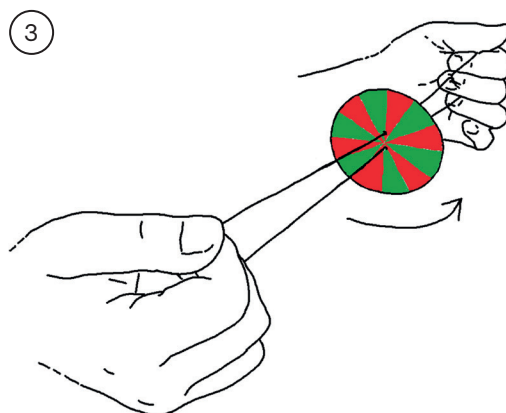
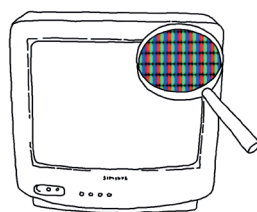
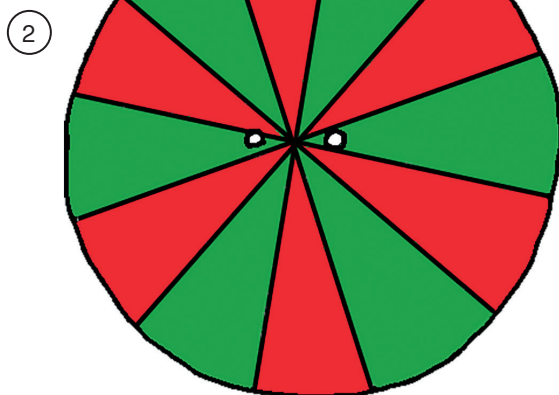
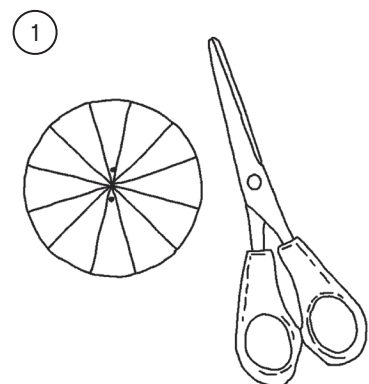
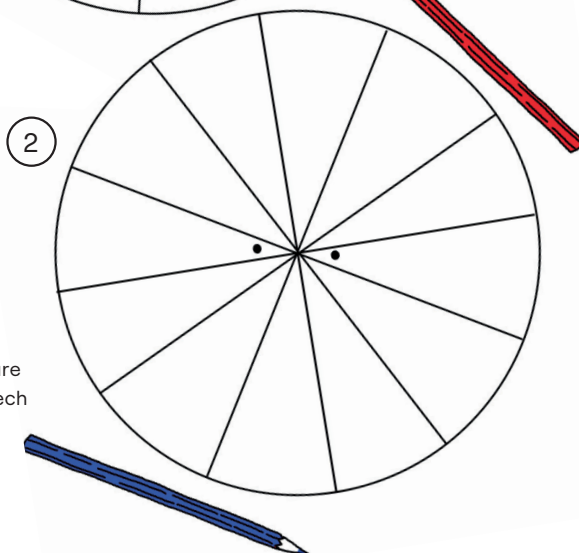
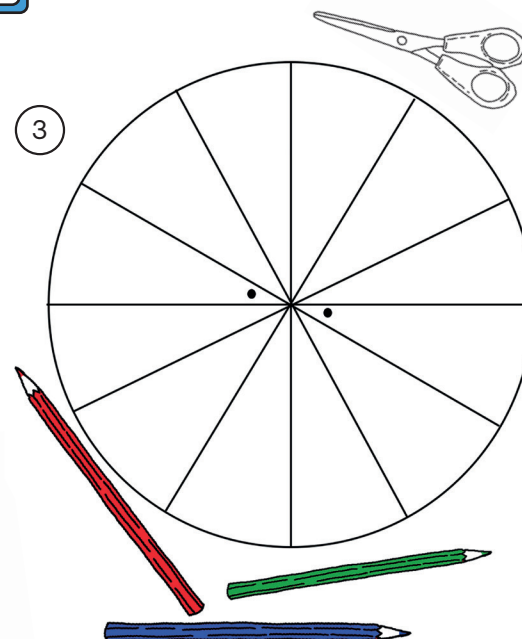
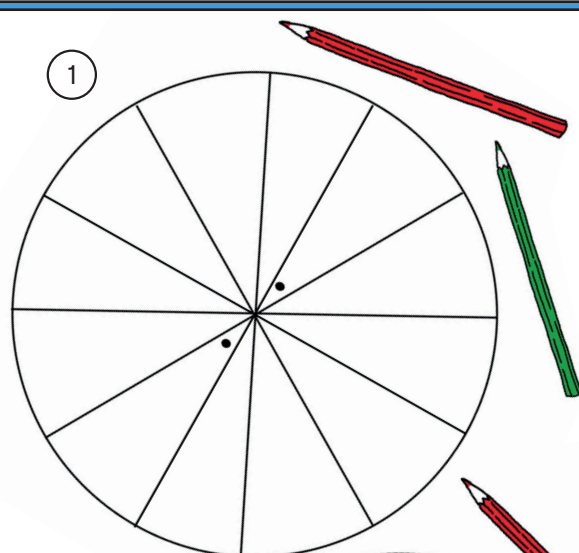


# Discover Color Blending!



Thread the wheel and position it at the very center of the string. Grasp the string at both ends and give it a good spin to get the string wound up. Then stretch it and watch the wheel spin back quickly and change color. When you spin the red-green wheel, you will see yellow. If you use red-blue, you'll see pink-purple, and if you color it red-blue-green, you'll see white!



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**LISTASAFM**  
**ÁRNESINGA**

