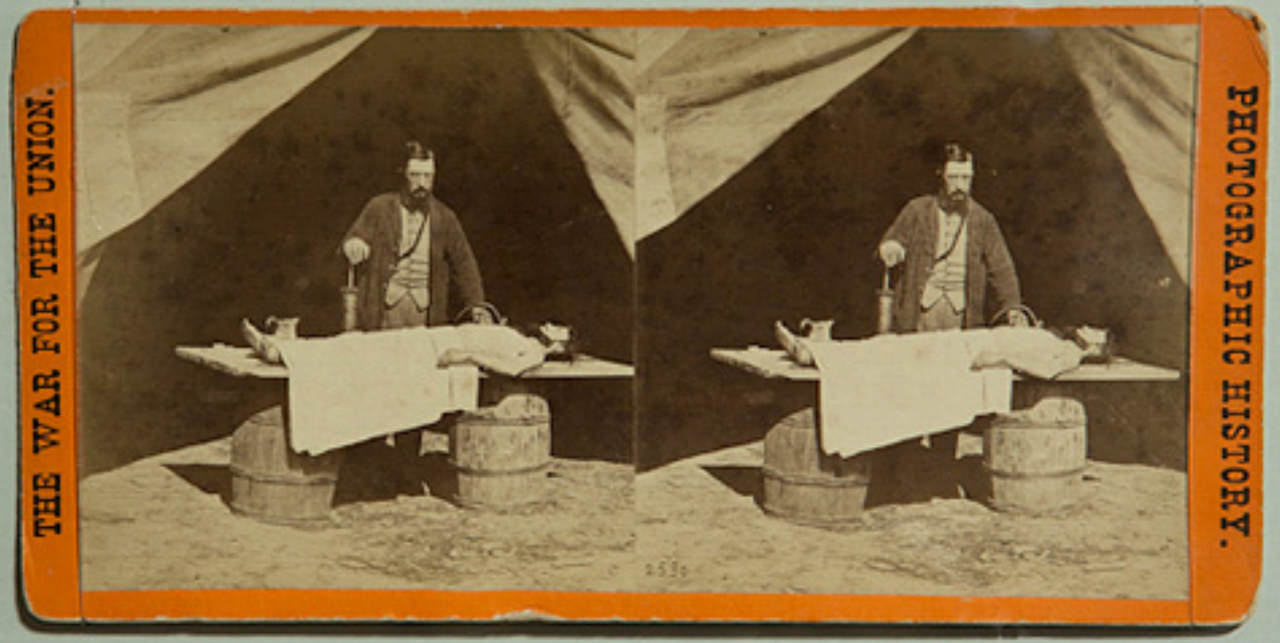

THE SATURDAY EVENING POST
An Illust ly
Founded A° D° Franklin
JAN. 14, 1922
THE SPHINX
5c. THE COPY
Norman Rockwell



Dr. Richard Burr, Embalming Surgeon, Army of the James
Unknown photographer; E. & H.T. Anthony & Co., publisher (NYC)
1864

