cells, sound better and they are cheap.

We present the optical synthesizer in the era of DIY.



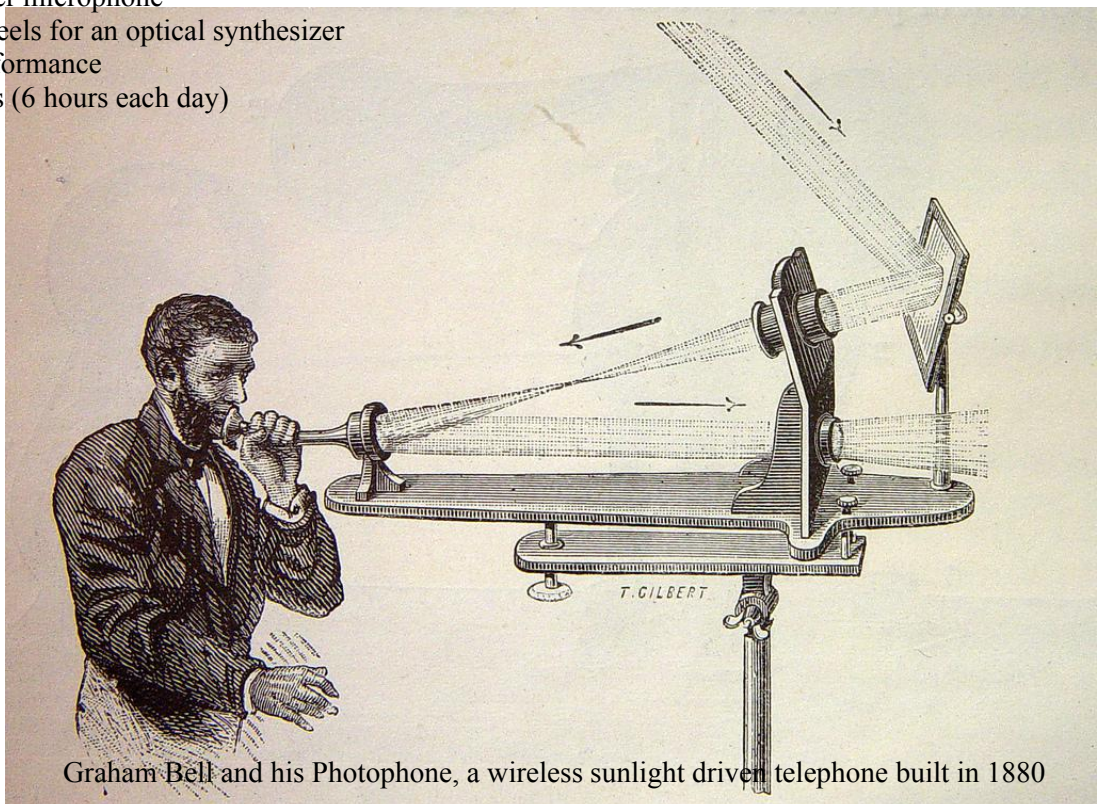
## 2 options:

1 -----

- lecture with practical sounding examples of the shown history
  - presentation of very simple electronic circuits (handouts)
  - open-end experimenting with the tools for all participants
- duration: 2-4 hours

2 -----

- in depth lecture with practical sounding examples of the shown history
  - presentation of very simple electronic circuits
  - open-end experimenting with the tools for all participants
  - building (soldering) own devices like
    - light-to-audio sensor
    - audio to light transmitter
    - spy-laser microphone
    - tonewheels for an optical synthesizer
  - collective performance
- duration: 2 days (6 hours each day)



some photos from our lecture/workshops:

imafocus salon izidor kršnjavi	zagreb	croatia
salon elise#2 klangraum fr.	vienna	austria
workshop punctum	praha	czech republic
lichtton ima-FH	st.pölten	austria
zeijan university	hangzhou	china
audible area	chengdu	china