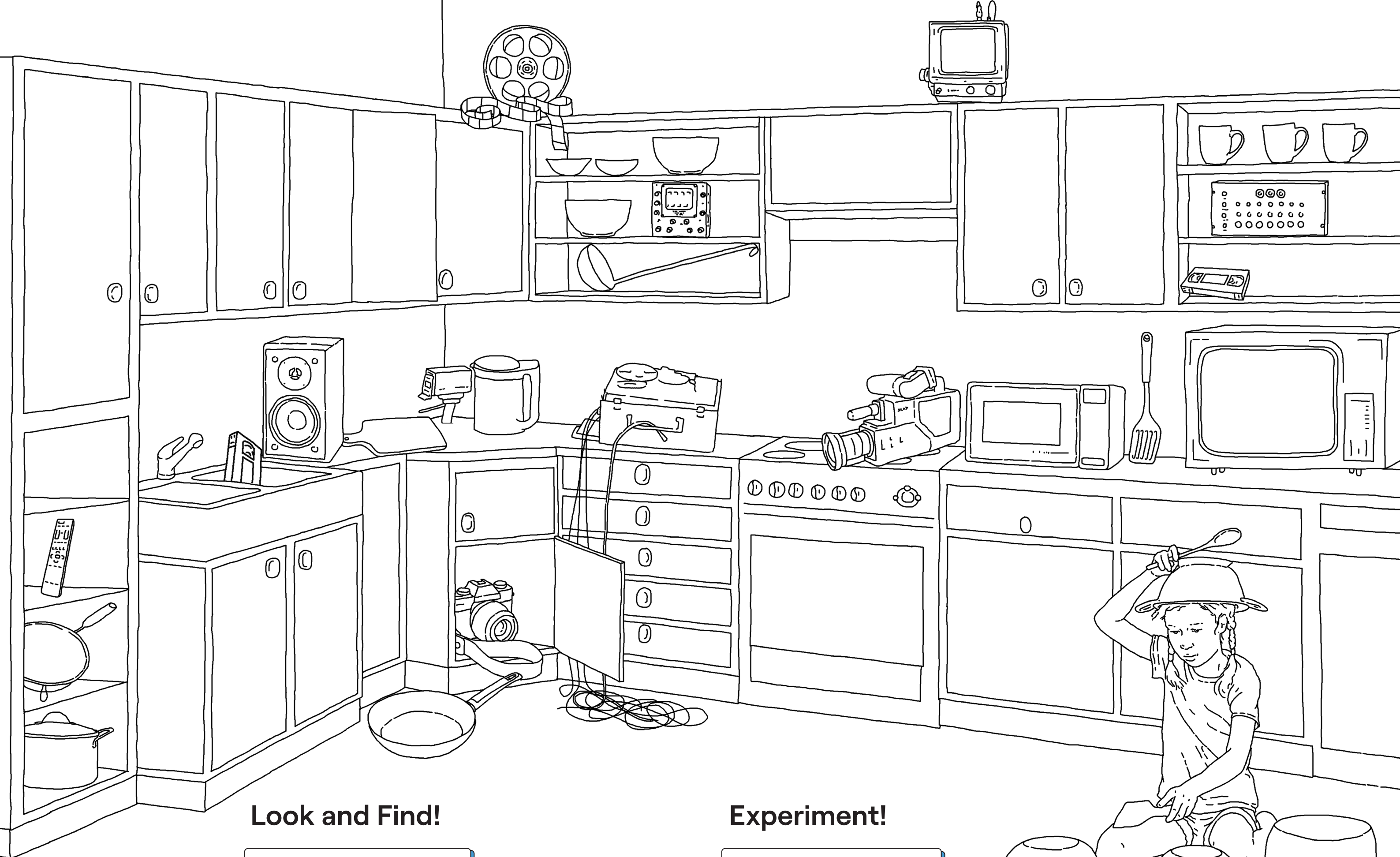
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Kitchen Search Solution - a remote control has taken up residence on a shelf; a VHS cassette is ready to get washed in the sink and there is a speaker just next to it on the counter; a Portapak video camera is lurking behind the kettle and there is a camera in the cupboard below; a VCR is tangled up above the drawers; in the cabinet above it there is one part of a scanning processor, another part of it is on the far right; there is a reel of film on the very top of the cabinets along with a monitor; a video camera is frying on the stove; to the right, under the mugs there is a video synthesizer and below that is a VHS cassette; there is a television on the right side of the counter.





## Look and Find!

Woody's art supplies have taken up residence in the kitchen. There are a few things you wouldn't normally find in a kitchen. Can you tell which ones they are?

## Experiment!

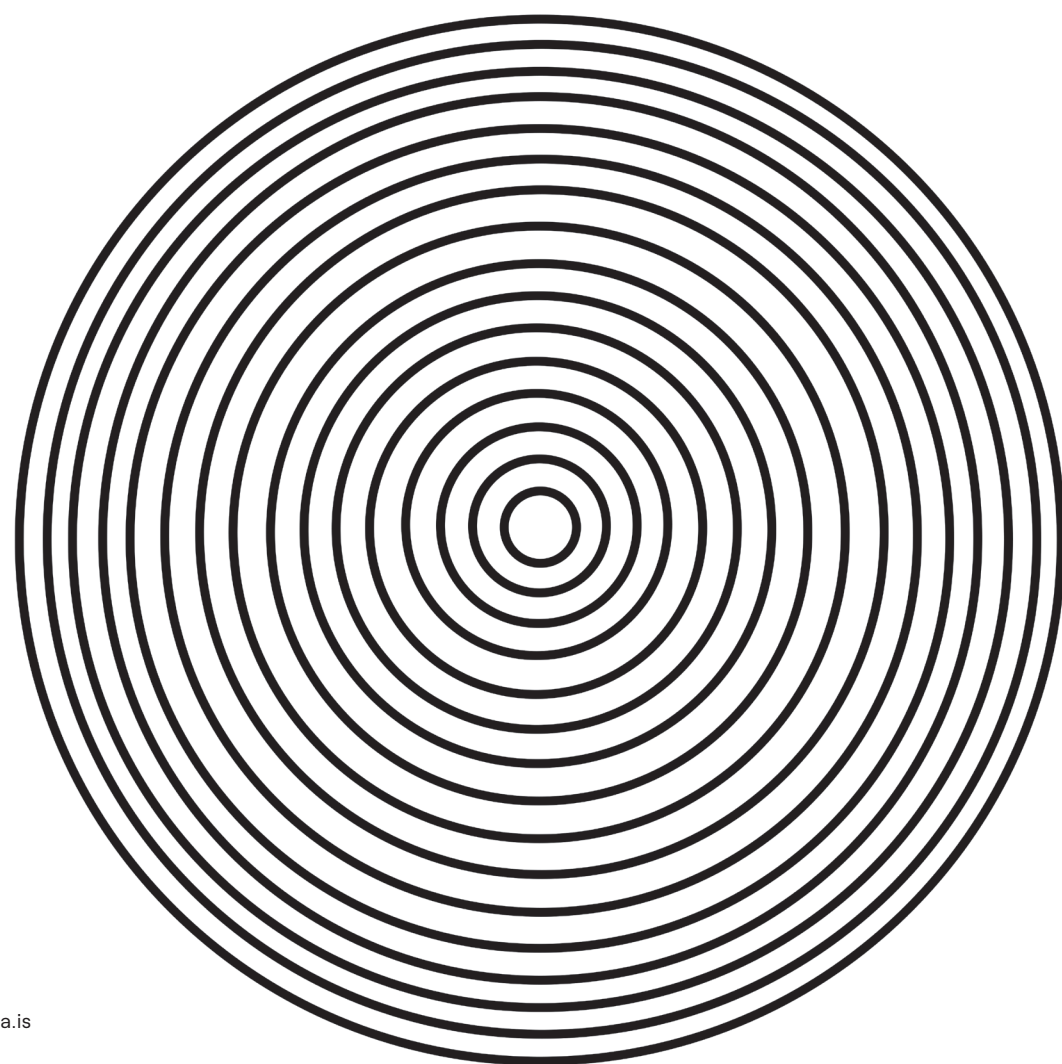
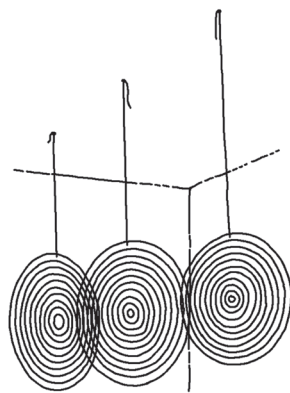
Run to your kitchen and set up a concert for Steina with things you find in the kitchen or at home! Don't forget to experiment! How does pouring water into pots change their sound? Try playing the slowest, quietest or fastest song you can.





