



VIAN WebApp User Manual

Table of Contents

PROJECTS

1.1. Introduction

- 1) Connect to the VIAN WebApp 4
- 2) User charts and contents 5

1.2. Concepts

- 1) Concept of VIAN 6
- 2) Concept of the VIAN WebApp 7
- 3) Evaluating the analysis data on a meta-level 8
- 4) Two different types of data reference 9

2.1. Find the Projects

- 1) Two display modes 11
- 2) Search by a specific film title 12
- 3) Search by conditions 13
- 4) Structure of the project page 14

2.2. View Analysis Data on Film: Segmentation

- 1) Concepts of segmentation 15
- 2) Descriptions of tools 16
- 3) Available information 18

2.3. View Analysis Data on Film: Visualizations

- 1) Color concepts 20
- 2) CIE-L*a*b* color space 21
- 3) Color Histogram 23
- 4) Color Palette 24
- 5) Descriptions of Visualizations 25
- 6) Color dT 26
- 7) Color CIE-LAB (AB-Plane/LC-Plane) 28
- 8) Color Palette CIE-Lab (AB-Plane)/ Histogram (AB-Plane) 29
- 9) Annotation on Timeline 30

QUERY

3.1. Find Analysis Data linked to Keywords

- 1) Descriptions of features 33

3.2. View Analysis Data linked to Keywords

- 1) Color Visualization 35
- 2) Color dT 36
- 3) Projects 37
- 4) Segments 38
- 5) Screenshots 39

CORPUS MANAGER GLOSSARY

4. Get to Know Vocabulary

- 1) Search a keyword 41
- 2) Structure of the keyword page 43

5. Manage Film Corpora

- 1) Create the own corpora 45
- 2) Two display modes 46
- 3) Find projects 47
- 4) Edit corpus (add projects) 48
- 5) Edit corpus (delete projects) 49
- 6) Delete corpus 50
- 7) Duplicate corpus 51

6. Change the Display mode

52

7. Usage Examples

- 1) Explore a single film work in detail 53
- 2) Find specific scenes for analysis 55
- 3) Compare the color palettes 56

INTRODUCTION:

Start VIAN WebApp

1.1. Introduction

- 1) Connect to the VIAN WebApp
- 2) User charts and Contents

1.2. Concepts

- 1) Concept of VIAN
- 2) Concept of VIAN WebApp
- 3) Evaluating the analysis data on the meta-level
- 4) Two different types of data reference

The **VIAN WebApp** is available within the university network, so accessing it from outside requires a VPN connection.

To access the VIAN-WebApp, two things are necessary:

- 1 Access to the UZH Network with a UZH email account
 - 2 Predefined sign-in credentials
-

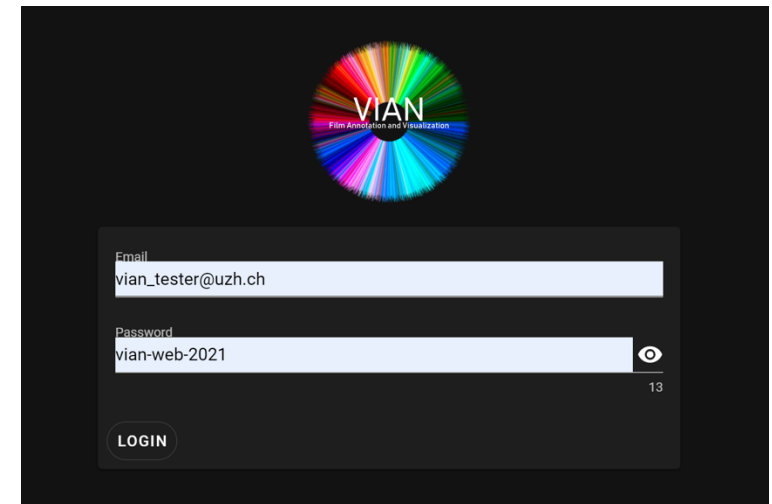
1 Connect to the university network (**uzh/uzh-5GHz**) or set up a VPN connection for external access:

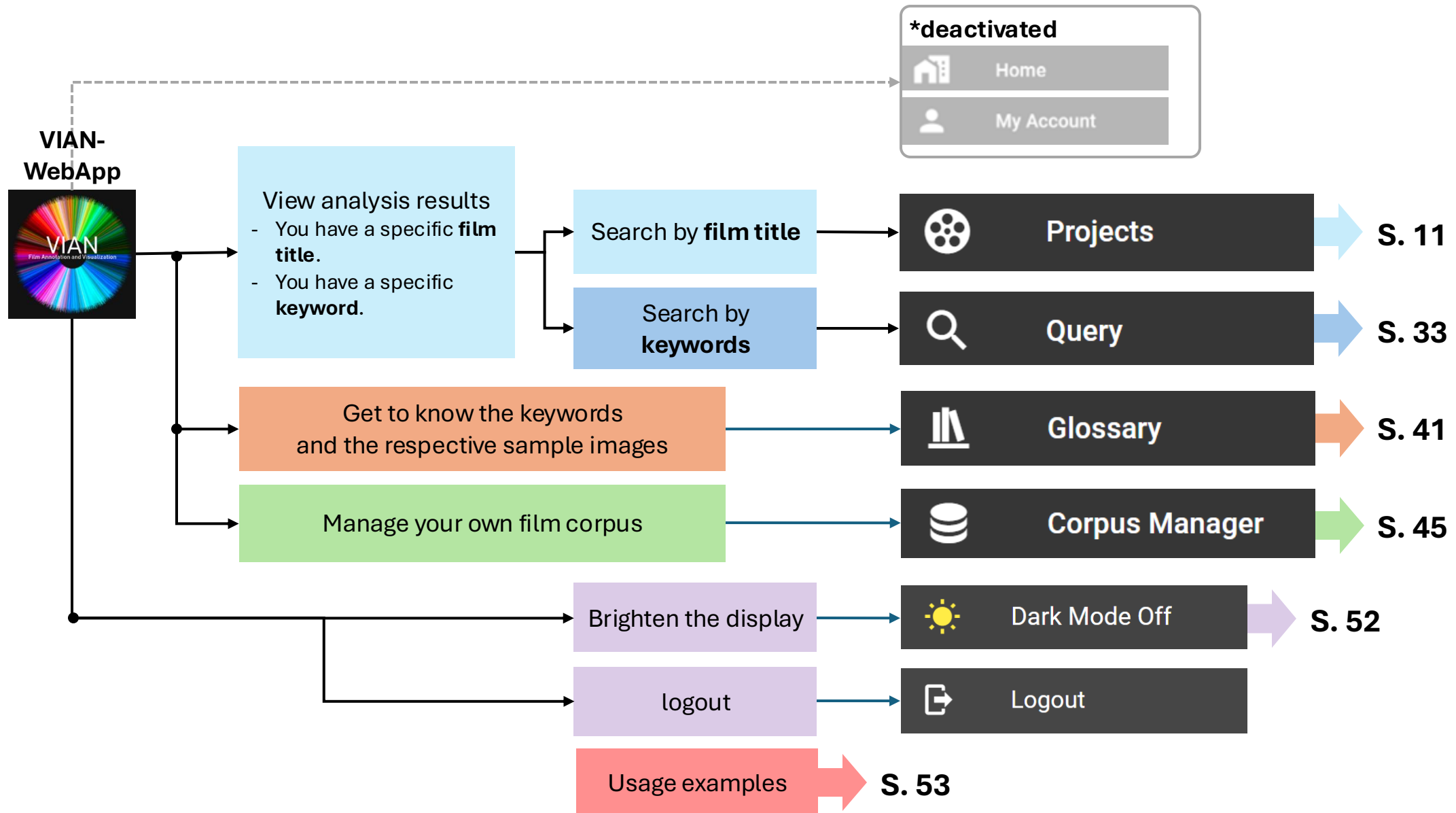
- [UZH VPN Support](#) (German)
- [UZH VPN Support](#) (English)

2 Enter the following **login credentials**:

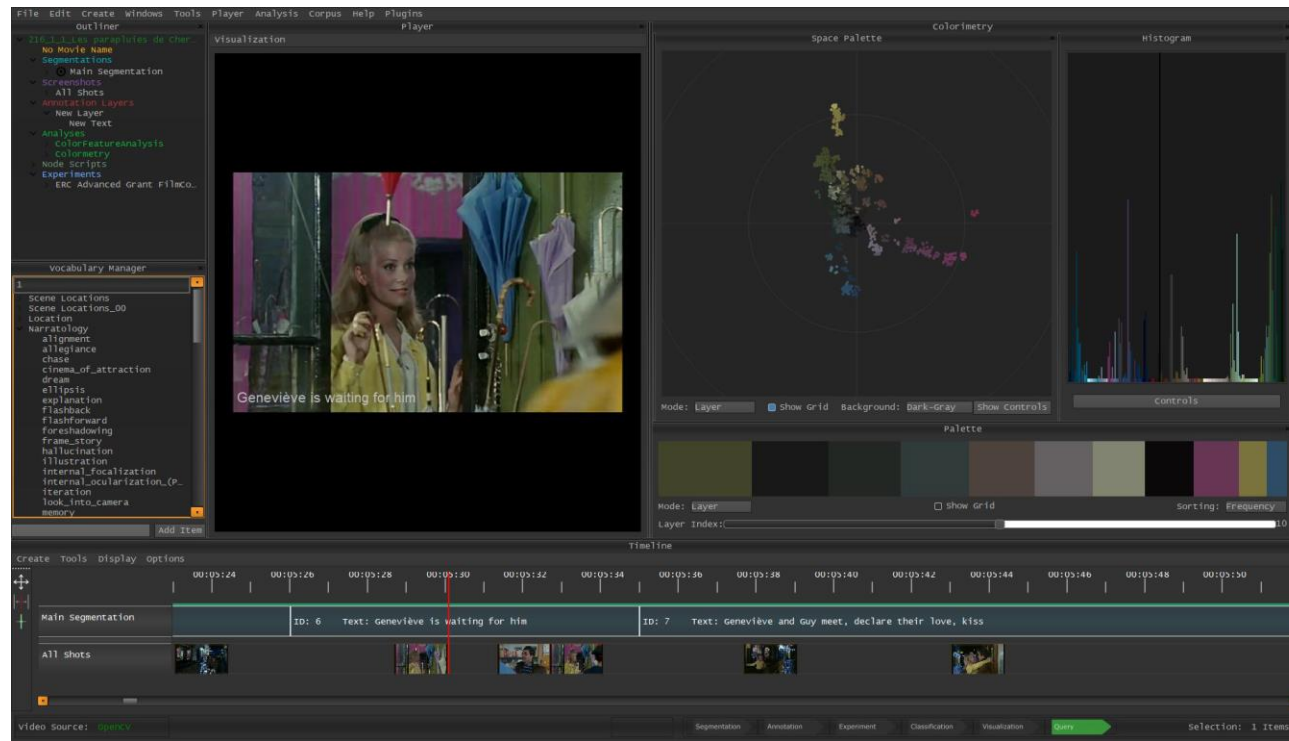
E-mail: vian_tester@uzh.ch

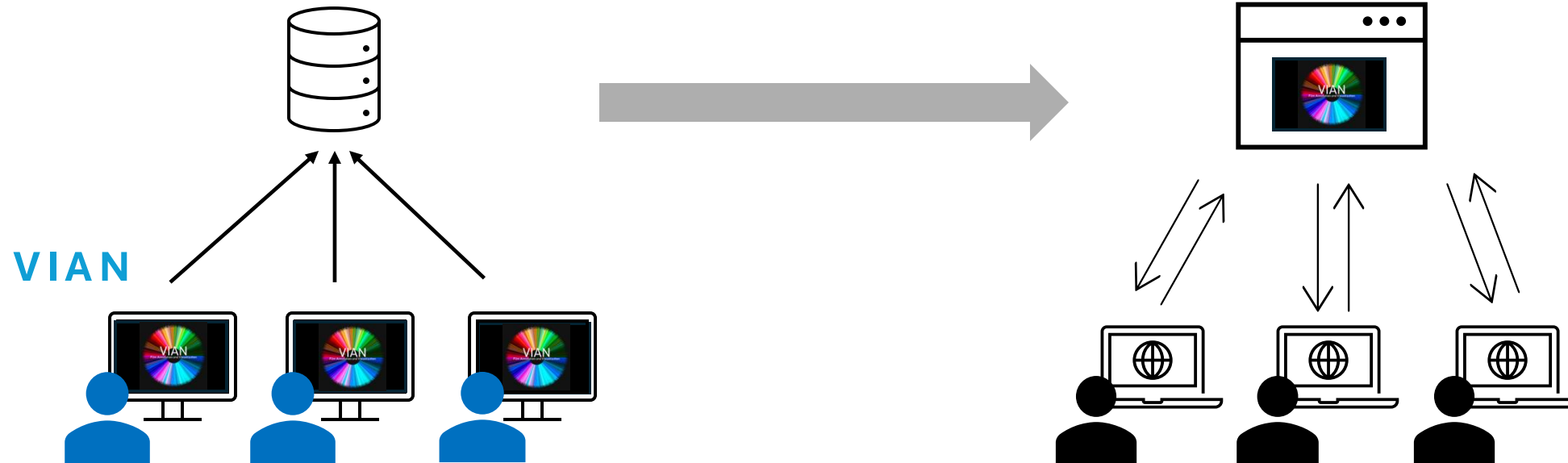
Password: vian-web-2021





Although colors play a crucial role in film, existing digital tools often fall short when it comes to analyzing them comprehensively. VIAN, a film annotation tool, fills this gap by providing interactive annotation with extensive vocabularies, spatio-temporal selection, and the ability to classify meaningful color features based on context and quality. The application allows users to differentiate between key visual elements such as backgrounds, protagonists and supporting characters. By segmenting these elements, VIAN minimizes the loss of semantic information during feature extraction, improving the accuracy of qualitative analysis in research activities.

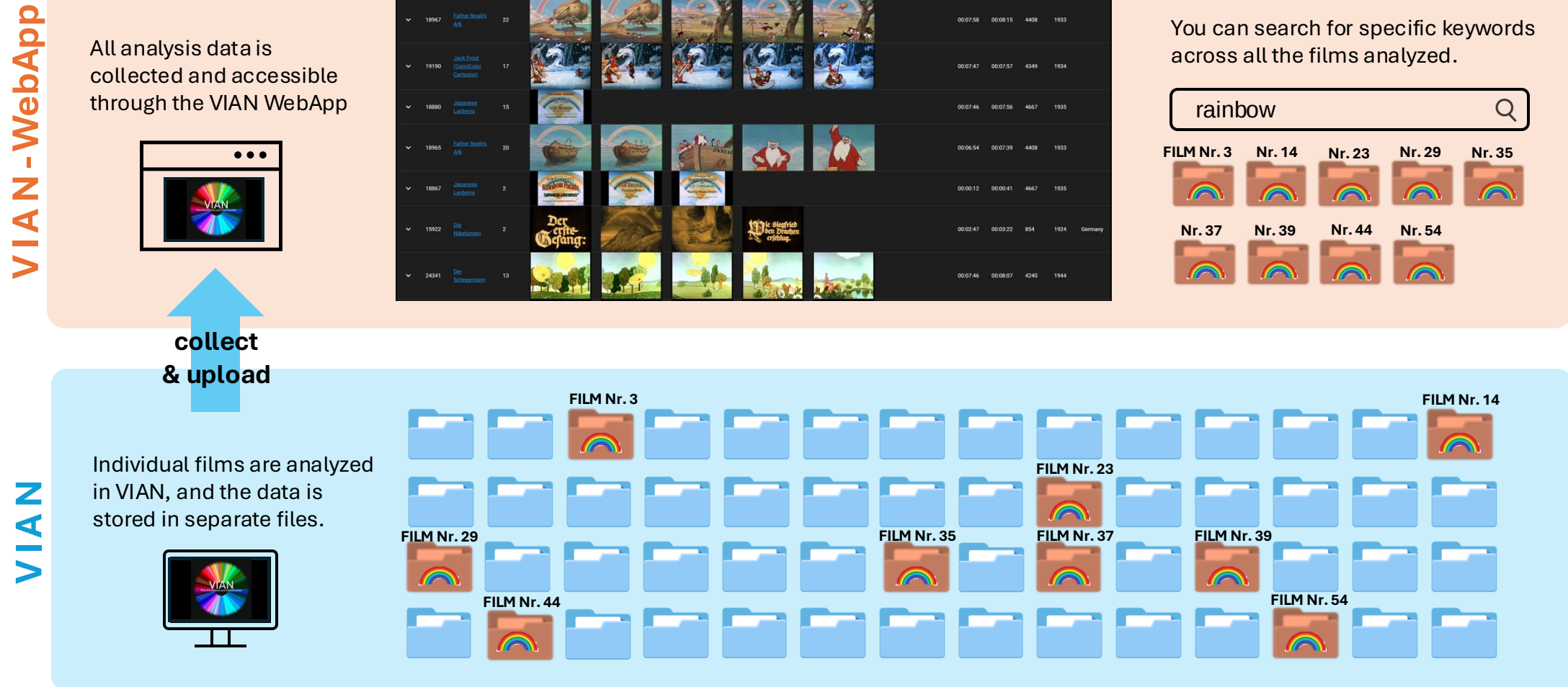




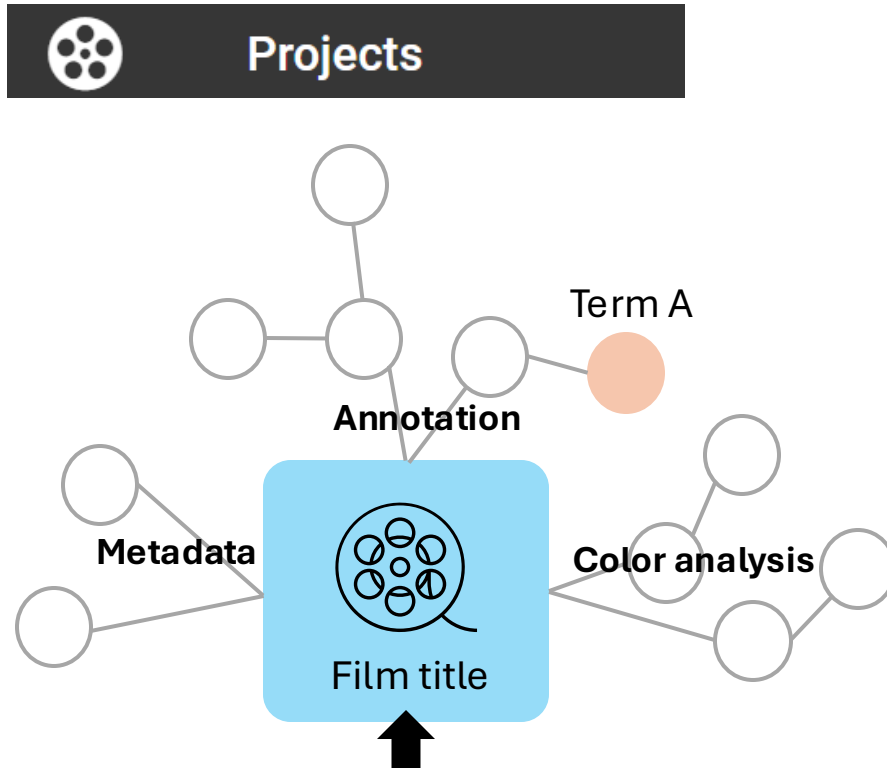
The VIAN WebApp database consists primarily of data from researchers at UZH who used the video annotation tools **ELAN** and **VIAN** to analyze more than 500 films in detail.