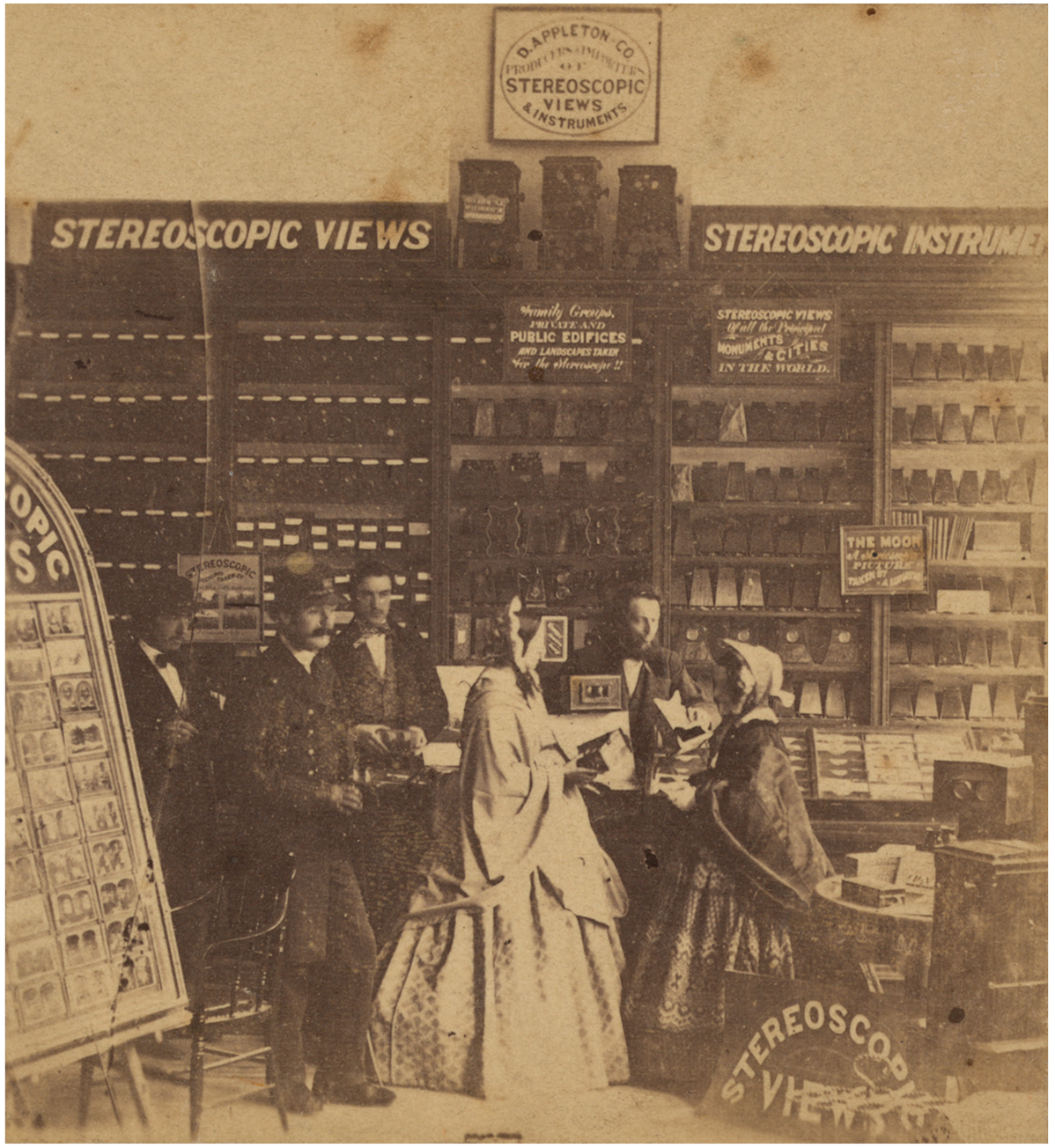
The comparatively small stereo camera was used extensively to document the Civil War.

What's Binocular Vision (got to do with it)?

2 eyes=2 different perspectives.
Brain combines them into a 3D image.
Binocular vision=depth perception.

Not everyone can see in 3D. My twin had strabismus.
Monocular vision=no depth perception.

My twin Rani (left) couldn't see in 3D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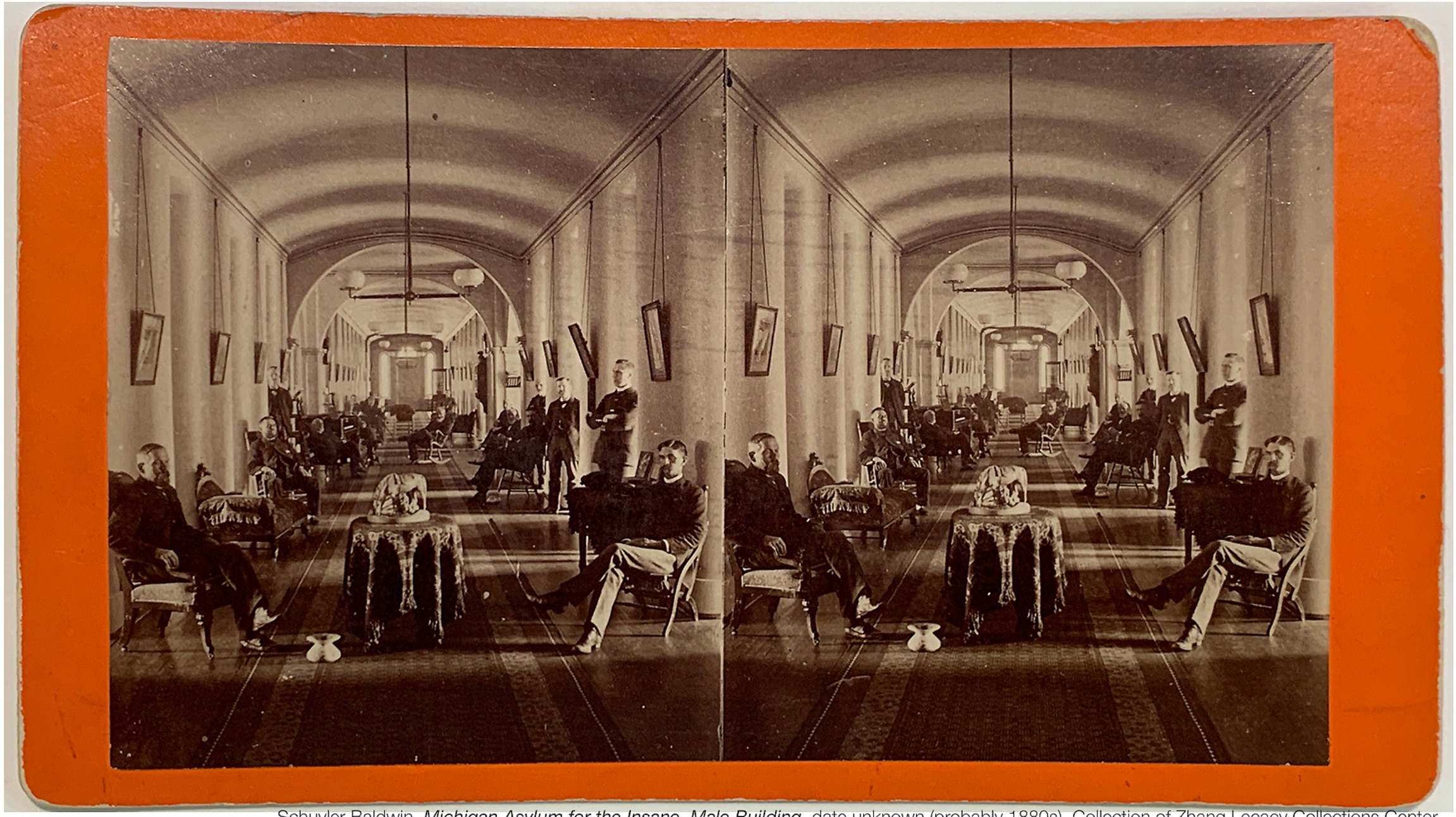