# Moiré

Take at least three transparent sheets and gradually trace the concentric circles you see below on them (you can also make your own circles of different sizes, you don't have to trace them), then hang them in space, one after the other, so that you can see through one circle to the next. You can move the hanging circles around and observe the moiré effect.



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Solution to questions on the first page:

- 1) filmstrip, camera, VHS tape
- 2) from Czechoslovakia
- 3) violin
- 4) from Iceland
- 5) in the United States of America  
(in Santa Fe, New Mexico and in  
New York City and Buffalo, New York)

Romana Horáková, Lenka Trantírková  
Graphic design by Lucia Kolesárová  
Photographs by Lenka Trantírková  
Illustration by Romana Horáková  
2020

# What should we play today?

## Bohuslav Woody Vasulka

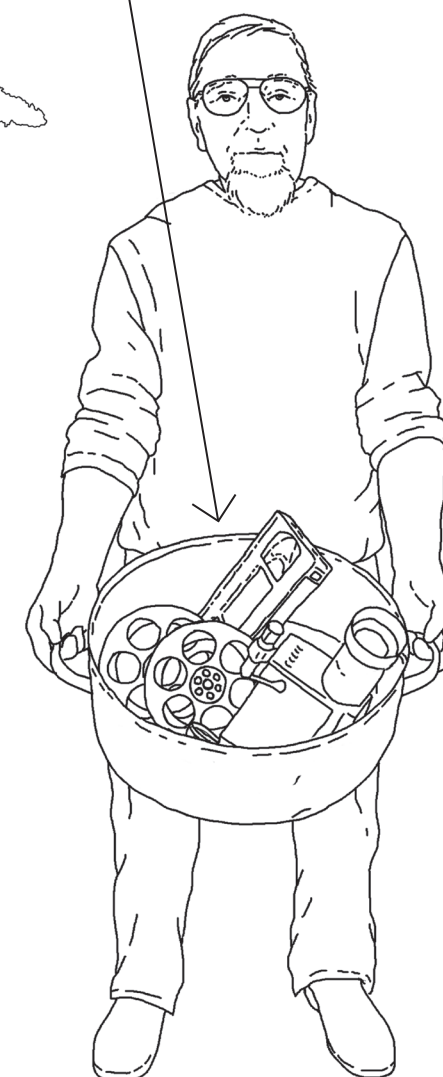
(\*1937 – †2019)

①

Woody and Steina were mainly working on electronic art.  
What types of tools did they need?

②

What country was Woody from?



⑤

Where did they live together?



## Steina Vasulka

(1940, née Steinunn Briem Bjarnadóttir)

③

Steina studied playing the .....  
and experimented with it all her life.  
She even played a digital version  
of this instrument.



④

Where is Steina from?



# The Kitchen

Did you manage to identify what Woody and Steina used for their electronic art on the previous page? If not, take a look at the solution on the back. They experimented a lot with all of these things, you could almost say Woody and Steina played with gadgets, machines and tools all their lives. They studied how they work, and spent a lot of time with them. They also made interesting videos – art that is created using video is called video art\*

But Woody and Steina didn’t just create together, they have also inspired a lot of other artists with their work. In 1971 they co-founded the electronic media theatre The Kitchen in a former hotel kitchen in New York City. It was a space where artists met together, imagined their work and creations, borrowed tools and experimented with them.

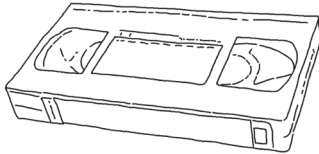
Wednesday nights at The Kitchen were dedicated to open screenings, where anyone could come to show their videotape\*\*.

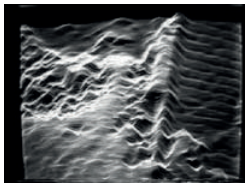

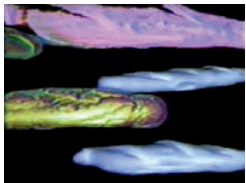



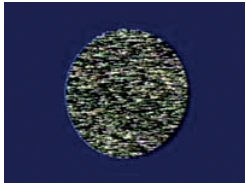

Take a look at the individual videos found under the links in the calendar. Think about which video from your phone you would choose for Wednesday’s screening and want to share with others. Alternatively, you can make a new one...

\* A combination of video and art. Can you describe in your own words what video means? How would you describe what art is? What do you imagine video art to be?

## VIDEO + ART

\*\* Before digital cameras which store information on a chip, data was recorded and stored on a video cassette tape.



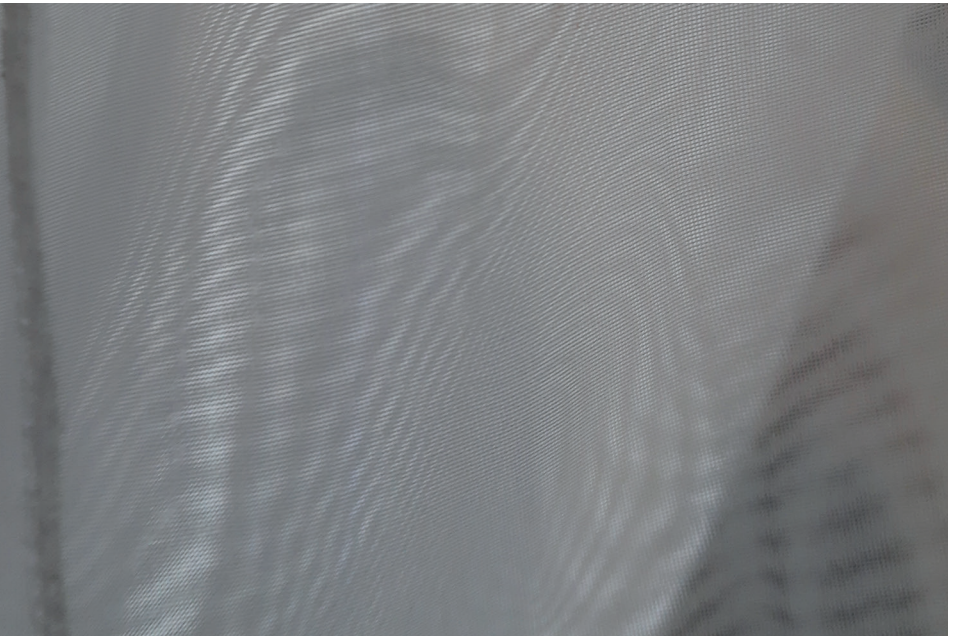
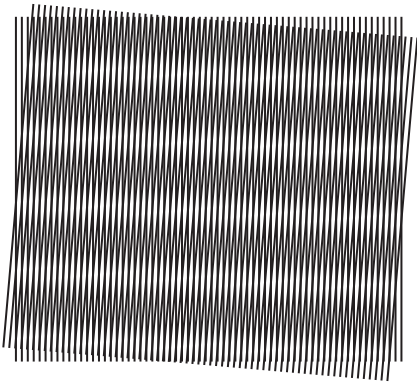
MON	 REMINISCENCE (Woody Vasulka 1974)	Reminiscence means remembering. Woody took his video camera back to his childhood home on his mother’s farm. <div>Watch the video and think about what you might have seen on a farm like this?</div>	
TUE	 GOLDEN VOYAGE (Woody a Stein Vašulka, 1973)	The Vasulkas were inspired to create this video by the painting <i>The Golden Legend</i> by René Magritte, one of the representatives of surrealism. Surrealist artists were inspired in their work by their dreams, for example. <div>Try filming something that you dreamt about using your phone.</div>	
WED	My video Title: .....	Describe what’s in your video: .....	Would you like to share your video? We would be delighted if you send us your video at <a href="mailto:edukace@dum-umeni.cz">edukace@dum-umeni.cz</a> or tag us on the networks <a href="#">@vasulkakitchenbrno</a> .
THU	 VIOLIN POWER (Stein Vasulka, 1978)	Steina often experimented with sound in her videos. Listen to how she altered the sound of the violin in the video. <div>Can you hear them?</div>	
FRI	 NOISEFIELDS (Woody a Steina Vasulka, 1974)	The work <i>Noisefields</i> plays with stroboscopic phenomenon that is characteristic of flickering. In this video, it is created by quickly alternating shots of two different videos in quick succession. <div>You can create a video strobe effect by starting to film the landscape around you and quickly covering and uncover the lens of the phone you’re using to film with your hand.</div>	