The VIAN **WebApp** provides access to the analysed data. Because it is available as an aggregated database containing data from all films, users are able to explore the data on a meta-level beyond individual films.

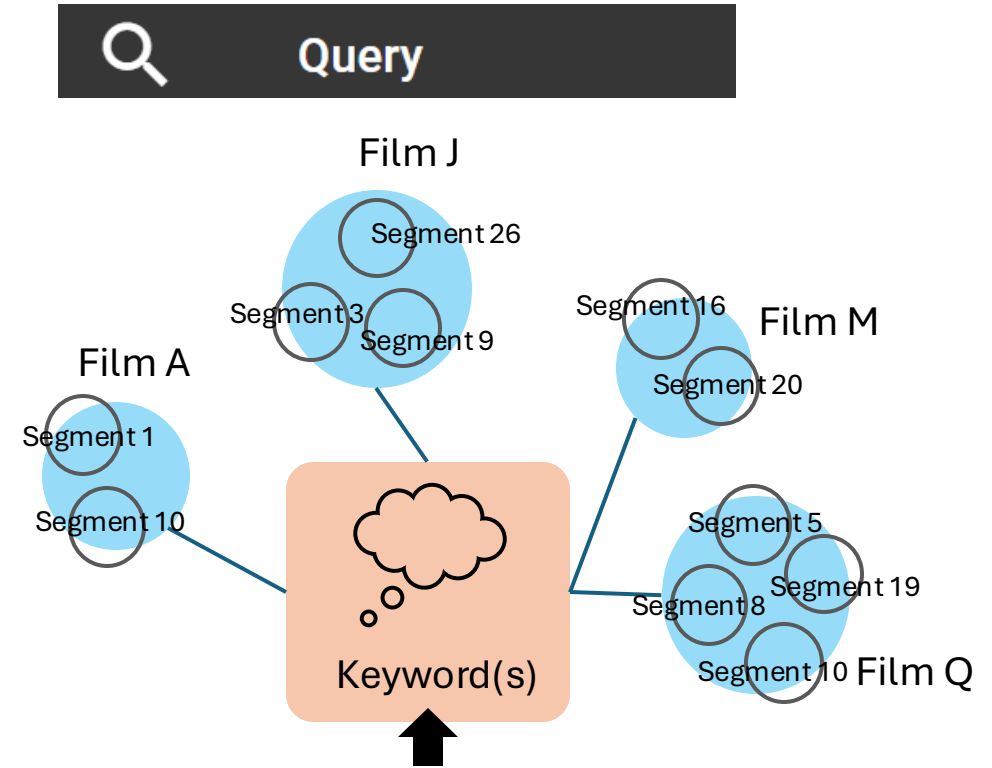
For example, searching for the keyword “rainbow” will bring up a list of all the films in the database where a rainbow appears, along with screenshots of the specific scenes.



The results of the analysis can be accessed in two ways: through a **title search** or a **keyword search**.



View the results of various analyses for **individual films**.



Find the shot, scene, or film tagged with specific **keywords**.

PROJECTS:

Search by film titles

2.1. Find the Projects

- 1) Two display modes
- 2) Search by film title
- 3) Search by conditions
- 4) Structure of the project page

2.2. View Analysis Data on Film: Segmentation

- 1) Concepts of segmentation
- 2) Descriptions of tools
- 3) Available information

2.3. View Analysis Data on Film: Visualizations

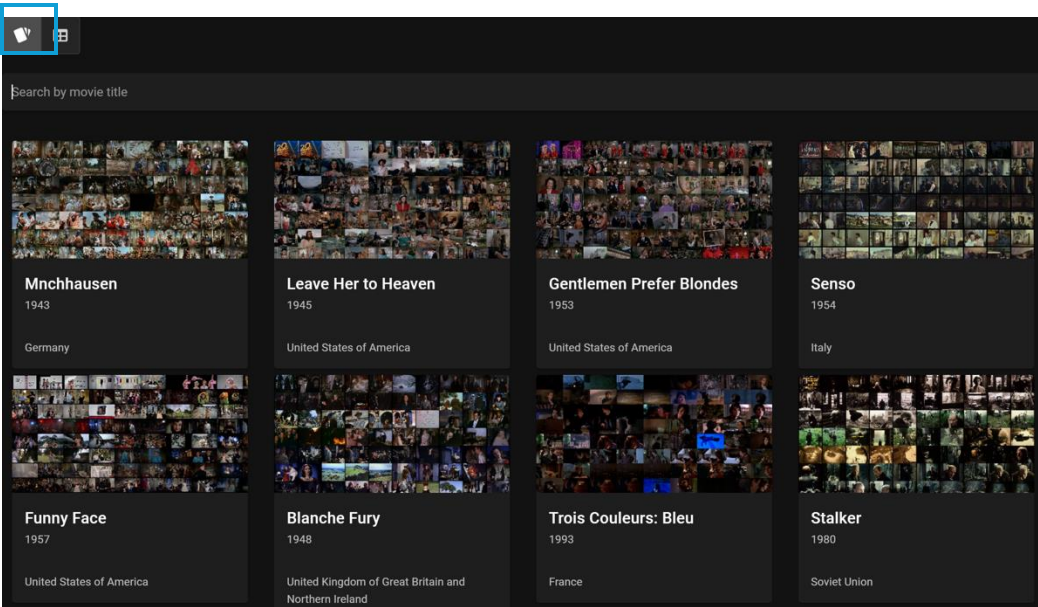
- 1) Color concepts
- 2) CIE-L*a*b* color space
- 3) Color Histogram
- 4) Color Palette
- 5) Descriptions of visualizations
- 6) Color dT
- 7) Color CIE-LAB (AB-Plane/LC-Plane)
- 8) Color Palette CIE-Lab (AB-Plane)/ Histogram (AB-Plane)
- 9) Annotation on timeline

There are two display methods: You can choose between a **visual view** and a **list view**, each offering different search options.

- When you **already know** the title of the film you want to look up.
- When you want to be inspired by the visuals of the film.

1. **Visual view:** search by film title only

Contents of display:
Screenshots (excerpt.), film title, year, and country of production.



- Screenshots of the film help you visualize it.
- You have to scroll a lot to go through the listed titles.

- When you **don't know** the title of the film you want to look up.
- When you want to find titles by other criteria (country and year of production).

2. **List view:** search all fields

Contents of display:
Corpus ID, film title, year, and country of production

ID	Corpus ID	Title	Year	Country	Uploader
1	186	Munchhausen	1943	Germany	8
2	107	Leave Her to Heaven	1945	United States of America	8
3	256	Gentlemen Prefer Blondes	1953	United States of America	8
4	268	Senso	1954	Italy	8
5	260	Funny Face	1957	United States of America	8
8	105	Blanche Fury	1948	United Kingdom of Great Britain and Northern Ireland	8
9	15	Trois Couleurs: Bleu	1993	France	8
10	23	Stalker	1980	Soviet Union	8
12	73	Higanbana	1958	Japan	8
14	96	2001: A Space Odyssey	1968	United States of America	8
16	104	Pal Joey	1957	United States of America	8
17	143	The War of the Worlds	1953	United States of America	8

A screenshot of the 'List view' interface. It features a search bar at the top with a magnifying glass icon on the right. Below the search bar is a table with columns for ID, Corpus ID, Title, Year, Country, and Uploader. The table contains 12 rows of movie data. A small icon in the top left corner of the interface is highlighted with a yellow box.

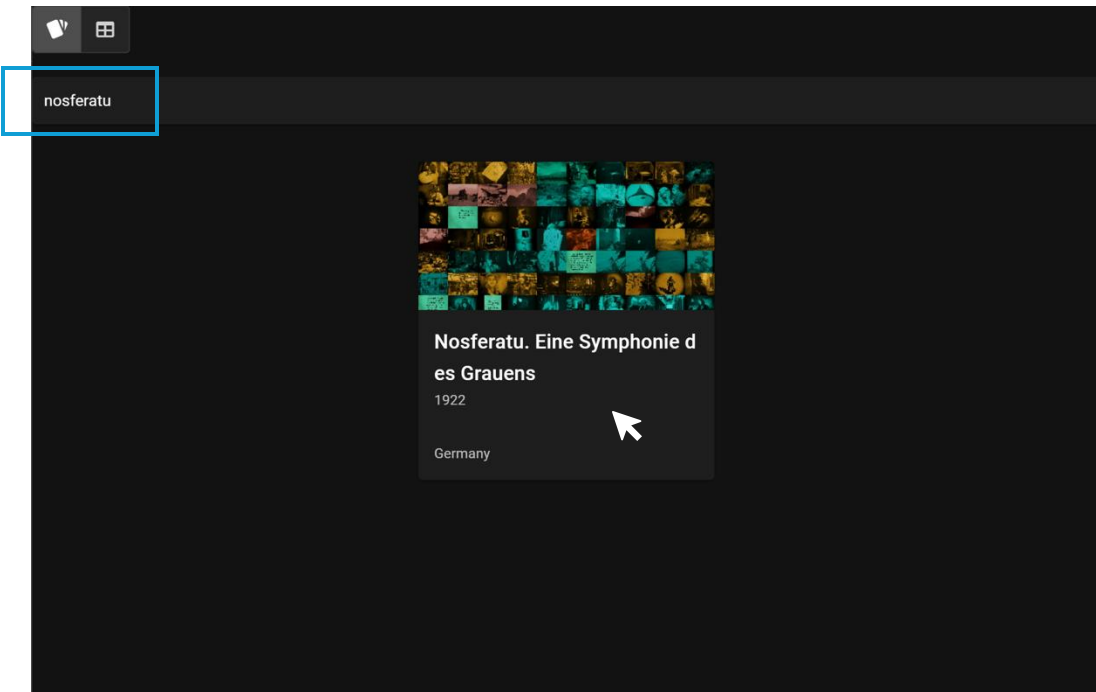
- Provides a quick overview of the list.
- No images are shown.

Search by **film title**

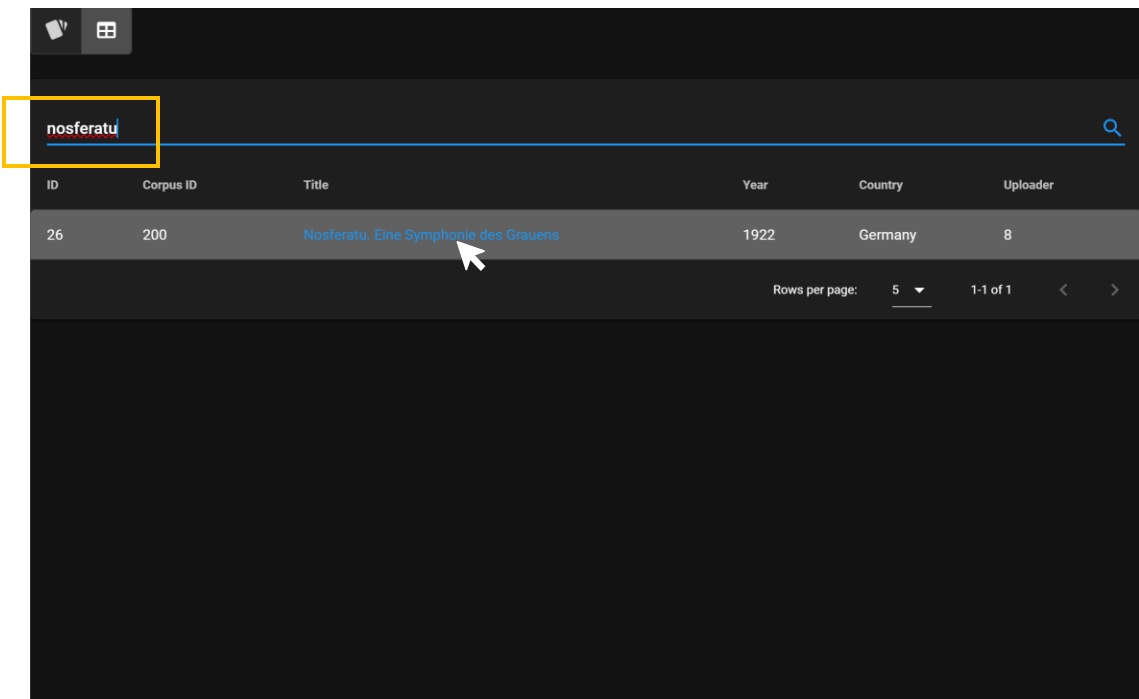
- 1. Enter the film title in the search field.
- 2. Select the displayed title. In List view, click the title.



1. Visual view

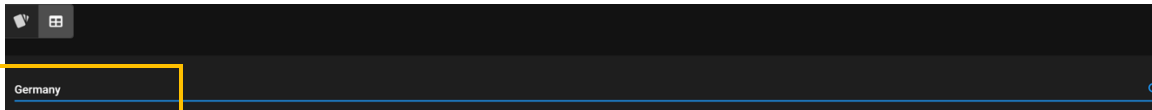
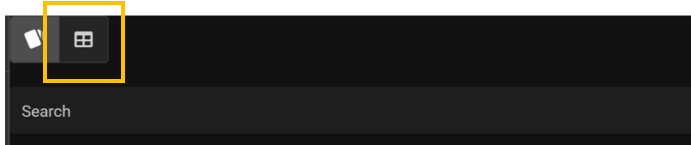


2. List view

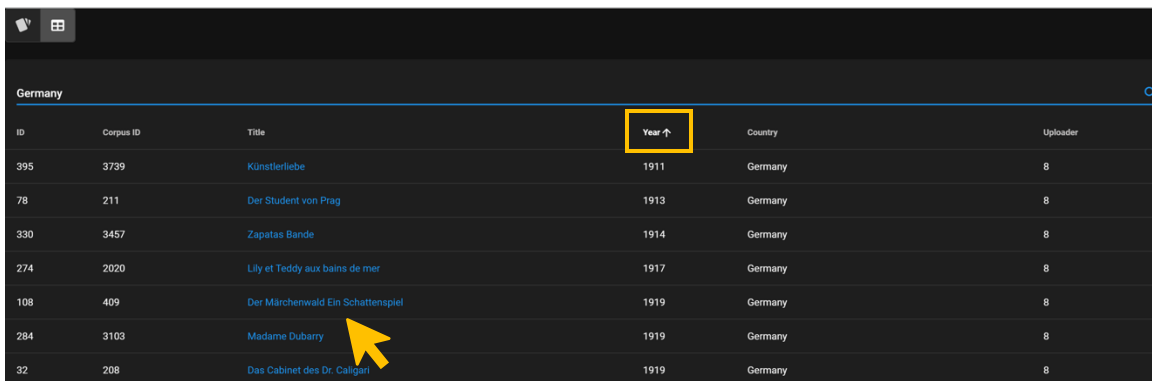


Search by **conditions** (country of production, year of production)

 German silent movie; NOSFERATU. EINE SYMPHONIE DES GRAUENS (GER 1922)



ID	Corpus ID	Title	Year	Country	Uploader
1	186	Mnichhausen	1943	Germany	8
26	200	Nosferatu. Eine Symphonie des Grauens	1922	Germany	8
41	255	Lola	1981	Germany	8
48	177	Frauen sind doch bessere Diplomaten	1941	Germany	8
50	224	Opfergang	1944	Germany	8
82	223	Immensee. Ein deutsches Volkslied	1943	Germany	8
108	409	Der Märchenwald Ein Schattenspiel	1919	Germany	8



ID	Corpus ID	Title	Year ↑	Country	Uploader
395	3739	Künstlerliebe	1911	Germany	8
78	211	Der Student von Prag	1913	Germany	8
330	3457	Zapatas Bande	1914	Germany	8
274	2020	Lily et Teddy aux bains de mer	1917	Germany	8
108	409	Der Märchenwald Ein Schattenspiel	1919	Germany	8
284	3103	Madame Dubarry	1919	Germany	8
32	208	Das Cabinet des Dr. Caligari	1919	Germany	8

1. Click  to change to List view.

! Default setting is the Visual view.