Schuyler Baldwin, *Michigan Asylum for the Insane, Male Building,* date unknown (probably 1880s). Collection of Zhang Lecacy Collections Center

Briscoe Western Art Museum Photo by Colleen Woolpert

California Museum of Photography photo courtesy of museum

Alaska Native Heritage Center photo by Marc Shaffer

Smithsonian Archives of American Art Photo by Colleen Woolpert

Buffalo and Erie Public Library photo courtesy of library

Some of the over two dozen stereograph exhibits that others have created with the TwinScope Viewer

Making Stereographs Then

Until the 1880s, photogs. took their darkrooms along

Making Stereographs:

Capture

Devices & Techniques

Cha-cha w/ smartphones

For static subjects (or experiments)

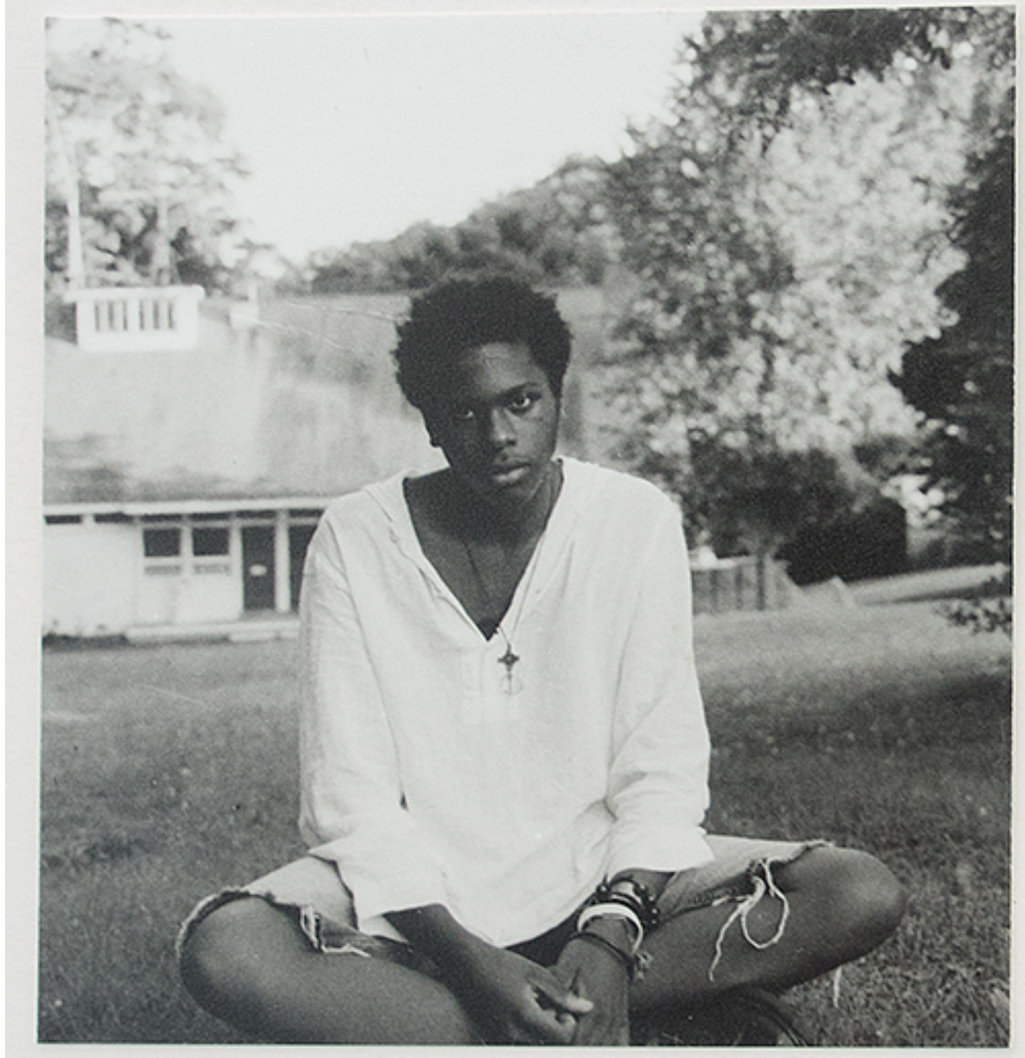
- **Single camera sequential**
- **Smartphone capture**
- **Cha Cha for L/R**
- **App: i3D Steroid (iPhone), 3D Steroid (Android)**
- Single Camera on slide bar