Did you like the videos you found in the links? You can explore more at the Vasulka Kitchen Brno – Centre for New Media Art, located at the Brno House of Arts. There you will find, for example, the digital archive of Woody and Steina Vasulka where there are many more videos to discover.

# Moiré

If you watched the videos found under the links on the left, you may have noticed that Woody and Steina worked with many visual effects in their work. You can explore one of them yourself. It’s called the moiré effect.

The moiré effect is created, for example, by superimposing one image with transparent gaps over another similar image. The two images should not be exactly the same, but rather shifted, rotated, or slightly different.

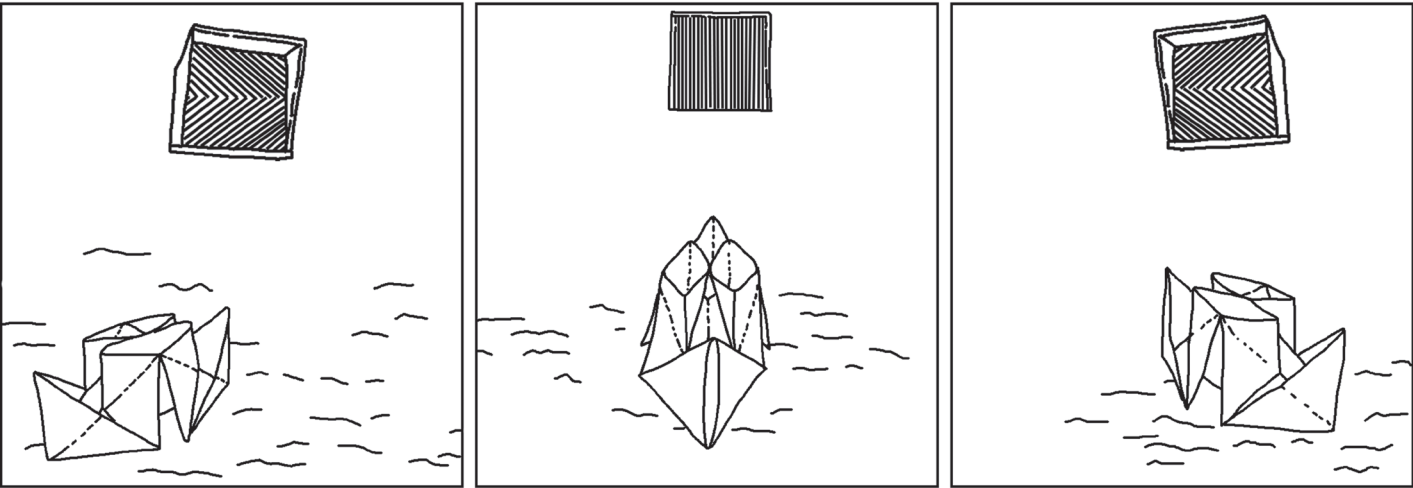


Find a piece of transparent curtain at home that doesn’t have too many holes in it, or a window screen. Split it in half and lay the two pieces on top of each other. Try moving the top part. You should see fine ripples like in this image.

This effect is most often seen when taking photographs or filming. Most professionals try to avoid the moiré effect because they consider it a mistake. But after all, working with error and discovering possibilities is important, otherwise no one would ever discover anything. Even Woody and Steina have been explorers all their lives with their experimental approach: for example, the sensor chip in a digital camera, on which photos and videos are recorded, can be affected by a distinctive clothing pattern.

## Interesting fact

The moiré effect is also used when navigating ships to port. There is a large marking on the shore consisting of two overlaid grids. When the ship is to the left of the harbour, the marker shows a right arrow pointing towards the harbour. When the ship is coming exactly on the harbour, it will see vertical lines and when from the right, it will show an arrow towards the left. It’s a clever solution to marking without using electricity.





Come experiment with us with your mobile phone and „handheld” effects. Try our ideas, add your own and try to fill in our „effects chart”. And remember – even failure in experimentation can teach us something and, more importantly, be entertaining!

WHAT EFFECT IS CREATED WHEN...	IT WILL MAKE AN EFFECT ...
I film through a plastic bag	as if I'm filming in the fog
	as if everything would turn blue
I shine the flashlight perpendicular to the camera	
	like a fisheye
I shoot through the lenses of my sunglasses	
I spray the mirror and shoot the reflections, that I can see in it	
I shoot through a jar of pickles	

\* In the year 2019 famous film director Steven Soderberg shot the feature-length film High Flying Birds on his iPhone.

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Do you want to check out some creative and perhaps somewhat unusual apps? Try these, for example:

PRTCL  
synthPond  
Record Makers  
Blek  
JD Reflect  
Satromizer  
abcdefghijklmnopqrstuvwxyz  
Glory Math  
HumOn

Are you interested in electronic art? Would you like to study it? Explore our tips on high schools that might interest you:

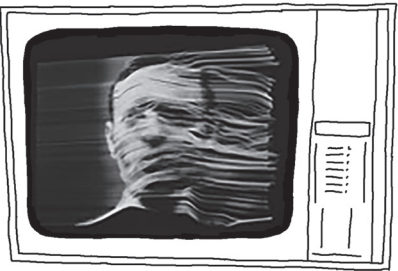
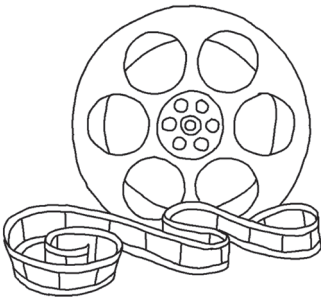
SUŠG Jihlava  
SŠUD Brno  
SŠUM Brno  
Creative Hill College Zlín  
Michael School Prague  
Secondary Industrial School of Communication  
Technology Prague  
SUPŠ Uherské hradiště  
Higher Vocational School and Secondary School of Art  
Václav Hollar School  
Secondary School of Arts and Crafts Ostrava

Romana Horáková, Lenka Trantírková  
Graphic design by Lucia Kolesárová  
Photographs by Lenka Trantírková  
Illustration by Romana Horáková  
2020

# What is digital? And what is analogue?

## VIDEO x FILM

You may know that film used to travel to the cinema on large reels of film stock. That's how analogue film was made. Video, originally a format designed for television broadcast, can also record moving images digitally. The recording is converted into data and signals that are much easier to edit and manipulate in various ways. The word „film” can represent the name of a specific work, such as the film Kolya, but also we mean one of the ways of recording a moving image.