2. Enter “**Germany**” in the search field.

3. Click “**Year**” to display titles in chronological order.

! Default setting is ordered by the ID number of the title.

4. Click on the **film title**.

The project page consists of three parts: metadata, segmentation, and visualization.



1 METADATA

General information about the film production

- Title, year of production, genre, country, director, etc...
- Color process, color consultant...

2 SEGMENTATION

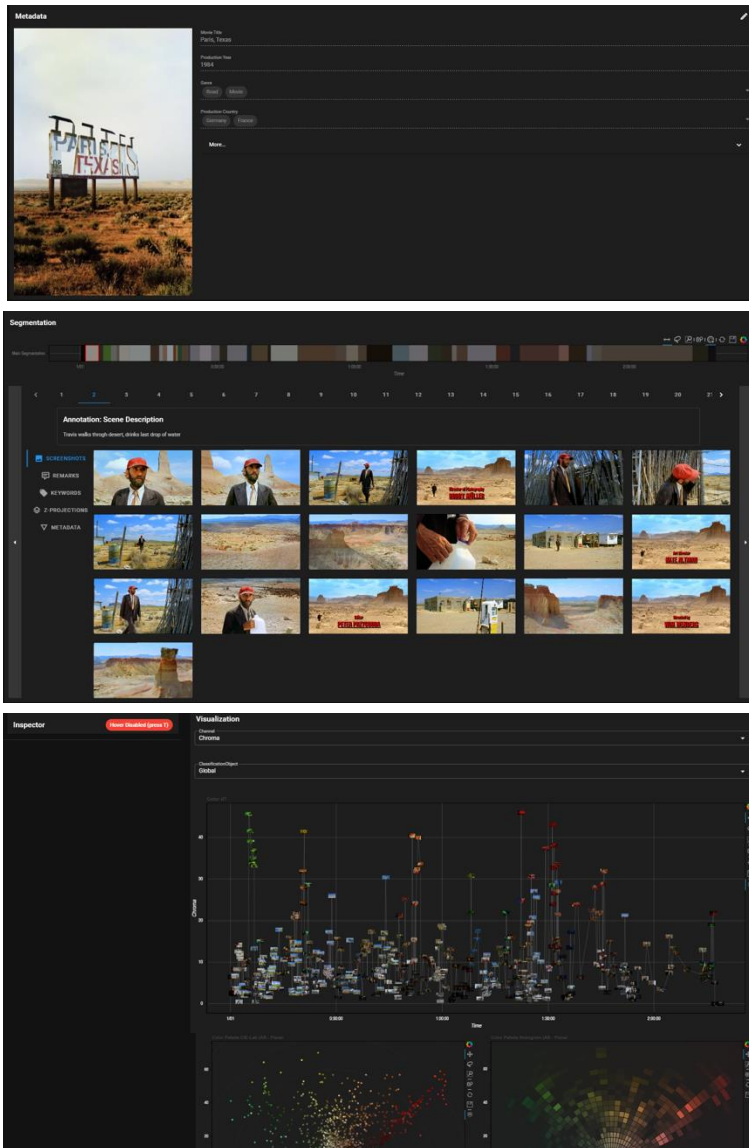
Information and annotations per segment

- Scene description
- Screenshots
- Annotation (keywords)
- Remarks
- Metadata (segment start time/end time, number of keywords, number of screenshots)

3 VISUALIZATION

Results of the color analysis

- Color dT
- Color CIE-Lab (AB-Plane)
- Color CIE-Lab (LC-Plane)
- Color Palette CIE-Lab (AB-Plane)
- Color Palette Histogram (AB-Plane)
- Annotation data in timeline



2 SEGMENTATION

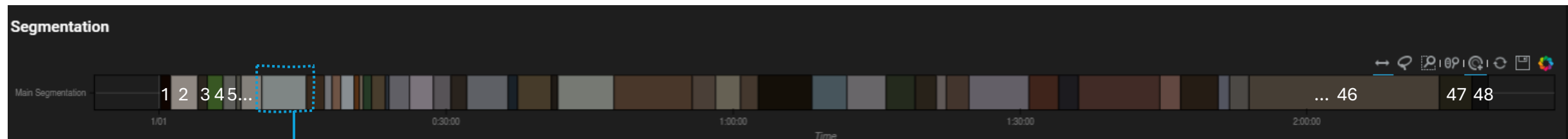
- Segments are a key entity in VIAN: Individual segments represent visually and narratively meaningful clusters.
- When you analyze a film in VIAN, it is divided into several segments. The number of segments is determined by the analyzer, and each segment serves as the smallest unit for color analysis and annotation.

! In many cases, segments are defined by scene transitions, changes in color palette, or narrative shifts (such as recollection or dream scenes).

! In some films, multiple segmentation patterns have been created.

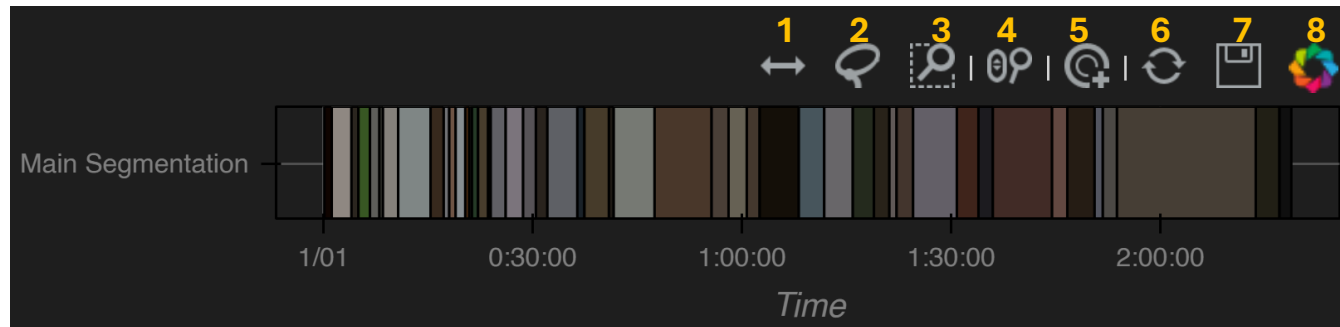
! It is also interesting to consider why the segments were divided in this way.

 PARIS, TEXAS (USA 1984)



Timeline of the entire film (The film duration is around 2h 18m)

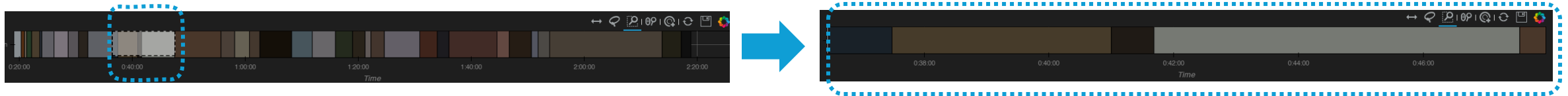
Each individual box represents a segment (in this case, the film consists of 48 segments).



1.  **Pan (x-axis):** You can drag to move the displayed area of the graphic left or right.

2.  **Lasso select:** Select a range.

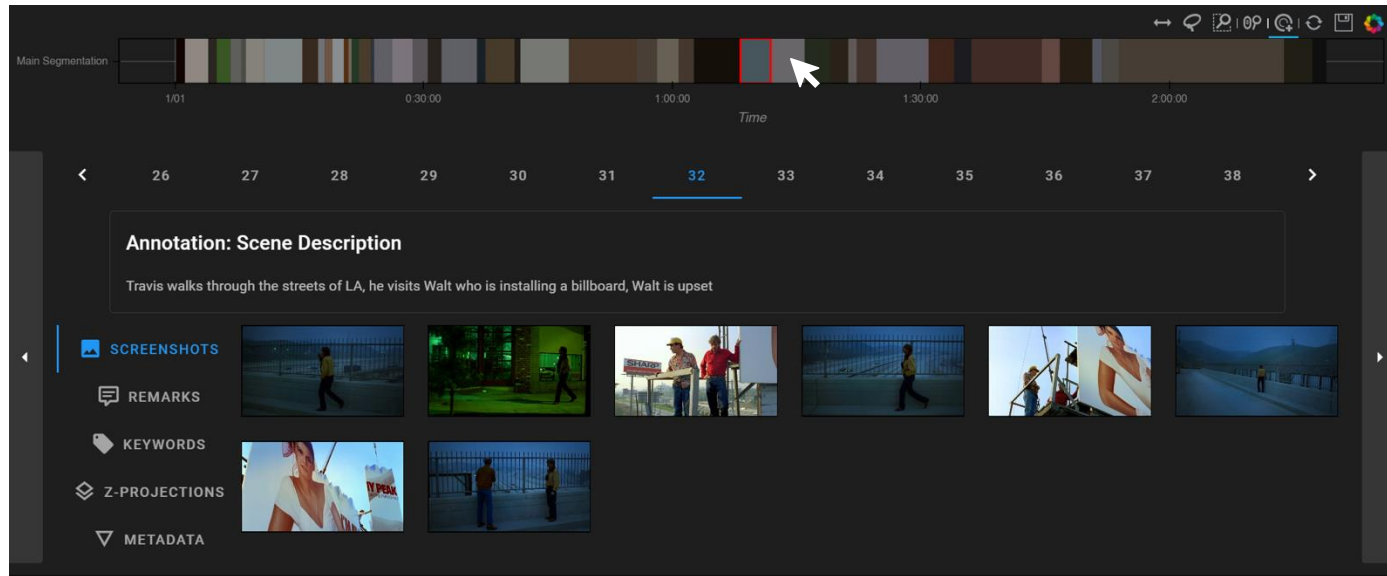
3.  **Box Zoom:** When you drag to select an area, it is automatically enlarged.



4.  **Wheel Zoom (x-axis):** Placing the mouse pointer over a segmentation graphic allows you to zoom in and out of the entire graphic using pinch/spread gestures on a touch panel or by rotating the scroll wheel.



5.  **Tap:** When you **tap** on a segment, its information appears below.



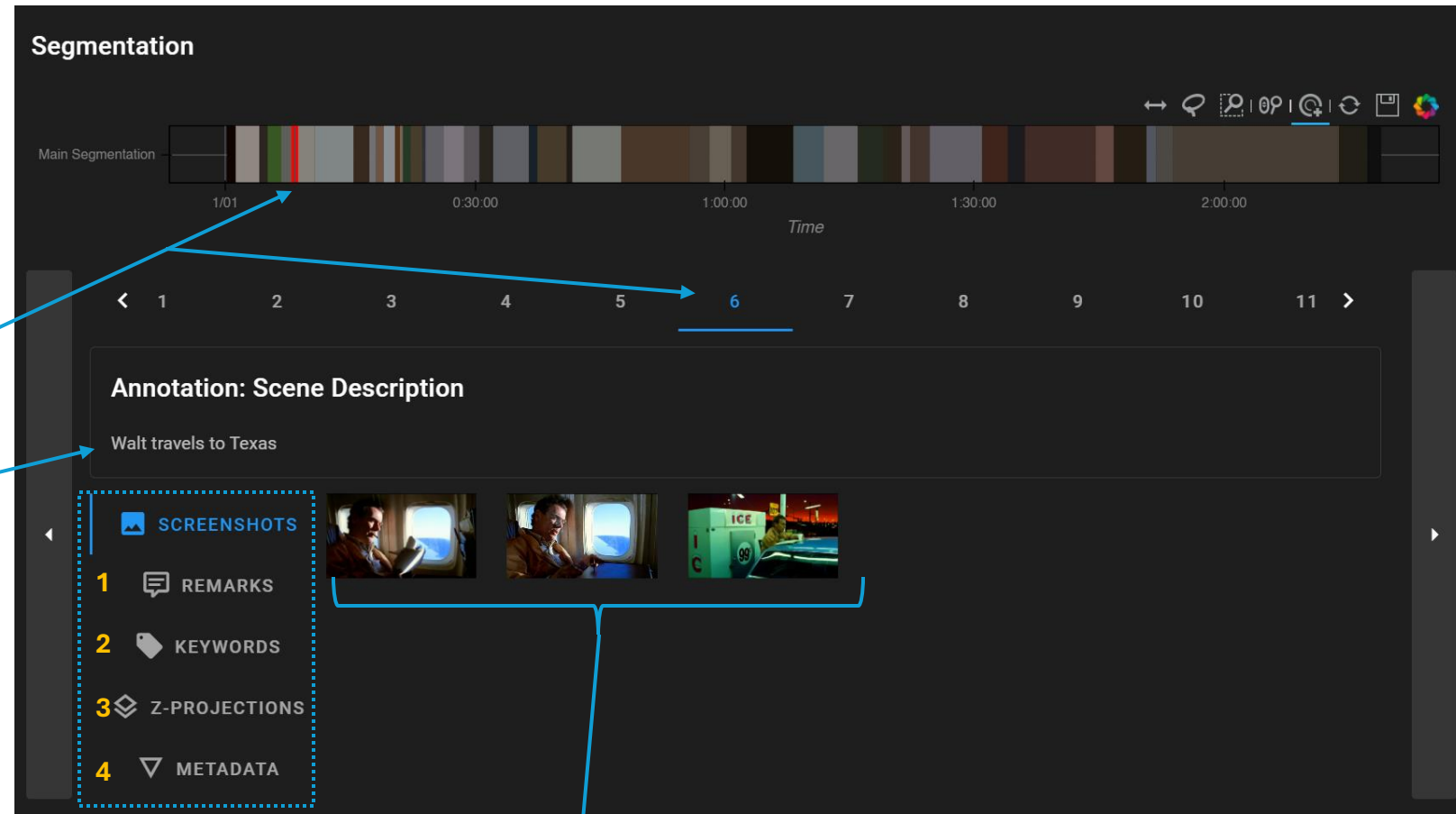
6.  **Reset:** Use the **Reset** feature to return to the original standard display after zooming or other adjustments.
7.  **Save:** Click **Save** to export the current graphic display as an image file.
8.  **Bokeh:** If you are interested in a visualization tool, the **Bokeh** project homepage will open.

For each segmentation, you can access four different types of information in addition to scene descriptions.

- Screenshots, Remarks, Keywords, Metadata

This is the 6th segment of the film.

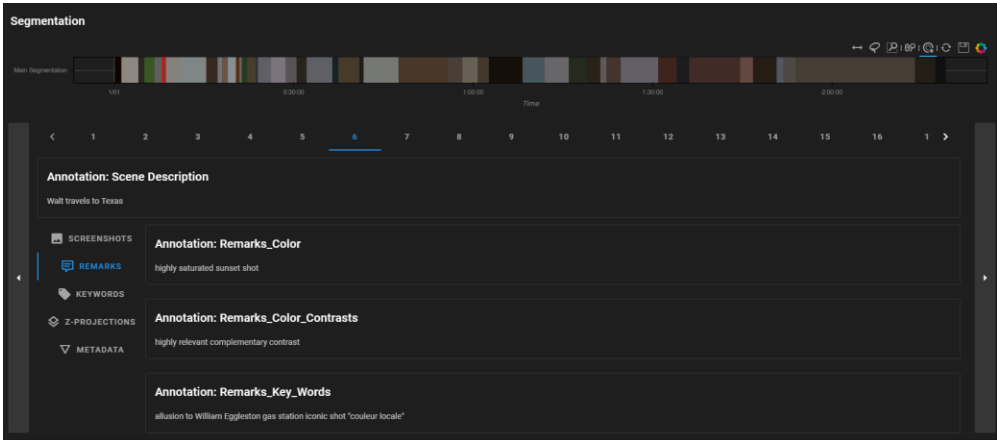
Description of the scenes belonging to this segment.



Screenshots of scenes belonging to this segment

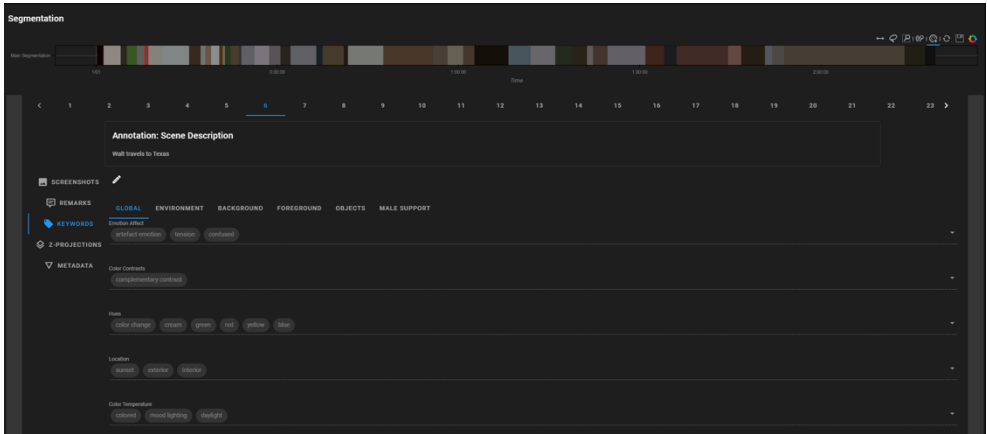
1. REMARKS

View the annotation notes for this segment.