For action subjects

- 3D Camera
- 2-single cameras (“twin rig”)
- Single camera with a 3D lens
- Single camera with a beam splitter

3D camera

“twin rig” with synched shutters




Making Stereographs
GLACIER
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OF THE INTERIOR

Before We Begin

What makes a great 3D image?

CUE: please view actual examples now

What do you notice about the following? What interests or attracts you?

- **Frame/Format:** Horizontal, vertical, square?
- **Viewpoint:** Level with subject, looking up or down? Straight or tilted?
- **Subject matter:** What's portrayed? How simple/busy is the image?
- **Composition:** How are elements arranged?
- **Focus** (Depth of field)**:** Is everything sharp?
- **How Motion is Portrayed** (Shutter Speed)**:** Sharp/blurry?
- **Perspective** (lens selection)**:** Normal, wide-angle, or telephoto?

Before we Begin (cont.)

Cue: please view actual examples now

Consider depth cues from "regular" photography

- **Side lighting:** show form & texture
- **Distance to subject:** closer, not too close
- **Lens selection:** when to use wide/tele
- **Leading lines:** from near to far
- **Frames within frames:** looking through something into distance

Which is the left/right view? Are they correctly oriented, or pseudoscopic?

How to "free view" without a stereoscope (parallel; cross)

Challenge: Depth is novel, but does the image offer anything else?

Making Stereographs:

Capture

Single Camera Sequential 3D Photos
—w/ Smartphones (or tablets)

Steps to capture L/R Images *WITH* App

1. Launch app, Select camera icon
2. Hold smartphone vertically (portrait)
3. Set/Lock focus & exposure
4. Compose; Take 1st pic (left)
5. Shift right (watch overlay); take 2nd pic (right)
   - Cha Cha: Pivot on hips, hold camera level (don't tilt)
   - Stereo base? 2.5" normal, hyper/hypo (1/30 rule)
   - Exceptions to left/right order: cloud movement
6. In app, select magic hat (lower left) to see deviation (1-3%)
   - Deviation=stereo base; if not good, reshoot
   - Magic hat=alignment=first step in processing


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https://colleenwoolpert.com/

(see TwinScope Stereograph Projects)

As an artist and educator, I:

* Make stereographs and stereoscopes (the patented TwinScope Viewer & SLIM TwinScope Viewer)
* Produce exhibitions of vintage and contemporary stereographs
* Use my stereoscopic art to discuss binocular vision and promote vision therapy for strabismus
* Give workshops (currently Zoom) on how to take 3D photos and make stereographs

Additional Links:

https://colleenwoolpert.com/Workshop-Making-Stereographs-digital
https://stereoscopy.blog/2020/06/05/how-to-make-your-own-iphone-stereoviews-basic-tutorial/
https://stereoscopy.blog/2020/05/29/how-to-make-your-own-smartphone-stereoviews-basic-tutorial/
https://stereoscopy.blog/2019/08/04/how-to-view-stereoscopic-3-d-images-basic-tutorial/
https://www.berezin.com/3d/3dglasses.htm
https://stereoworld.org/