## VIDEO ART

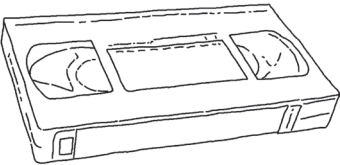
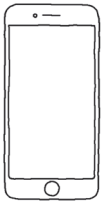
Video art is an artistic movement using video and audio data. It was originally created on an analogue principle, but over time and the development of technology it has become digitalized. A video art exhibition can be imagined on TV monitors, as a gallery projection, or even on a phone screen.

Have you ever come across a video on YouTube that you thought had artistic qualities? Would you call it video art? Try to think about what the term „artistic quality” means to you.



## PORTA-PAK

The name of the first portable and battery-powered video camera, launched and marketed in 1967 by Sony. Earlier devices were large and heavy television cameras, which were very expensive. With the more affordable Porta-Pak, video technology became available to a much larger number of people and video art took off! \*Steina and Woody acquired a Porta-pak in 1969.

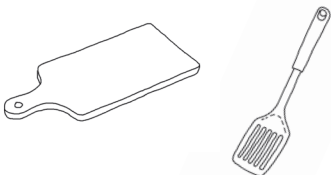


## ANALOG x DIGITAL

In the case of video, these are different ways of recording the moving image. The analogue camera is older, it converts the captured image into an analogue signal and stores it on magnetic tape. In this way, a video is produced, for example, on VHS cassettes. A digital camera is newer, it converts the image to a digital signal (also referred to as ones and zeros) and stores it on a memory card, for example. You probably have a small digital camera in your pocket right now... yes, you guessed right, it's hidden in your cell phone.

## DIY SOMETHING

To make or repair something at home through improvised means – simply to tinker.



Steina Vasulka was born in 1940 in Reykjavik, Iceland. Bohuslav Woody Vasulka was born in 1937 in Brno.

The Vasulkas first met in Prague during their studies. Woody studied film, Steina studied violin. In 1960 they got married and five years later they moved to New York.



## The Kitchen

In 1971, they co-founded The Kitchen, an electronic media theater in a former hotel kitchen in New York’s Greenwich Village. This created an independent space for artistic experimentation of all kinds. The Vasulkas’ main focus here was on electronic media. They met a variety of other artists and provided a haven for them by lending them equipment or allowing them to install their exhibitions. The Kitchen, now in a different space, is still in operation. You can explore their current programme at this link: <https://thekitchen.org/>

For example, one of the first concerts at The Kitchen was played by the famous Beastie Boys...look them up!

## Vasulka Kitchen Brno

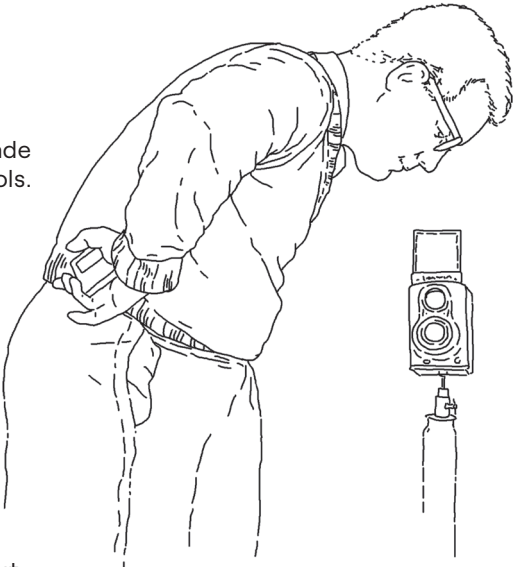
In 2018, another Vasulka Kitchen called the Center for New Media Art opened at the Brno House of Arts. You can come to the Brno Kitchen for an exhibition, a lecture, a workshop or even a concert. If you are interested in the Vasulka’s work, you can also take a look at the extensive digital archive, which contains many interesting videos...

## Collaboration

Collaboration was essential for the Vasulkas. Not only with one another, but with other artists, often friends, as well. Their „tinkering”, which usually took place directly at the Vasulka home, created a space for sharing. They didn’t consider themselves artists in the classical sense and in doing so maintained a great deal of creative freedom.

## Love of Tools

The tools that were used to create their artworks were often constructed and made by the Vasulkas themselves. They shared a large part of their home with those tools. Some say that the Vasulkas have been playing with tools all their lives.



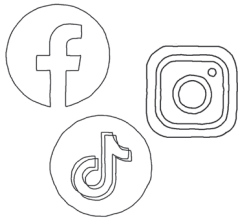
## And what did they actually make?

The Vasulkas began creating at the beginning of the technological revolution in art, making them pioneers and legends of electronic art. Their work deals with the relationship between humans and technology, the interconnection of image and sound, and developments in computer technology and robotics. Steina interacts with new media using her violin and creating multimedia installations. They’ve made many experimental video works together.

## What is a video filter?

You’ve probably come across a video filter before. It’s usually used to give the original video a look that can’t be achieved with a regular camera or other device.

Do you have any idea where such video editing is commonly used? For example, on social media sites, the use of a video or photo editing app is very common. But it’s worth pausing to consider why we use filters in these environments. Try to think about how such filters could be used in a really creative way.