2. KEYWORDS

View a list of all annotated keywords in this segment.



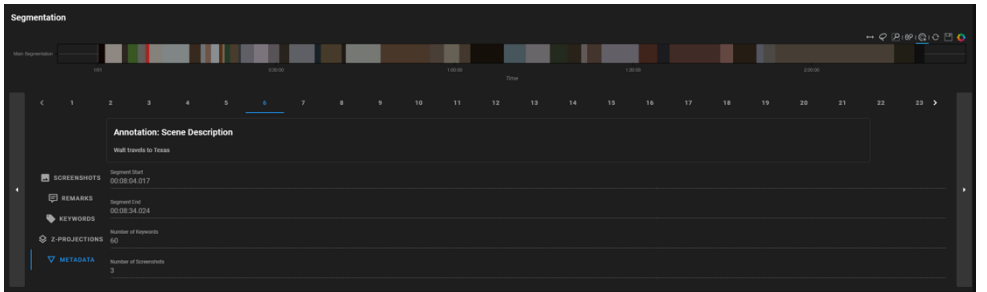
3. Z-PROJECTIONS

Z-Projection allows you to see the location of movement in a segment by superimposing temporal entities, i.e. all the frames in one segment.

Currently no data available

4. METADATA

Displays the segment's start and end times, the count of annotated keywords, and the number of screenshots within.



3 VISUALIZATION

VIAN calculates the color properties of entities (such as screenshots and segments) based on the following aspects:

- **Color Average:**
Represents the average color of the entire entity.
→ *Color dT, Color CIE-Lab (AB – Plane), Color CIE-Lab (LC – Plane)* 1 2 3
- **Color Histogram:**
Shows the distribution of colors within the entity without detailing how these colors are grouped.
→ *Color Palette Histogram (AB – Plane)* 5
- **Color Palette:**
Illustrates the distribution of colors within the entity along with information on how these colors are grouped.
→ *Color Palette CIE-Lab (AB – Plane)* 4

All of VIAN's visualizations of color properties and analyses are conducted in the **CIE L*a*b* (Lab) color space**.

However, certain elements or color properties may be mapped into a sub-space of CIE L*a*b*. For example, in some visualizations, the average color of screenshots is displayed on the 2D AB-plane.

CIE-L*a*b* color space

The CIE L*a*b* color space is a way to arrange colors in an intuitively understandable way: The three letters L, a, and b stand for the three parameters according to which the colors are arranged in this color space:

L: The Lightness of the color. The lighter the color, the higher is this value. It ranges from 0 (black) to 100 (white).

a: The color on the green-red axis.

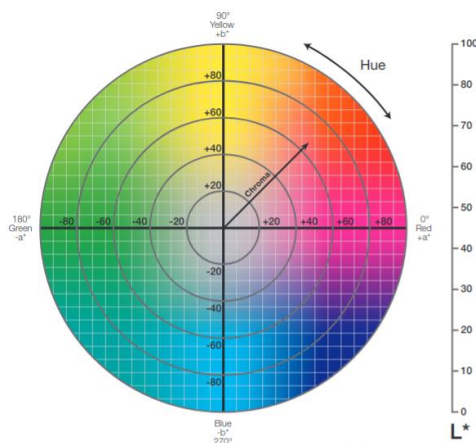
b: The color on the blue-yellow axis.

Normally, the **a** and **b** values are mapped into a 2D plane, while the **L** value is conceptualized orthogonal to this ab-plane. The result is a spherical color space, in which each color can be distinctly described and placed according to its **L**, **a**, and **b** parameters.

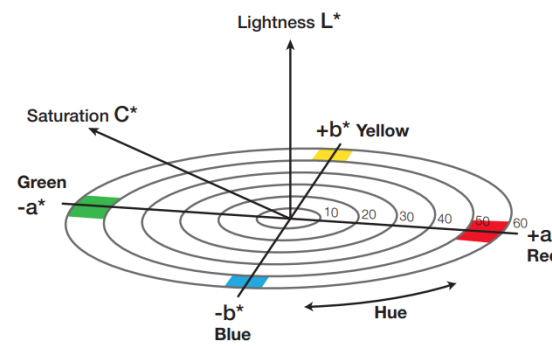
On the circular **ab-plane**, there are two further metrics, which are often used in describing colors:

Hue: The angle on the circle identifies which color one is talking about, where a hue of value 0 corresponds to red. Notice, that after 1 turn we are at 0 again (this is why very small and very high hues represent similar colors. See below, The scale starts at 0°, red, and ends at 360°, red again).

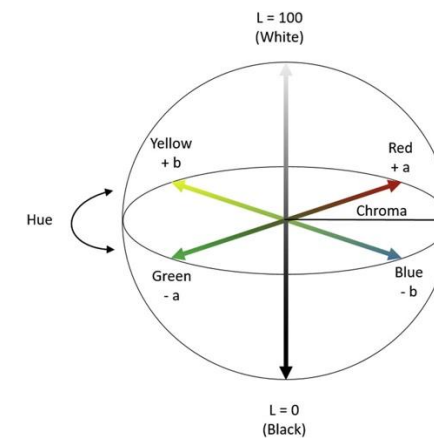
Chroma: The chroma indicates how «greyish» a color is, the nearer to the circle center, the greyer the color (a value of 0 indicates as grey as possible and a value of 100 as saturated as possible).



The a*b*-plane. Credits: A Guide to Understanding Color¹



The L* value is represented on the center axis.
Credits: A Guide to Understanding Color¹

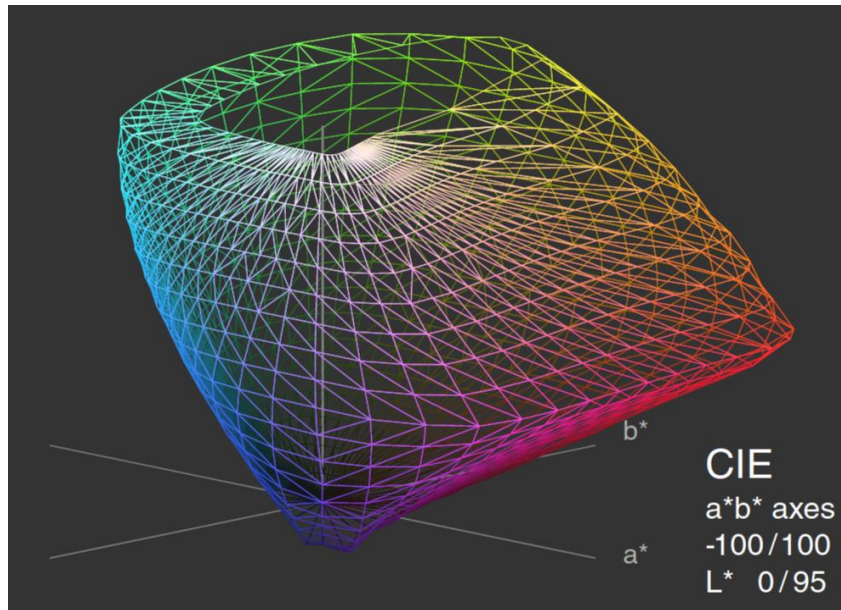


The CIE L*a*b* color space, modelled as sphere.
Credits: Ly et al. (2020)²

However, this is an abstraction, or rather idealization of the actual color space. The colors that can actually be perceived by the human eye do not form a perfect sphere, but rather a squished body, which is referred to as “**gamut**”.

In the figure below, a representation of it can be seen. For simplicity however, it is enough to remember the **CIE L*a*b* color space** as sphere, with the **a*** and **b*** axis on its great circle which stands orthogonal to the **L**-luminance axis.

An important property of the **CIE L*a*b* space** is that it is a so called “**perceptually uniform**”» representation of colors: If we were to add a certain amount of lightness to two different colors, the modelling in CIE L*a*b* would ensure that both resulting colors will end up in a similar place relevant to their original ones.



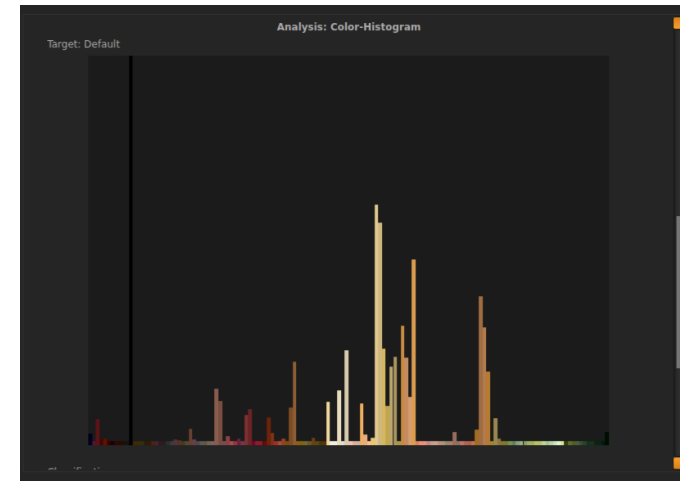
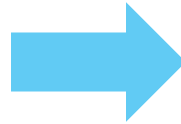
The CIE L*a*b* gamut. Credits: Hoffmann (2003) ³

Sources:

1. A Guide to Understanding Color, URL: https://www.xrite.com/-/media/xrite/files/whitepaper_pdfs/l10-001_a_guide_to_understanding_color_communication/l10-001_understanding_color_en.pdf
2. Ly, Bao Chau K.; Dyer, Ethan B.; Feig, Jessica L.; Chien, Anna L.; Bino, Sandra Del (2020): Research Techniques Made Simple: Cutaneous Colorimetry: A Reliable Technique for Objective Skin Color Measurement. In: *Journal of Investigative Dermatology*, 140,1, pp. 3-12.e1.
3. Hoffmann, Garnotm (2003): CIELab Color Space, URL: <http://docs-hoffmann.de/cielab03022003.pdf>

Color Histogram

A *Histogram* is essentially a representation of the distribution of numerical data — in terms of colors of a digital image, this simply means to look at each pixel individually and look at its color properties. The accumulation of this process can then be visualized in a color space.



Color Histogram of the screenshot in the *Inspector* in VIAN

As can be seen in the histogram (and the screenshot as well, in this case), there are many pixels that have yellowish color properties — in this picture those come from mainly from the sand in the background — and there are also spikes for pink and red color tones — from the dress of the woman.

However, it has to be noted, that this is strictly speaking not visible from the Histogram itself, it merely tells us that there are many yellowish pixels in the image, but it does **not convey information as how these pixels are arranged in the picture.**

In fact, ANY arrangement of the pixels in the original image (also completely random ones) would have the same histogram.

Color Palette

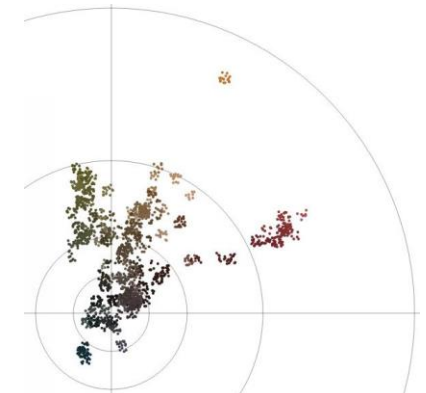
The *Color Palette* is a similar analysis to the *Histogram*, but with an addition that makes it more informative for interpretation: Instead of calculating the color properties of each individual pixel, the color palette groups pixels that are adjacent and have common color properties to form so-called **super pixels (i)**. It then calculates **the average color of these super pixels**.



i. Super pixels visualized.



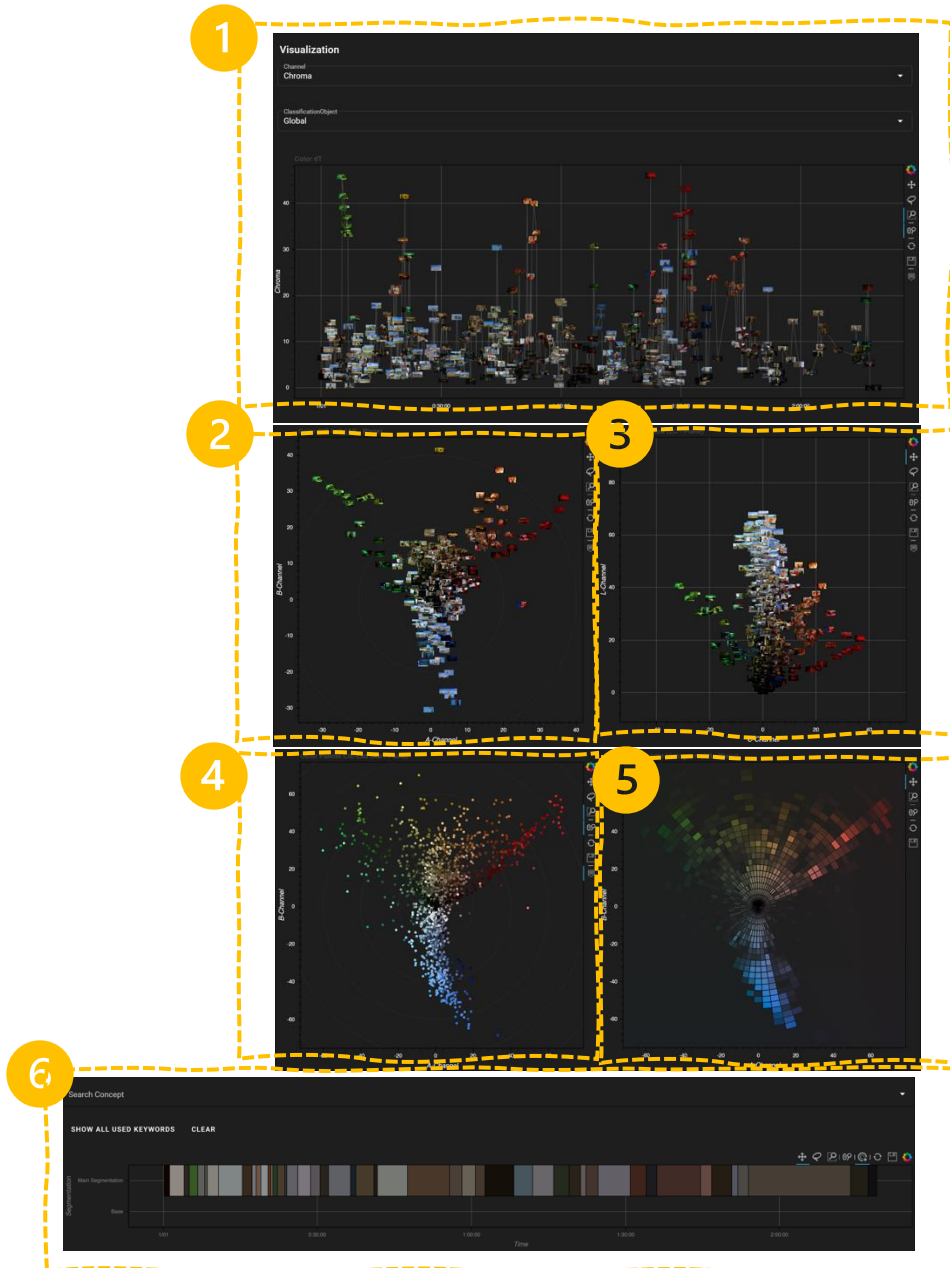
ii. Visualization of the bottom-up hierarchical clustering of a palette



iii. Visualization of the bottom-up hierarchical clustering of a palette

Unlike the *Histogram* described earlier, the *Color Palette* reveals information about the **distribution of colors in the original image**: Because the algorithm clusters adjacent pixels together and calculates the average color of those pixels, you automatically know that if there is a large cluster in the histogram, there is also a large number of adjacent pixels in the original image that share that average color. The resulting tree can then be visualized in VIAN (ii), where the number of merges in the tree, and thus the number of clusters, can be adjusted by the user using a slider.

Plotting color schemes in the A-B plane of the LAB color space makes it easier to compare different color schemes (iii). Using a jitter effect and plotting the number of dots according to the size of the color cluster within the palette allows better comparison than a linear visualization.

**1 Color dT**

Visualization of the average screenshot color regarding different features over time

2 Color CIE-Lab (AB – Plane)

Visualization of the average screenshot color in the LAB color space (AB-Plane)

3 Color CIE-Lab (LC – Plane)

Visualization of the average screenshot color in the LAB color space (LC-Plane)

4 Color Palette CIE-Lab (AB – Plane)

Visualization of the clusters based on the average super pixels color in the LAB color space (AB-Plane)

5 Color Palette Histogram (AB – Plane)

Visualization of the average color of pixels in each frame in the LAB color space (AB-Plane)

6 Annotation on Timeline

Show segments annotated with keywords on the timeline.