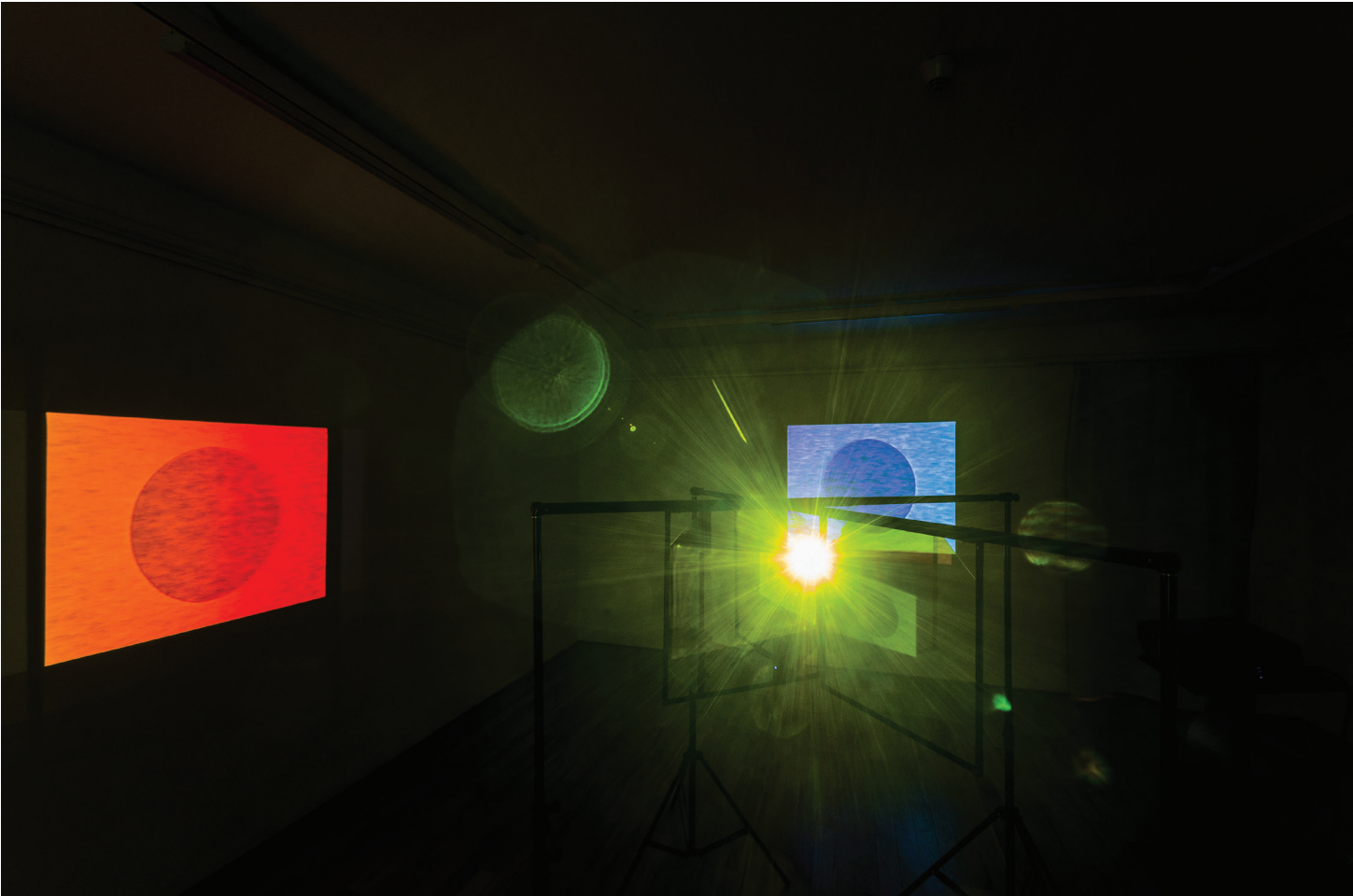


Do you think you could use a filter to express a scent in a video, for example? You could try it.

Try taking a photograph or recording a video with your cell phone sometime. One day you could take pictures only of what’s white, the next day what’s transparent, and the next day what’s behind your back.

We’ve got a real challenge for you – try experimenting with image effects without using any of the filters your phone has. Sounds weird, we know. But you can also create such effects just by hand : ) You can achieve interesting results by shooting things through different materials or simply by moving the camera quickly. And what would be the theme of your experimental video?

## LIGHT REVISITED\*



Installation LIGHT REVISITED – NOISEFIELDS (1974, 2002), photo: Miloš Strnad

Share your creations online and tag Vašulka Kitchen Brno (@vasulkakitchenbrno).

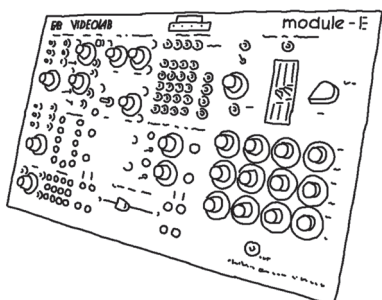


## VIDEO PROCESSING

Video processing uses hardware, software, and combinations of these to edit images and audio recorded in video files. In general, this type of video processing is understood as a field in which the intrinsic properties of the medium are explored and the artist works directly with the signal or code. This direction originated through the exploration of signal errors, which artists then tried to mimic to achieve desired effects.

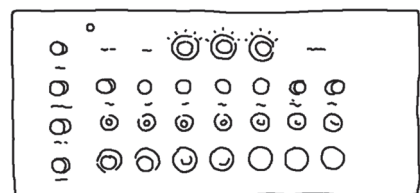
### Audio synthesizer

A synthesizer or „synth” is an electronic musical instrument that creates a resulting sound through what is known as synthesis. These instruments, which dictate the sound of today’s music, have undergone a great deal of development. A synth can be thought of as a large and heavy analogue modulator, but also as a computer program available to everyone.



### Colorizer

Yet another option for video image manipulation, here the user can select colors with specific intensities and the areas in which to place them via the colorizer in real time. The results are typically vivid and saturated image colors.



### Keyer

This image processing tool allows you to manipulate multiple image layers simultaneously. The instrument works by comparing voltage or brightness values and it is possible to „cut out” parts of the image and replace them with others in real time.

### Video synthesizer

A video synthesizer is a device that, like its audio version, electronically generates a signal. It is capable of generating a variety of visual materials without camera input using internal video pattern generators, and produces a wide variety of images using purely electronic manipulations. It can also take in and „clean and enhance” or „distort” live camera images.

### Programmer

Since the complexity of manipulating video output required automating processes, a programmable tool capable of storing and executing different sequences of operations was developed. Thus the Programmer was created, which could, for example, control the operation of the keyer, store operational sequences in memory, and activate them at any time.

Are you interested in electronic art? Explore our tips on how to further your studies:

#### Universities

FAMU Centre for Audiovisual Studies  
<https://cas.famu.cz>

AVU/Studios of Intermedia and New Media  
<https://www.avu.cz>

FaVU/intermedia studios  
<https://www.favu.vut.cz>

OU Faculty of Arts/Department of Intermedia  
<https://fu.osu.cz/kim/>

FUD/Department of Electronic Image  
<https://fud.ujep.cz/>

FAMO  
<http://www.filmovka.cz/cs/famo>

UTB Zlín/Faculty of Multimedia Communications  
<https://fmk.utb.cz/>

#### Additional resources in addition to the Vasulka Kitchen Brno program...

Bastl Instruments/workshops and DIY tutorials  
<https://bastl-instruments.com/>

Synth Library Prague/courses and workshops  
<http://www.zvukpraha.cz/synthlibraryprague/>

## What’s cooking in the Kitchen?

### Vašulka Kitchen Brno

In 2018, Vasulka Kitchen, a New Media Art Centre, was opened at the Brno House of Arts. The center was founded by an association of the same name whose goal is to map and commemorate the work of Brno native Bohuslav Woody Vasulka and his Icelandic wife, Steina including their