PARIS, TEXAS (USA 1984)

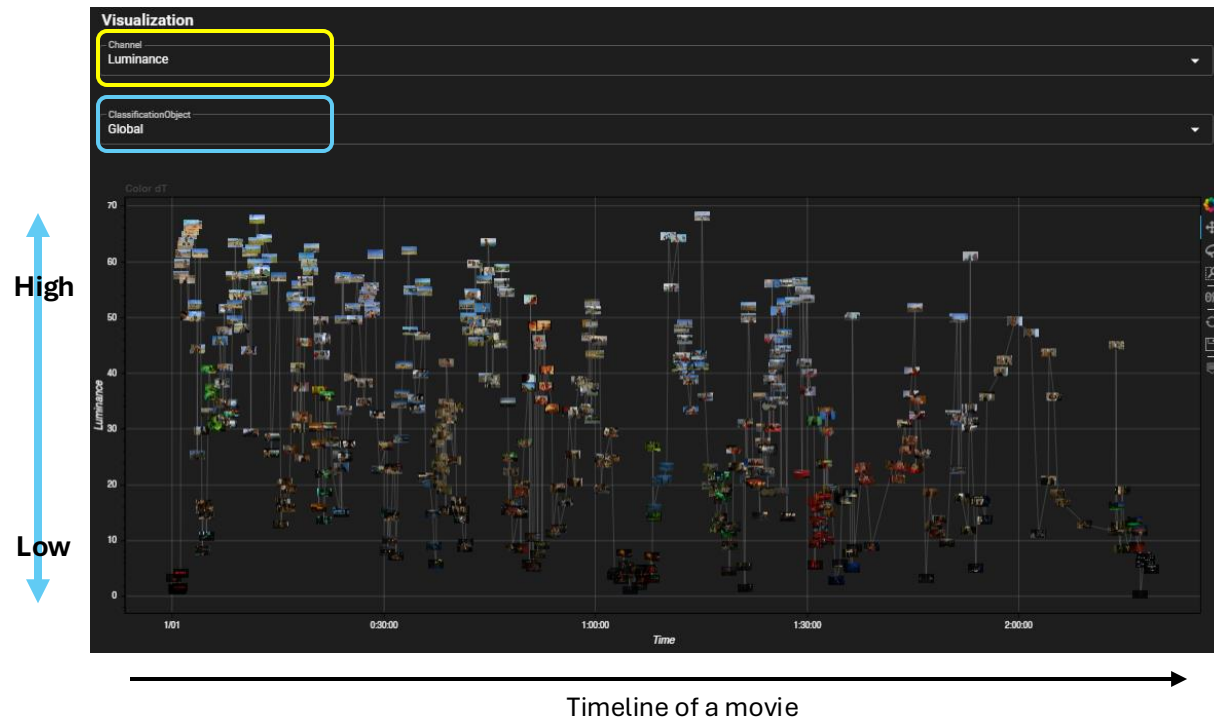
1 Color dT

color average of each screenshot, plotted **over time** for various features

In the drop-down menu, you can select different features of the color average you want to plot over time.

1. Channel = **luminance**:

The degree of *lightness* of the color average of each screenshot corresponds to the high and low positions of the graph.



Pan: You can use drag to grab and move the diagram area.



Hover: Select this tool and then place the cursor on the screenshot within the graphic to display the segment's information, which includes the screenshot. Only possible in 2, 4.
Please make sure that this function is activated = Hover Enabled (on the left side of the graphics, to change please press T)

You can change the channel (**features**)

1. **Luminance:** The Lightness of the color
2. **Chroma:** how “greyish” (desaturated) a color is.
3. **Hue:** The angle on the circle indicates the color.
4. **A-Channel:** regarding the green-red axis
5. **B-Channel:** regarding the blue-yellow axis

You can change the Classification Object (**Range of color analysis**)

1. **Global:** entire screenshot
2. **Figure:** automatically recognized foreground (characters)
3. **Ground:** automatically recognized background

2. Channel = **Chroma**:

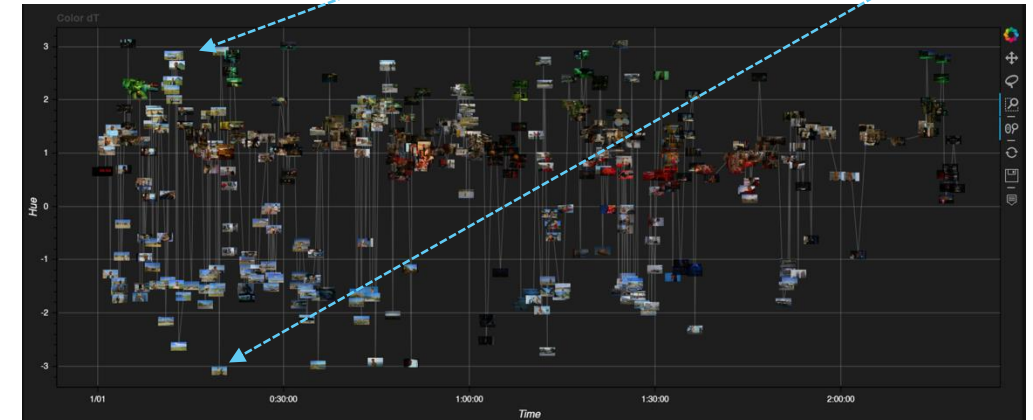
The lower on the graph, the closer their *chroma* value is to zero (closer to grey), and conversely the higher the value (higher color saturation), the higher they are.

4. Channel = **A-Channel**:

The closer to red, the higher the *a-value* and the higher the position in the graph; the closer to green, the lower the *a-value* and the lower the position in the graph.

3. Channel = **Hue**:

Hue is conceptualized as laying in a **circle**; values with a very low and with a very high hue value actually lie close together.

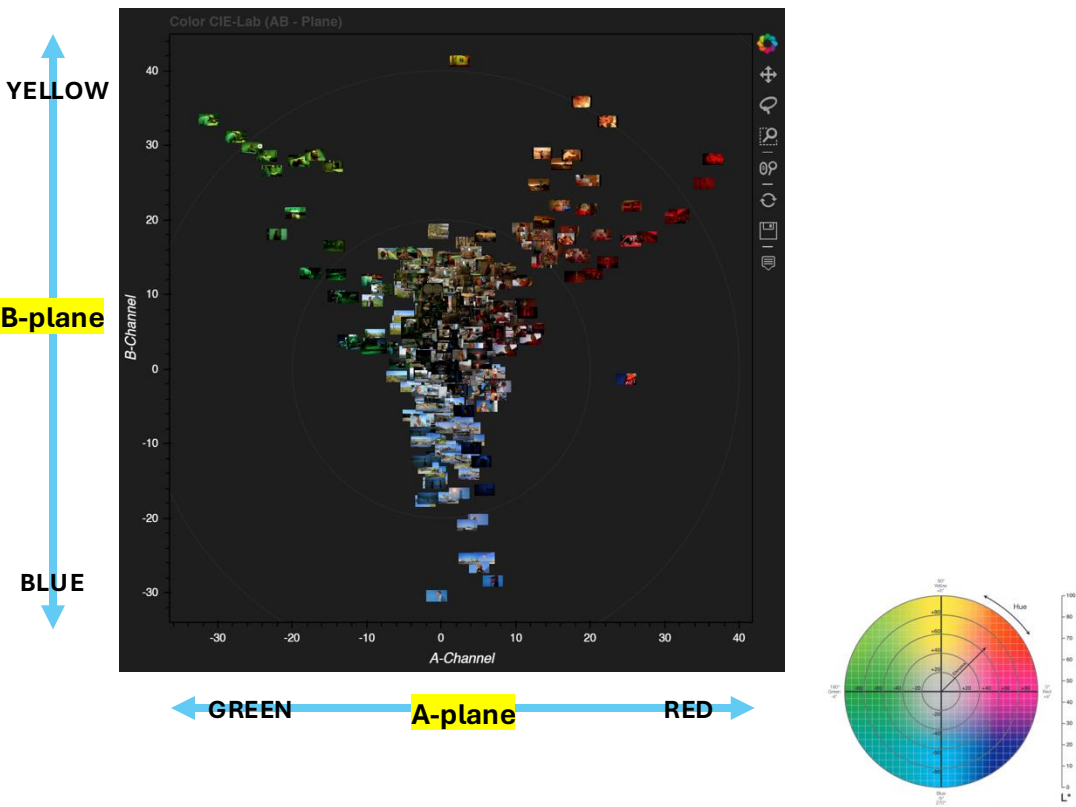
5. Channel = **B-Channel**:

The closer to yellow, the higher the *a-value* and the higher the position in the graph; the closer to blue, the lower the *a-value* and the lower the position in the graph.



2 Color CIE-Lab (AB – Plane)

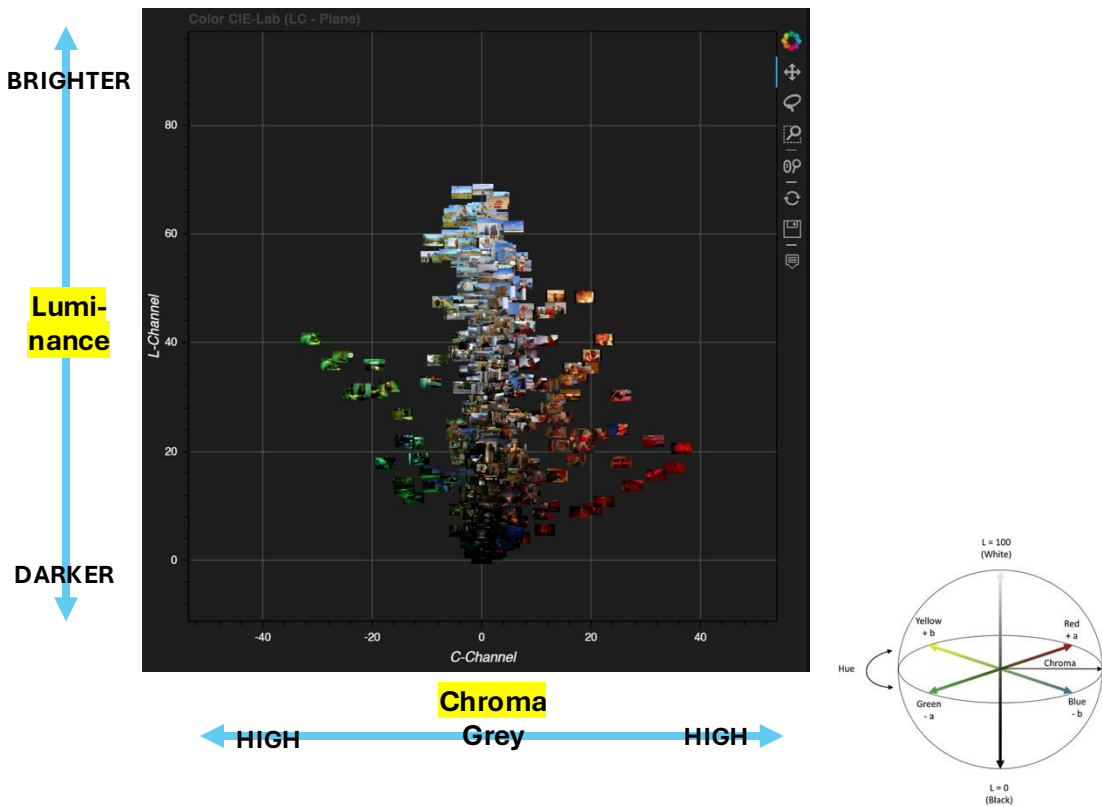
Every screenshot mapped onto its position in the a*b* plane according to the values of its average color:



! This is a plan view from the top of the CieLAB sphere.

3 Color CIE-Lab (LC – Plane)

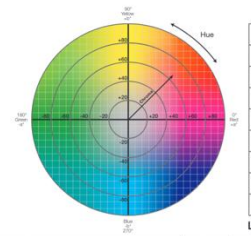
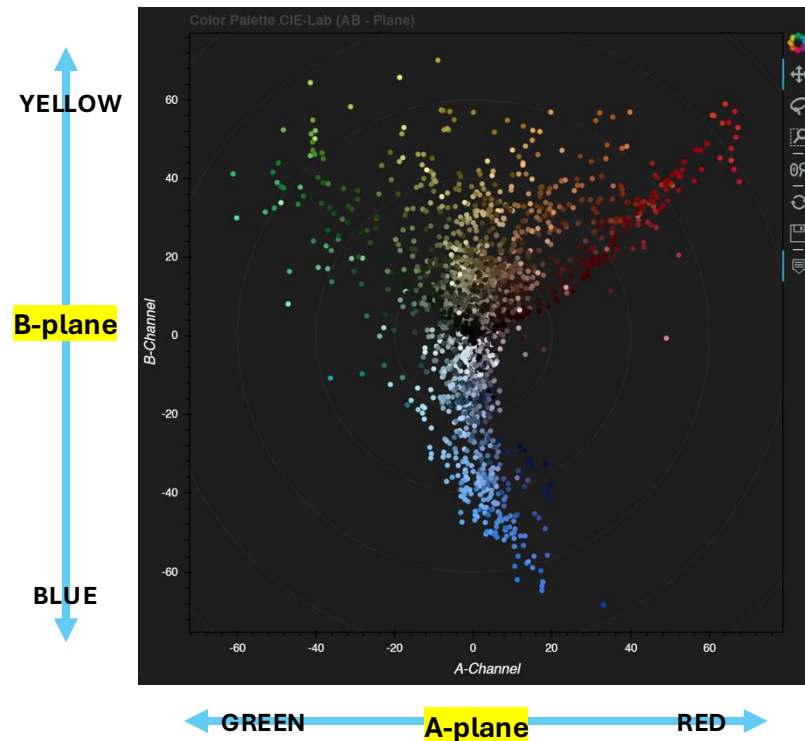
Every screenshot mapped onto its position in the Luminance and Chroma plane regarding the values of its average color:



! This is a cross-sectional view of the CieLAB sphere from the side.

4 Color Palette CIE-Lab (AB – Plane)

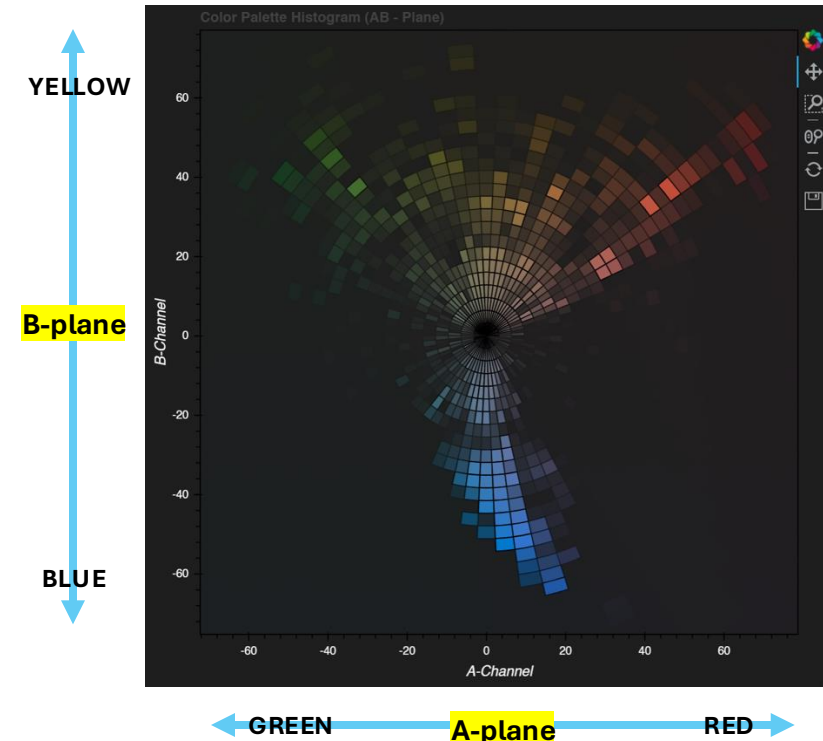
Every single dot shows the color components from Super pixels in each screenshot



! These are plan views from the top of the CieLAB sphere.

5 Color Palette Histogram (AB – Plane)

Every single square shows the color components from pixels in each screenshot

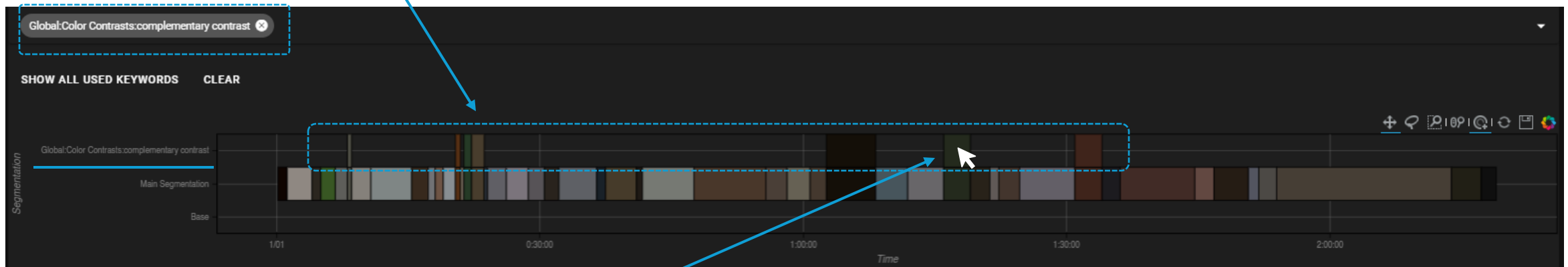


! Each color dot also contains information about its arrangement in the frame; when you move the cursor over a dot, the segments to which the screenshot containing that color dot belongs are displayed on the left.

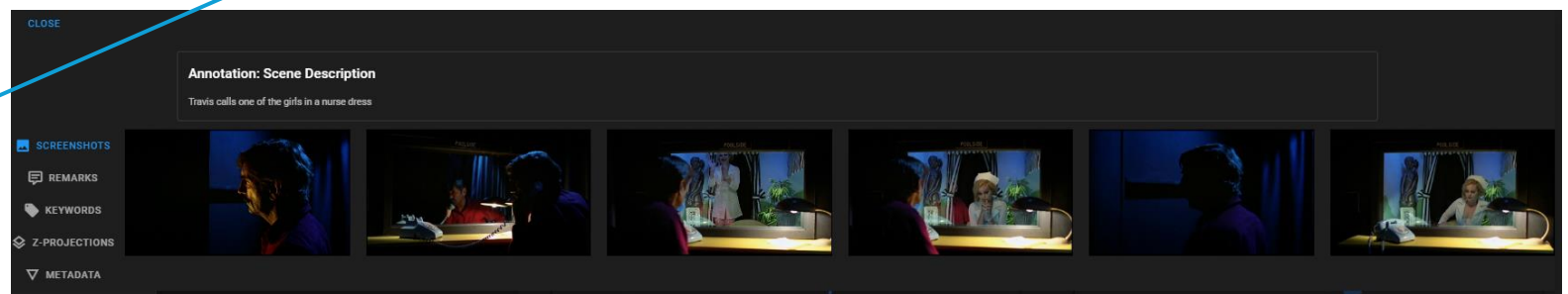
6 Annotation on the Timeline

- When you search for a term, all segments that have been annotated with this term are displayed in the timeline.
- In the upper Segmentation area (2), you can see the annotated words from the individual segments. Here, conversely, it is possible to show the segments from a vocabulary, with which the segment is annotated.

1. Choose keywords in “Search Concept” →  **Color Contrast: complementary contrast**
All segments with which this keyword was annotated, are shown.

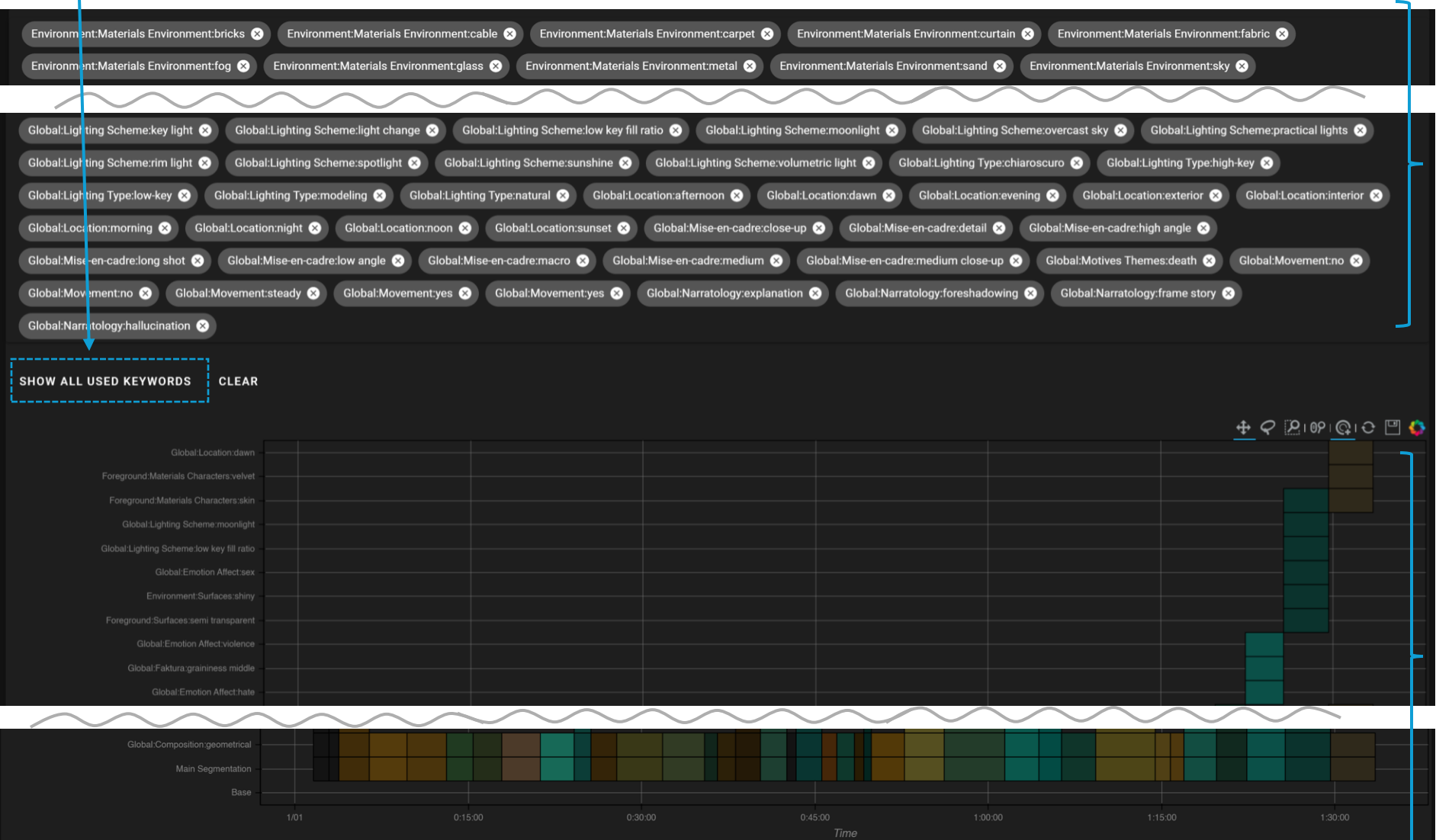


2. When you click on a segment, the information on this segment is displayed in a new window; contents are identical to the information on the in the Segmentation area (2).



! Here you can only search for terms that were actually used for the annotation in this film. When searching for non-annotated terms, ‘No data available’ is shown.

With **SHOW ALL USED KEYWORDS** you can display all the vocabularies used for the annotation at once. Press **CLEAR** to close it.



List of all keywords annotated for this film.

Order: Alphabetical
Environment → Foreground → Global

Annotation table
- x-Axis: timeline
- y-Axis: keywords

QUERY:

Search by keywords

3.1. Find Analysis Data linked to Keywords

- 1) Descriptions of features

3.2. View Analysis Data linked to Keywords

- 1) Color Visualization
- 2) Color dT
- 3) Projects
- 4) Segments
- 5) Screenshots

Select a subcorpus: The result only contains data from the selected subcorpus. When you have created your own list, you can also select it as a sub-corpus. By default, all data will be queried. For reset, press X.

Production Year: The results include only data of movies produced in the selected period (1880–2022). When you click the blue dots, the year will be shown.

A screenshot of a search interface with a dark background. At the top left, there is a dropdown menu labeled 'Select a Subcorpus'. To its right is a 'Production Year' slider with blue dots at each end. Below these are two input fields: 'Include Search Values' and 'Exclude Search Values'. To the right of these fields are two buttons labeled 'PICK FROM LIST'. At the bottom right is a blue 'SEARCH' button and a 'Help' icon. A navigation bar at the bottom contains tabs: 'COLOR VISUALIZATION' (highlighted in blue), 'PROJECTS', 'SEGMENTS', 'SCREENSHOTS', and 'CUSTOM VIS'. Blue dashed boxes and arrows point from the text descriptions to the 'Select a Subcorpus' dropdown, the 'Production Year' slider, and the 'Include Search Values' field. Yellow dashed boxes and arrows point from the text descriptions to the 'PICK FROM LIST' buttons.

Include Search Values: Each search result contains at least one of these search terms (OR connection).

Exclude Search Values: None of the search results contain one of these search terms (AND connection)



You can choose between two different search modes. The default setting is a list view, but if you switch to “Collapse List”, the words are displayed by category for you to choose from.

Two screenshots comparing search modes. The top screenshot, labeled 'PICK FROM LIST', shows a list of search terms with checkboxes. The bottom screenshot, labeled 'COLLAPSE LIST', shows the same search terms organized into a grid by category (e.g., LOCATION / TIME, NARRATION / SEMANTICS, EMOTION / AFFECT, MOTIVES / THEMES, VFX, COLOR, MATERIALS, COLOR CONTRASTS, COMPOSITION). Yellow arrows point from the 'PICK FROM LIST' button in the top screenshot to the 'COLLAPSE LIST' button in the bottom screenshot.

The search results can be visualized from four different categories.

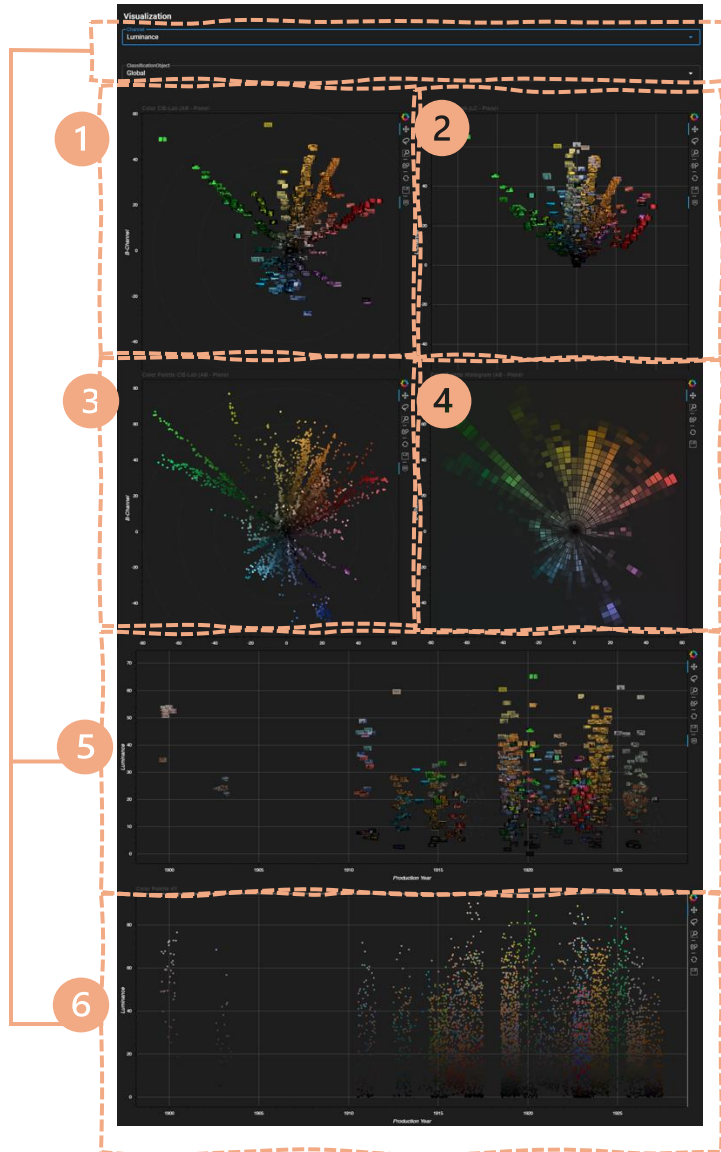


Global: Narratology: **FORESHADOWING** + Production Year (1880–1927) + Germany

The screenshot shows a search interface with a dark background. At the top, there is a 'Select a Subcorpus' dropdown menu. Below it, a 'Production Year' slider is set between 1880 and 1927. Under 'Include Search Values', the text 'Global:Narratology:foreshadowing' is entered with a close button. To the right is a 'PICK FROM LIST' dropdown. Below this, the 'Exclude Search Values' section is empty, also with a 'PICK FROM LIST' dropdown. At the bottom right, there is a 'Help' icon and a blue 'SEARCH' button. A navigation bar at the very bottom contains five tabs: 'COLOR VISUALIZATION' (highlighted with a blue underline), 'PROJECTS', 'SEGMENTS', 'SCREENSHOTS', and 'CUSTOM VIS'.

- 1 **COLOR VISUALIZATION**: showing color visualization from screenshots in the segments that matches the search criteria.
- 2 **PROJECTS**: showing all of the films containing segments that matches the search criteria.
- 3 **SEGMENTS**: showing all segments that matches the search criteria.
- 4 **SCREENSHOTS**: showing screenshots within all segments that matches the search criteria.
- 5 **CUSTOM VIS**: (custom visualization), not working.

1 COLOR VISUALIZATION



1 **Color CIE-Lab (AB – Plane)**

Visualization of the average screenshot color in the LAB color space (AB-Plane)
→ Explanation see 2

2 **Color CIE-Lab (LC – Plane)**

Visualization of the average screenshot color in the LAB color space (LC-Plane)
→ Explanation see 3

3 **Color Palette CIE-Lab (AB – Plane)**

Visualization of the clusters based on the average super pixels color in the LAB color space (AB-Plane) → Explanation see 4

4 **Color Palette Histogram (AB – Plane)**

Visualization of the average color of pixels in each frame in the LAB color space (AB-Plane) → Explanation see 5

5 **Color dT**

Visualization of the average screenshot color regarding different features over production year

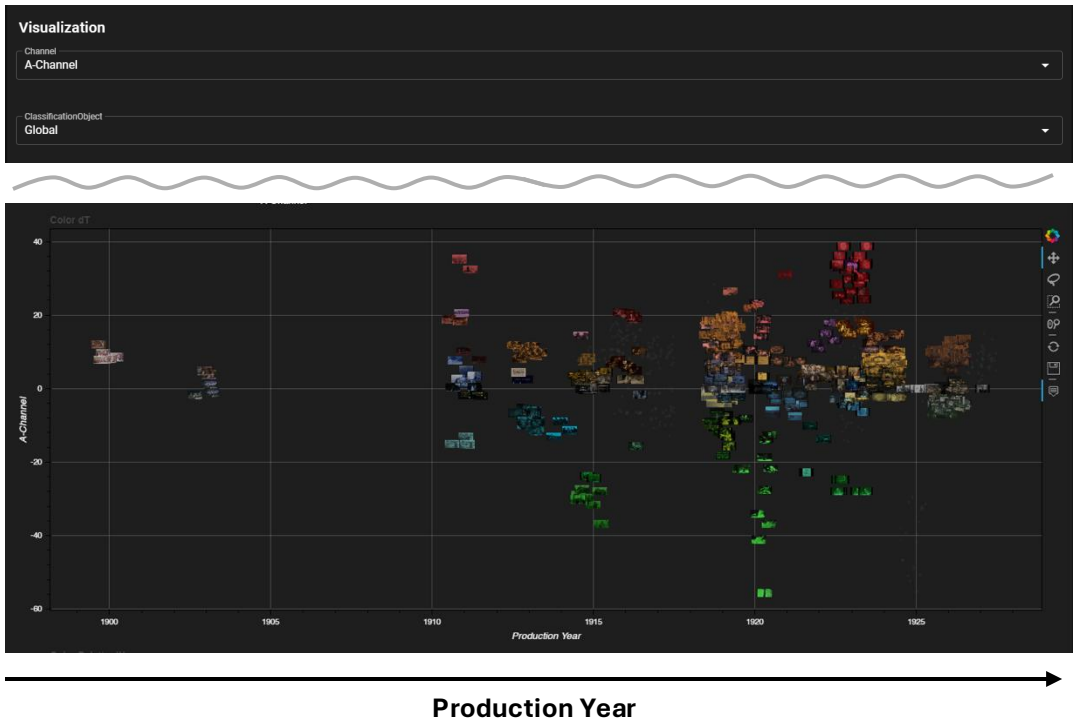
6 **Color Palette dY**

Visualization of the clusters based on the average super pixels color regarding different features over production year



Global: Narratology: **FORESHADOWING** + Production Year (1880–1927)

5 Color dT



Similar to Color dT in the film analysis data visualization, but in this graph the X-axis is the **production year**; the Y-axis is again selectable as LUMINANCE, CHROMA, HUE, A-CHANNEL, B-CHANNEL and the analysis range as GLOBAL, FIGURE, GROUND.

! When you choose the **hover tool** and hover over a screenshot on the graph, information on the segments that includes this screenshot is displayed, including the film title. *Color CIE-Lab (AB-Plane 1)*, *Color Palette CIE-Lab (AB-Plane 3)* have also the same function.

Make sure that this function is activated = **Hover Enabled**

Inspector

Unfermo (1911)

Segment ID: 12

Annotation: Scene Description

The heretics are buried in burning graves. Farinata Uberti predicts Dante's dark path (?) and his exile.

2 PROJECTS



Global: Narratology: **FORESHADOWING** + Production Year (1880–1927) + Germany

All film titles in the data are displayed, containing the segments that matches the search criteria.
Default Setting is the Visual view. Switch to List view if you want to add further criteria.

Select a Subcorpus

Production Year

Include Search Values

Global:Narratology:foreshadowing

Exclude Search Values

PICK FROM LIST

PICK FROM LIST

Help

SEARCH

COLOR VISUALIZATION

PROJECTS

SEGMENTS

SCREENSHOTS

CUSTOM VIS

Germany

ID	Corpus ID	Title	Year	Country	Uploader
285	3104	Das Wachsfikurenkabinett	1923	Germany	8
330	3457	Zapatas Bande	1914	Germany	8
25	192	Schatten. Eine Nchtliche Halluzination	1923	Germany	8
26	200	Nosferatu. Eine Symphonie des Grauens	1922	Germany	8

The display order can be changed by clicking directly on each table title (descending, ascending, alphabetical A-Z, Z-A).

You can further filter your search results using specific search terms.

3 SEGMENTS

Global: Narratology: **FORESHADOWING** + Production Year (1880–1927) + Germany

All segments (from different movies) that match the search criteria are shown.

- Search criteria can be added to narrow down the search.
- There is only one display mode, as shown below.