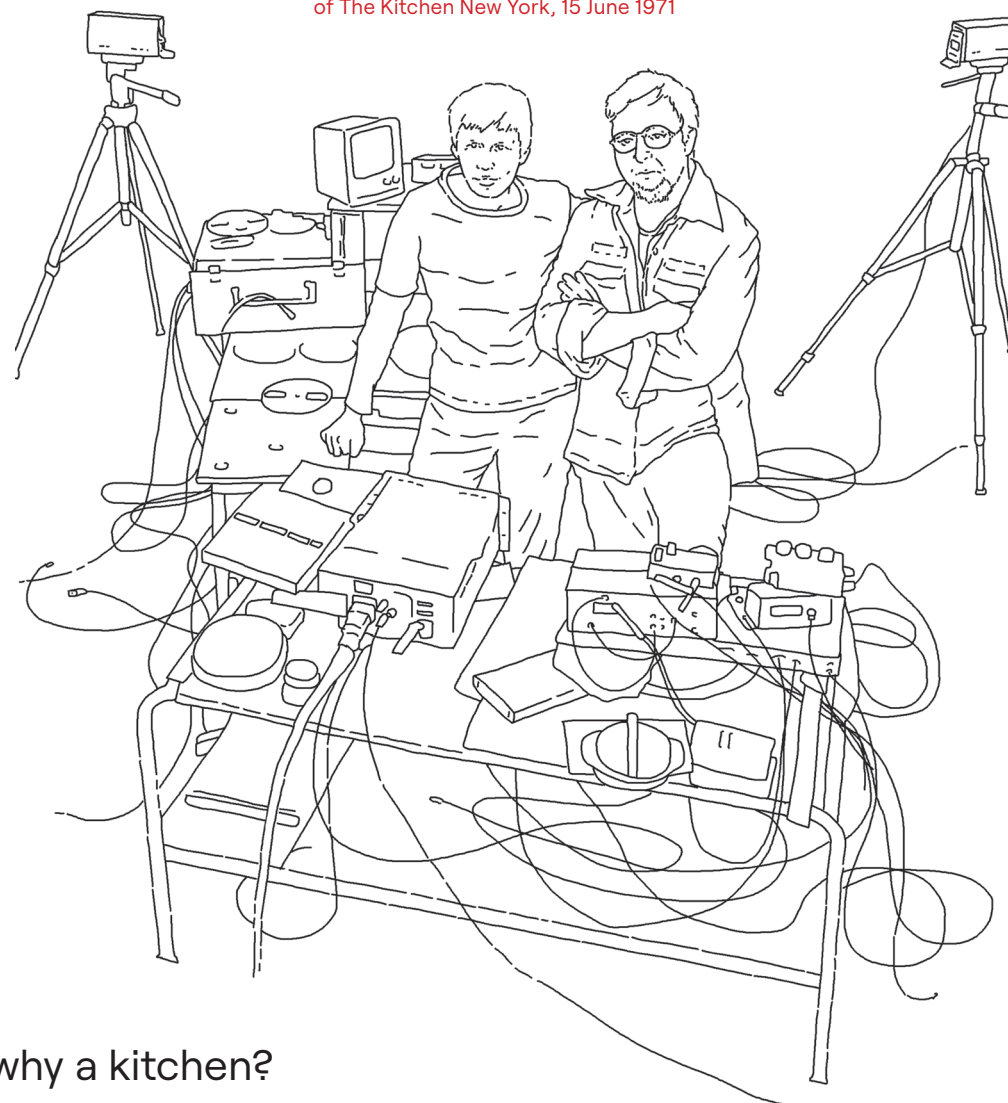
influence on the youngest generation of artists. You can visit Vasulka Kitchen in Brno, Czech Republic to see an exhibition, attend a lecture, workshop or even a concert. If you are interested in the Vasulkas’ work, you can also have a look at their extensive digital archive.

**Steina Vasulka**  
\*1940, Reykjavík

**Bohuslav (Woody) Vasulka**  
\*1937, Brno †2019, Santa Fe

“This place was selected by Media God to perform an experiment on you, to challenge your brain and its perception...”

Manifesto written by Steina for the opening of The Kitchen New York, 15 June 1971



### And why a kitchen?

The Vasulkas along with Andreas Mannik founded The Kitchen, an electronic media theatre in a former hotel kitchen in New York’s Greenwich Village in 1971. They created an independent space for

artistic experiments of all kinds. The Vasulkas focused primarily on electronic media and soon became acquainted with numerous artists performing a wide range of activities

and provided a haven for them, for example by lending equipment or providing exhibition space. The Kitchen, now located in a different space, is still in operation today.

Romana Horáková, Lenka Trantírková  
Graphic design by Lucia Kolesárová  
Photographs by Lenka Trantírková  
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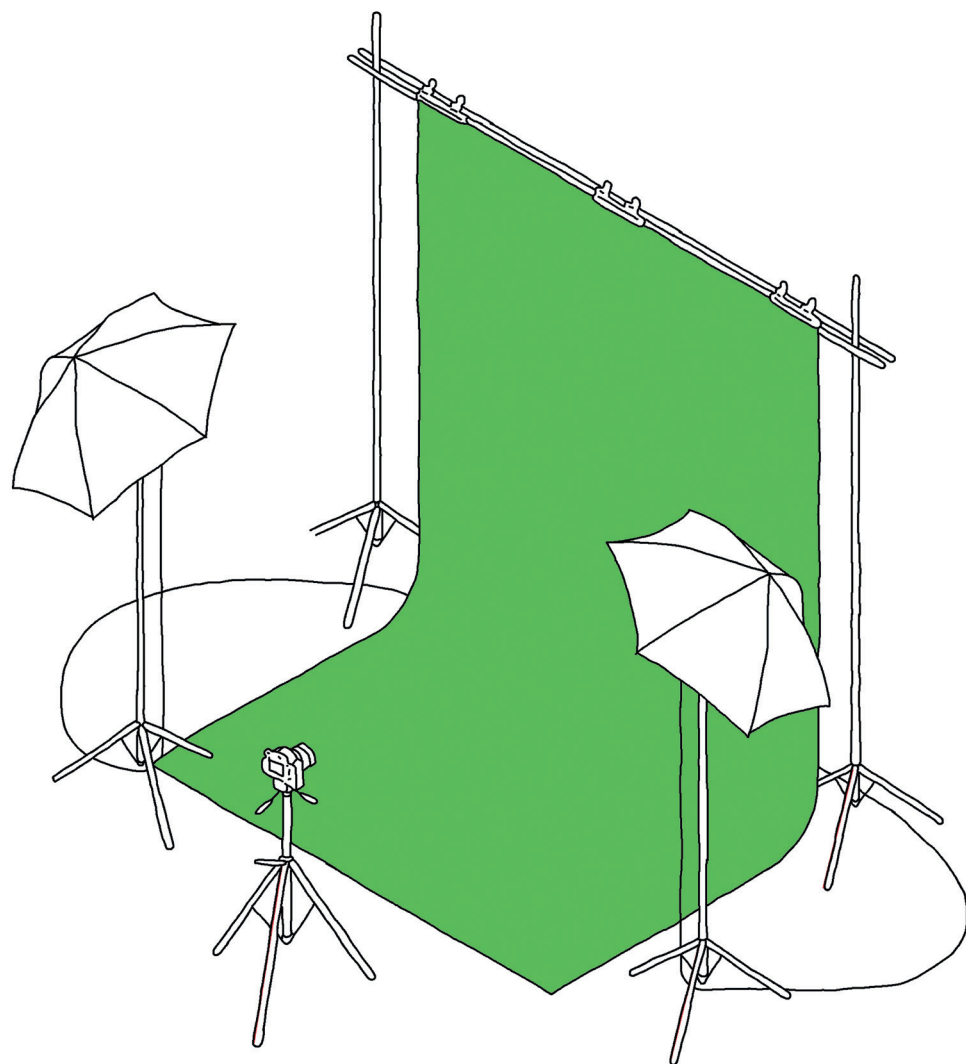


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Supported through the Ministry of Culture and the statutory city of Brno of the Czech Republic, the Thoma Foundation, BERG Contemporary, The Museum Council of Iceland





## Key yourself!

**Green screen** (or color keying\*) is a technique of compositing two image layers into a final video or photograph. The first layer consists of an actor or subject in the foreground in front of a special evenly lit sheet of a particular color. The second layer is the (resulting) background. This technique allows the actor or subject to be „added“ to the background scenery, which either does not exist in real life or would be too expensive or impossible to film on location.

The colored screen is usually green (hence the name of the technique), but it can also be a deep blue, which is used extensively in studios or newsrooms. It is essential that the subject or actor being filmed in front of it does not wear or contain the same colours as the screen.



\*viz pojmy na zadní straně

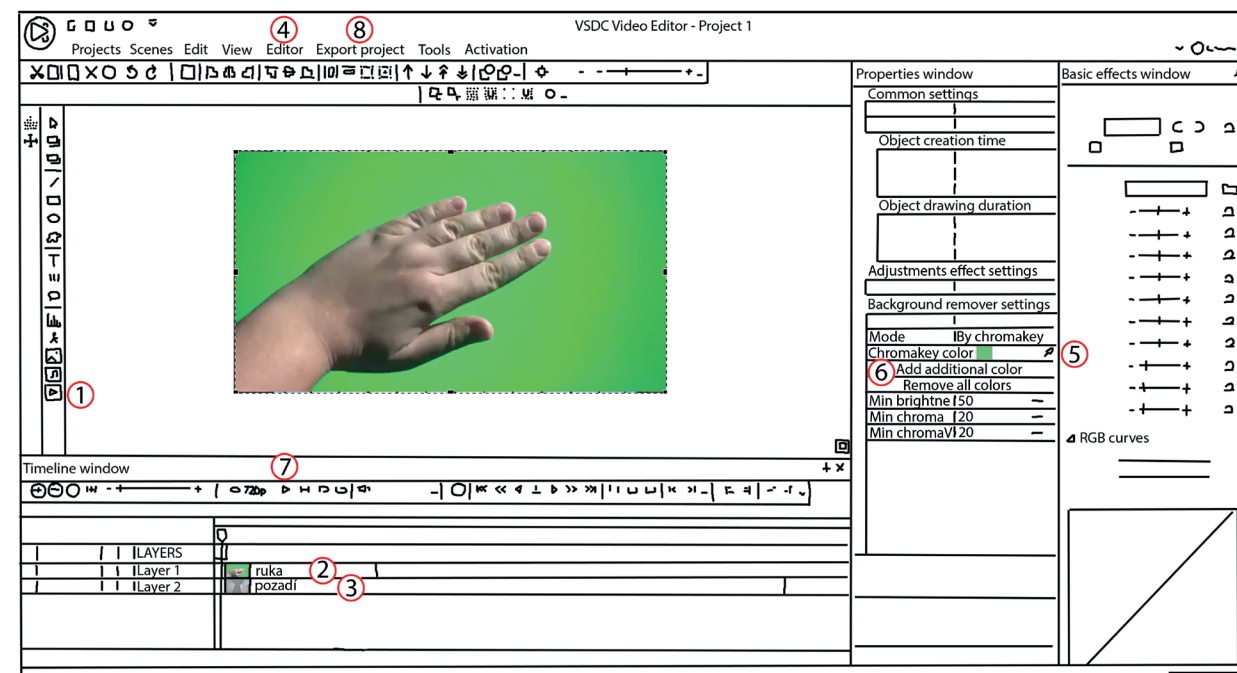
Come try your hand at creating a video using this technology and explore how keying works.

We will only need two things – any video recording device, such as a mobile phone and a computer with an internet connection and VSDC Free Video Editor software installed. Download it here:



- We'll shoot a video first, which we'll key later. For this we will need the green screen mentioned above. You can create one at home using green cloth or green colored paper, but in this case we also need to light the whole scene very well so that the object we are filming creates as few shadows as possible. For us, a green screen on a computer screen is enough – just create a bright green area in a program like Paint, or simply type „green screen“ on YouTube and zoom the selected video to full screen.
- Let's say we want to film our own hand waving. We rotate our hand in front of a green computer monitor, making sure to take in only the hand and the green background.
- We download the finished video (let's call this video „the hand“) to the computer.
- Prepare a second video (we'll call this one „the background“) to combine with the first one. You can use any video you have previously shot and have saved in your set up or shoot a new one.
- Now let's get to the post-production! Open the VSDC Free Video Editor. When the window opens in the top left, select *Blank project* → *finish*

A green screen (or, in the case of the Vasulkas, a keyer\*) was used, for example, in their 1973 work VOCABULARY, where electronic textures are interspersed with the image of a sphere and Woody's hand moving over it. This is an important work that shows their early approach to working with video, echoes of which would appear in later works. You can watch the video here:



- In the column on the left, click on Add video (1)→OK and select the background video on your computer first.
- Follow the same procedure and insert the *hand* video. Make sure the video *hand* (2) and the video *background* (3) are each in their own layer (the *hand* should be on top). Adjust if necessary by dragging and dropping.
- Click to select the video *hand* (2) and go to key. At the top, select *Editor* (4) → *Video effects*→*Transparency*→*Background remover*→OK
- *Background remover settings* open on the right and we click on the dropper image (5) to „grab“ the green color from the hand video window. At this point, we're almost done. We can see that the green color has disappeared and the video *background* has appeared. However, we probably have some green spots left, which we can improve by changing the numerical values in the settings (6) (We recommend to try raising the *Min Chromacity Threshold* value or using the *Add Additional Color* dropper to select more green shades).
- We can check the resulting video by clicking on the play button (7).
- Now all that's left to do is to export the video. At the top we select *Export Project* (8), here we can choose what format and where to save the video. Once again at the top, click *Export Project*→*Continue*. Done!

We would be delighted if you send your video to us at [edukace@dum-umeni.cz](mailto:edukace@dum-umeni.cz) or tag @vasulkakitchenbrno on your social networks.

„Art has never, not a day, been without technology. From the man who chipped stone with tools, to the painter who used oil paints to paint a picture, to the musician and his instrument, all have used technology. Now, in this century, we are using technology that matches this century. Art will always lead us to use the technology of our time. The need to use technology for artistic creation has been there since time immemorial.“

Steina Vasulka