Select a Subcorpus

Production Year

Include Search Values

Global.Narratology.foreshadowing

Exclude Search Values

Help

SEARCH

COLOR VISUALIZATION

PROJECTS

SEGMENTS

SCREENSHOTS

CUSTOM VIS

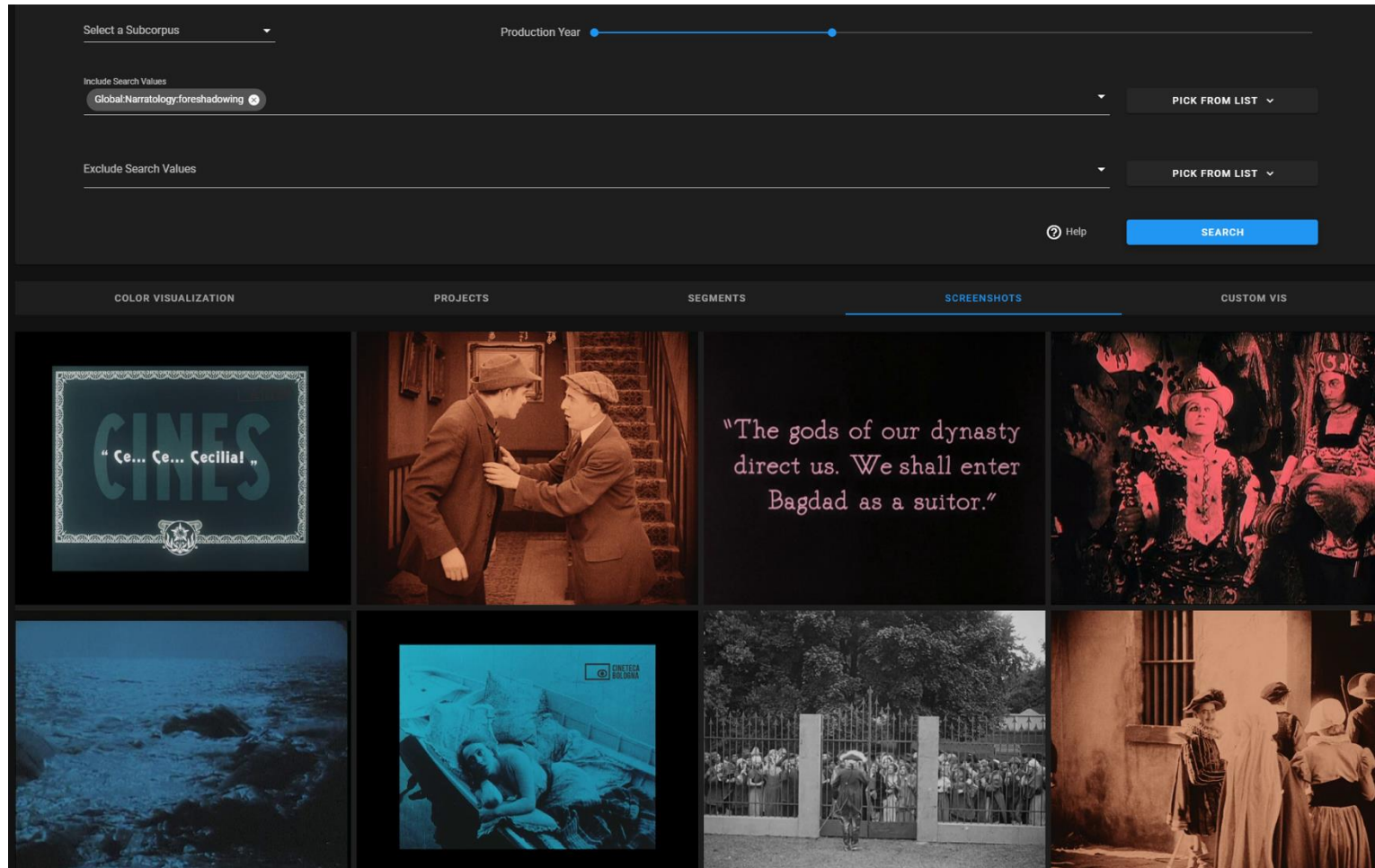
Germany

ID	Movie Title	ID in Movie	Screenshots	Start	End	Corpus ID	Movie Year	Country
4184	Der Student von Prag	13		00:27:10	00:32:51	211	1913	Germany
4183	Der Student von Prag	10		00:16:18	00:22:32	211	1913	Germany
15507	Zapatas Bande	15		00:16:40	00:19:02	3457	1914	Germany

Displayed in chronological order

4 SCREENSHOTS

All screenshots within all segments that match the search criteria are shown.



! This function is not very informative at the moment, as any information of the screenshot can be shown. It is only for obtaining some visual impressions.

GLOSSARY:

Get to know the keywords

4. Get to Know the Vocabulary

- 1) Search a keyword
- 2) Structure of the keyword page

You can use the search field to see which vocabulary is available in which category.

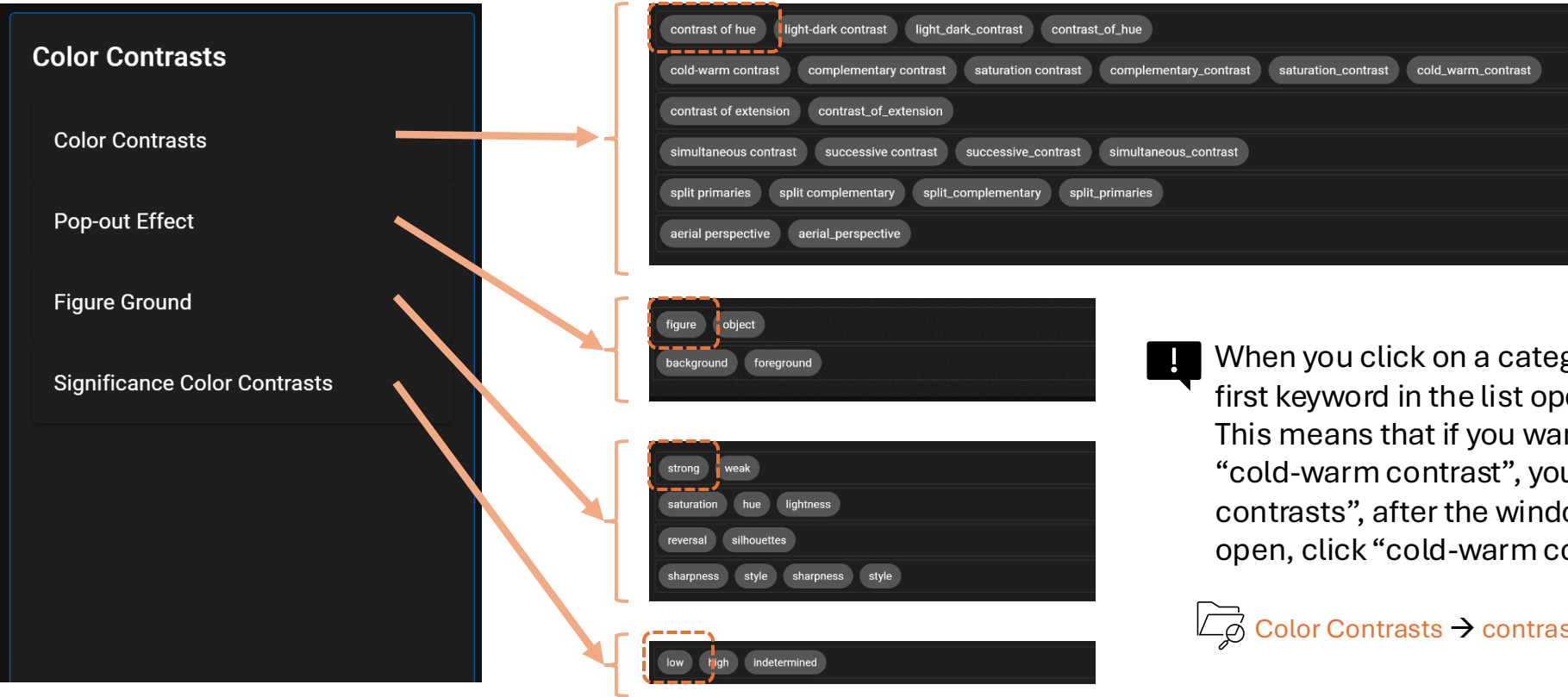
 Contrast of hue

contrast of hue

Global:Color Contrasts:contrast of hue

Depth of Field Depth of Field Significance Depth of Field Camera Technique	Location / Time Location	Narration / Semantics Narratology Higher Order Semantics Intertextuality Intermediality Significance Higher Order Semantics Significance Narration	Emotion / Affect Emotion Affect Significance Emotion Affect
Motives / Themes Motives Themes	VFX VFX Materialisierung Compositing Animation	Color Global Hues Color Scheme Background	Materials Objects Materials Objects Surfaces Foreground

There are a range of keywords under each category, which are then displayed in the new page after clicking.



! When you click on a category, the information for the first keyword in the list opens automatically. This means that if you want to view the page for “cold-warm contrast”, you have to click “color contrasts”, after the window for “contrast of hue” is open, click “cold-warm contrast”.

 **Color Contrasts** → **contrast of hue** → **cold-warm contrast**

Global:Color Contrasts

contrast of hue

light-dark contrast

light_dark_contrast

contrast_of_hue

cold-warm contrast

complementary contrast

saturation contrast

complementary_contrast

saturation_contrast

cold_warm_contrast

contrast of extension

contrast_of_extension

simultaneous contrast

successive contrast

successive_contrast

simultaneous_contrast

split primaries

split complementary

split_complementary

split_primaries

aerial perspective

aerial_perspective

Global:Color Contrasts:contrast of hue

Concept Description

To create a contrast of hue, at least three colors, clearly distinct from one another and relatively saturated, are required. The effect is always colorful, loud, powerful and decisive.

Concept Source

Itten, Johannes (1970): Kunst der Farbe. Ravensburg: Ravensburger Buchverlag, S. 34 ff.

ADD NEW IMAGE

Examples

DELETE



FUNNY FACE (USA 1957, Stanley Donen)

DELETE



HENRY V (GBR 1944, Laurence Olivier)

DELETE



??? [JIGOKUMON] (JAP 1953, Teinosuke Kinugasa)

1. Section: a list of keywords

List of the keywords belonging to this category
→ Click one keyword

2. Section: the chosen keyword

Explanation of the keyword and its sources

3. Sample Images

Sample screen shots annotated with this keyword with the title of the film and information about it

! Note that it freezes by adding images.

 DELETE does not work in this account.

43

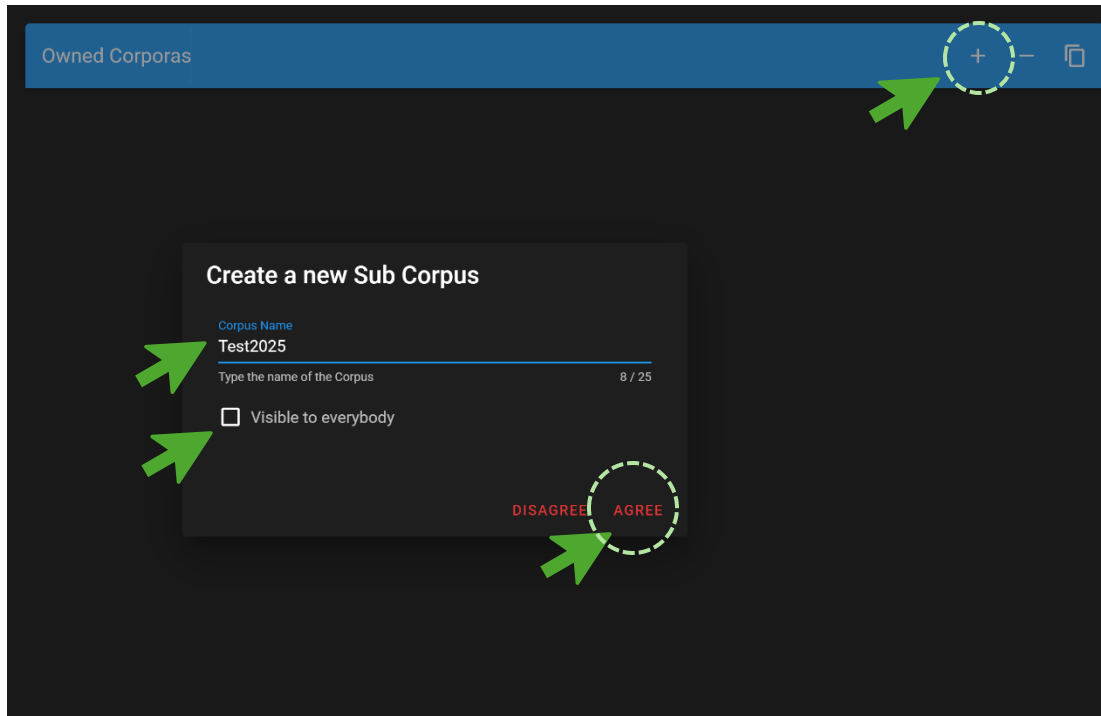
CORPUS MANAGER:

Manage your own film corpus

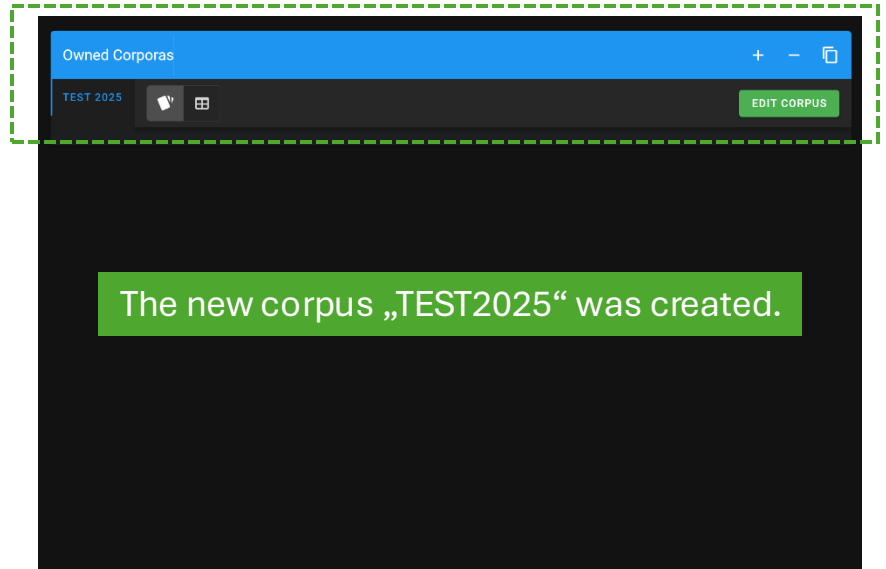
5. Manage Film Corpora

- 1) Create your own corpora
- 2) Two display modes
- 3) Find projects
- 4) Edit corpus (add projects)
- 5) Edit corpus (delete projects)
- 6) Delete corpus
- 7) Duplicate corpus

Create your own corpora



1. Click **+**
2. Enter corpus name (max. 25 characters)
3. If you want to make the corpus visible to everyone, check the box
4. Click **AGREE**



The new corpus „TEST2025“ was created.

- ! Whether the corpus is visible to everyone or not, is after creating the corpus not indicated.
- ! The corpus name is shown in capital letters.



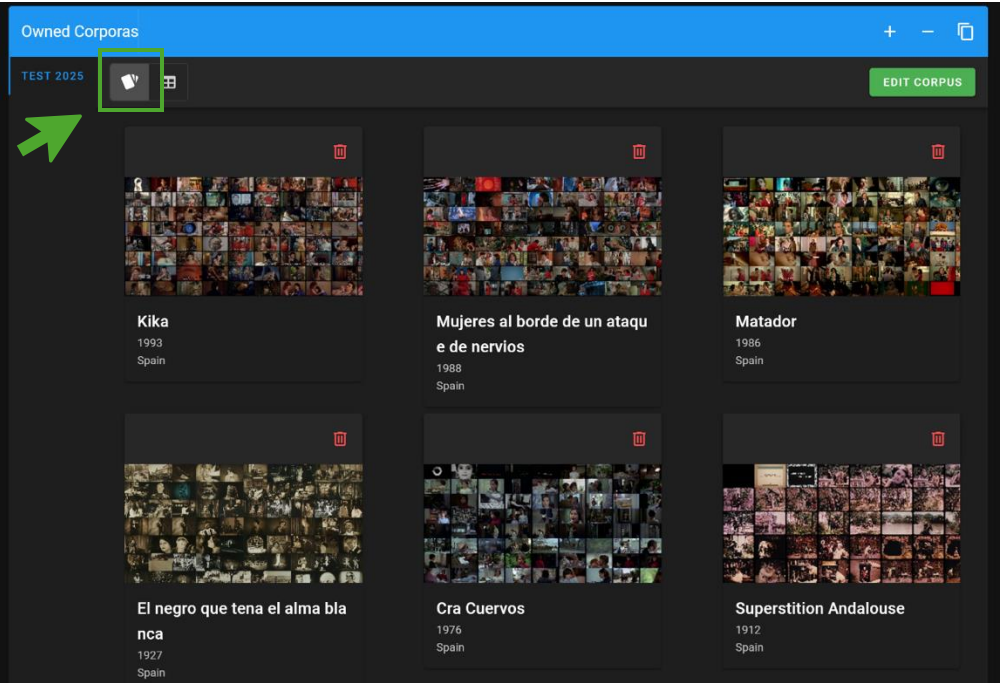
DISAGREE is currently not working, if you want to cancel it, click somewhere outside the window.

There are two display methods: It can be switched between a **visual** and a **list view**. Each has different search ranges.

- When you **already know** the title of the film you want to look up.
- When you want to be inspired by the visuals of the film.

1. **Visual view:** search only by film title

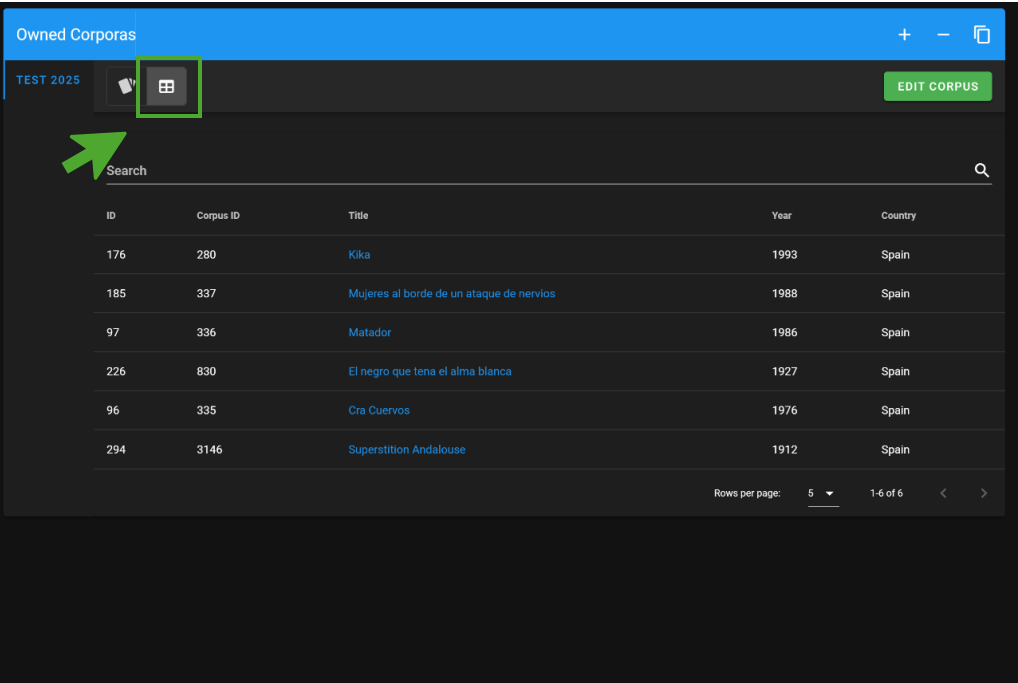
Contents of display:
Screenshots (Excerpt.), film title, year and country of production.



- When you **don't know** the title of the film you want to look up.
- When you want to find titles by other criteria (country and year of production).

2. **List view:** search all fields

Contents of display:
Corpus ID, film title, year and country of production



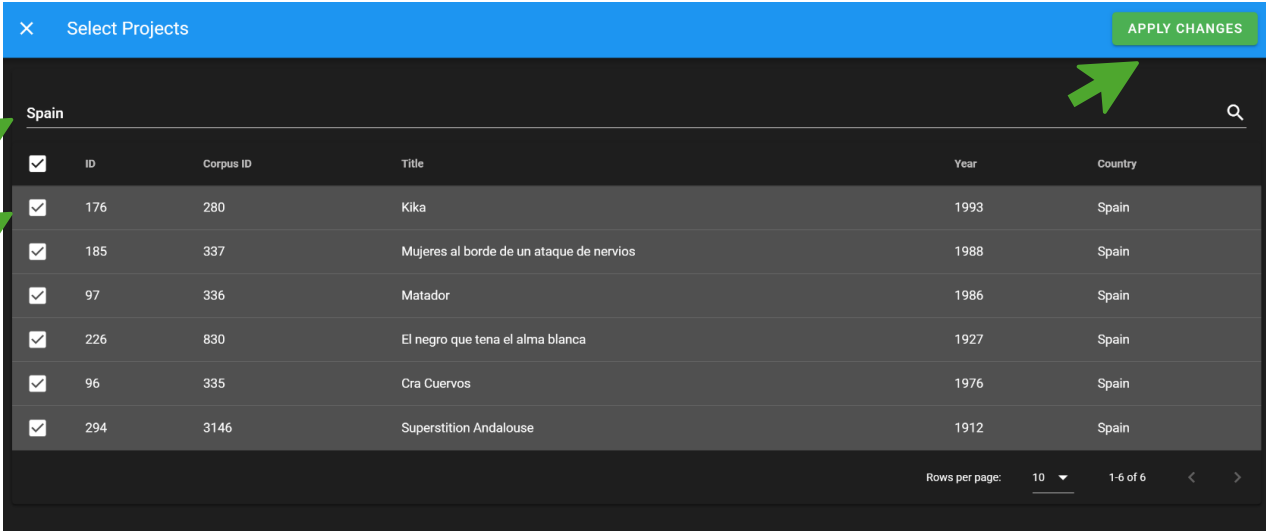
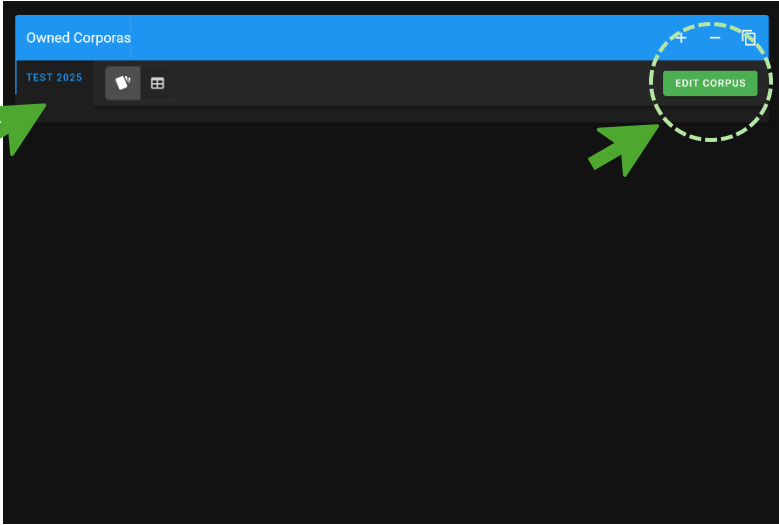
 (TRASH) does not work in this mode.

 Search terms are queried **in all fields**, not just the title of the film, and all matching titles are displayed.

 20

20 					
☐	ID	Corpus ID	Title	Year	Country
☐	14	96	2001 : A Space Odyssey	1968	United States of America
☐	26	200	Nosferatu. Eine Symphonie des Grauens	1922	Germany
☐	27	201	Ben-Hur. A Tale of Christ	1925	United States of America
☐	29	203	Il deserto rosso	1964	Italy
☐	31	205	Vertigo	1958	United States of America
☐	120	629	Goldfinger	1964	United Kingdom of Great Britain and Northern Ireland
☐	124	766	Das Parfum	2006	Germany
☐	142	207	I Want You	1998	United Kingdom of Great Britain and Northern Ireland
☐	200	435	Die Frau meiner Träume	1944	Germany
☐	201	437	Rebel Without a Cause	1955	United States of America

Add projects to the corpus



ID	Corpus ID	Title	Year	Country
176	280	Kika	1993	Spain
185	337	Mujeres al borde de un ataque de nervios	1988	Spain
97	336	Matador	1986	Spain
226	830	El negro que tena el alma blanca	1927	Spain
96	335	Cra Cuervos	1976	Spain
294	3146	Superstition Andalous	1912	Spain

1. Choose the corpus
2. Click **EDIT CORPUS**
3. All titles in the data are listed, as in the first step. Choose the titles you want to add.
4. Or enter a search term  **Spain**
5. Check the box of the project you want to include in the corpus.
6. Click **APPLY CHANGES**

6 films were registered under the corpus "TEST 2025".



It is not possible to add the titles from the pages of the individual film projects to the list; editing the corpus is only possible via the corpus manager.

Delete projects from the corpus

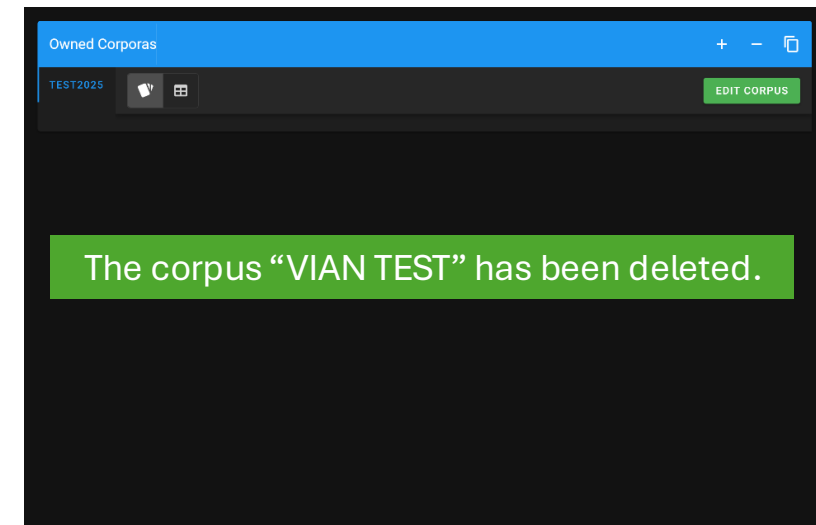
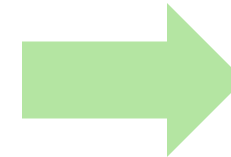
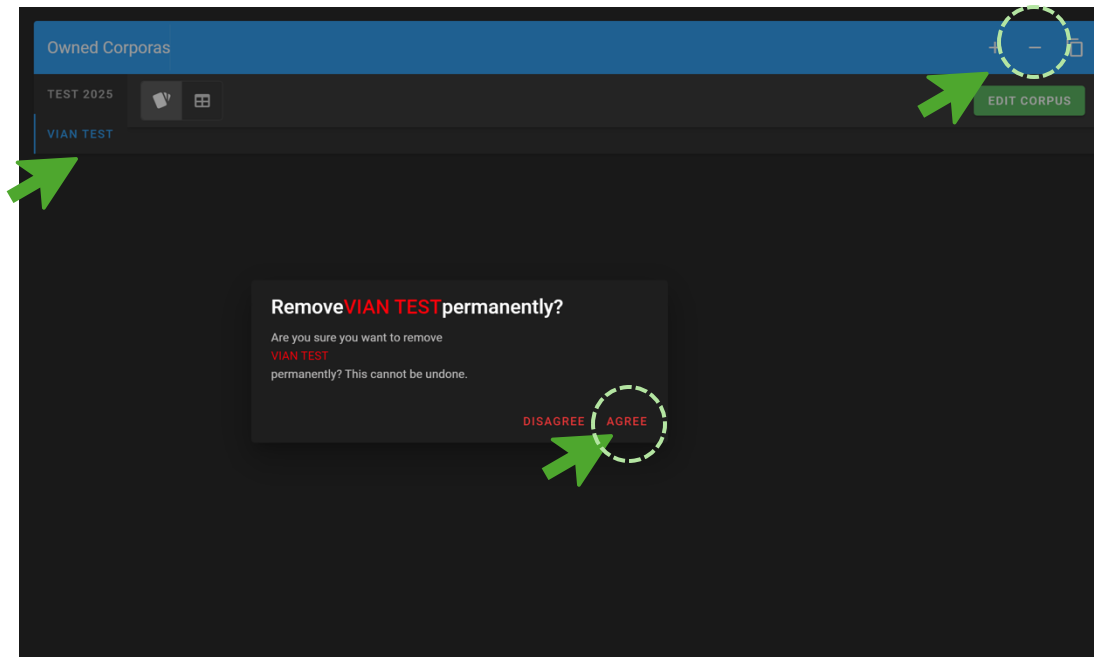
The 'Owned Corporas' interface shows a list of corpora. The 'EDIT CORPUS' button is highlighted with a green dashed circle and a green arrow. This leads to the 'Select Projects' dialog box, which contains a table of film projects. A green arrow points to the 'APPLY CHANGES' button in the top right corner of the dialog.

	ID	Corpus ID	Title	Year	Country
☐	1	186	Mnchhausen	1943	Germany
☐	2	107	Leave Her to Heaven	1945	United States of America
☐	3	256	Gentlemen Prefer Blondes	1953	United States of America
☐	4	268	Senso	1954	Italy
☒	5	260	Funny Face	1957	United States of America
☐	8	105	Blanche Fury	1948	United Kingdom of Great Britain and Northern Ireland
☒	9	15	Trois Couleurs: Bleu	1993	France
☒	10	23	Stalker	1980	Soviet Union

1. Chose the corpus
2. Click **EDIT CORPUS**.
3. All titles in the data are listed, as in the first step. Choose the titles you want to delete.
4. Or enter a search term.
5. Uncheck the box of the project you want to exclude from the corpus.
6. Click **APPLY CHANGE**

! Note that **EDIT CORPUS** will display a **list of all works**, not only those in Corpus.

Delete a film corpus

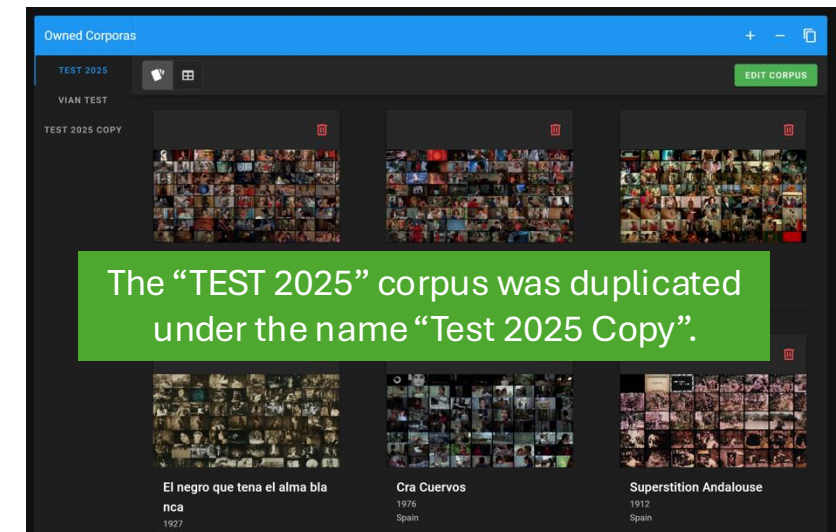
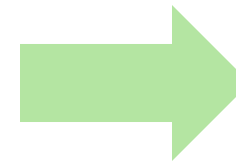
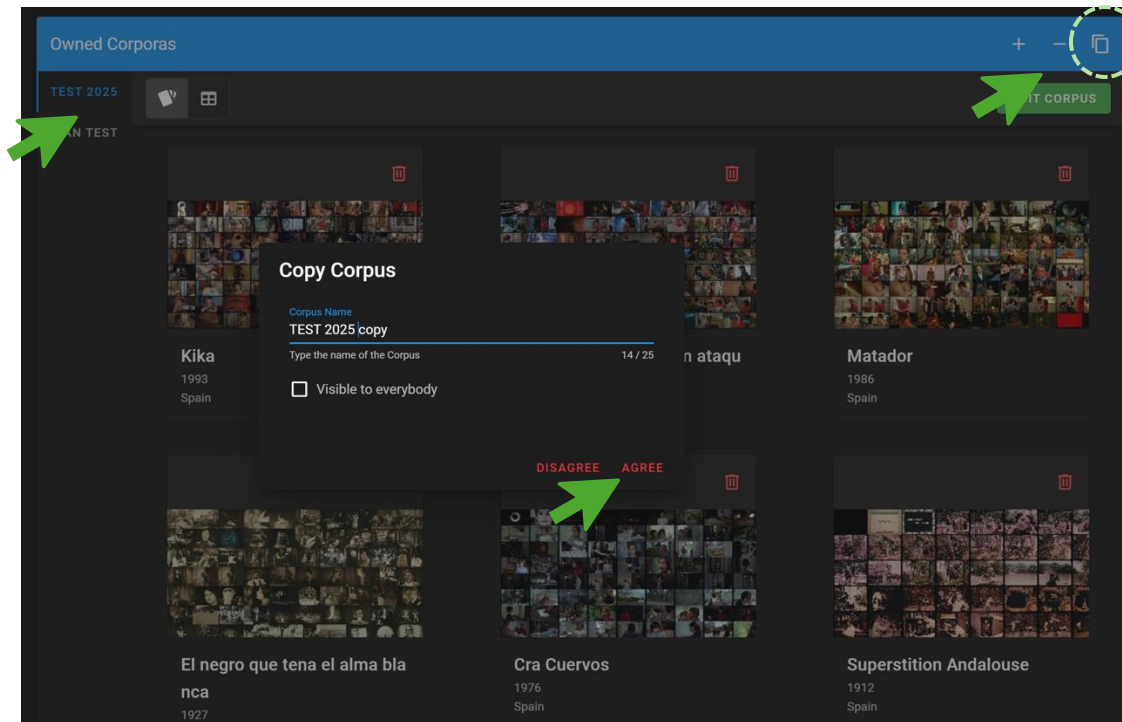


1. Chose the corpus you want to delete from the list (the selected corpus is shown in blue).
2. Click —
3. Click **AGREE**



DISAGREE is currently not working, if you want to cancel it, click somewhere outside the window.

Duplicate a film corpus



Duplicated corps must be renamed. The name you entered recently will automatically appear in the corpse name input field, so you need re-enter it accordingly.

1. Click the corpus you want to make duplicate (the selected corpus is shown in blue).
2. Click .
3. Enter the name of the new duplicated corpus.
4. Click **AGREE**



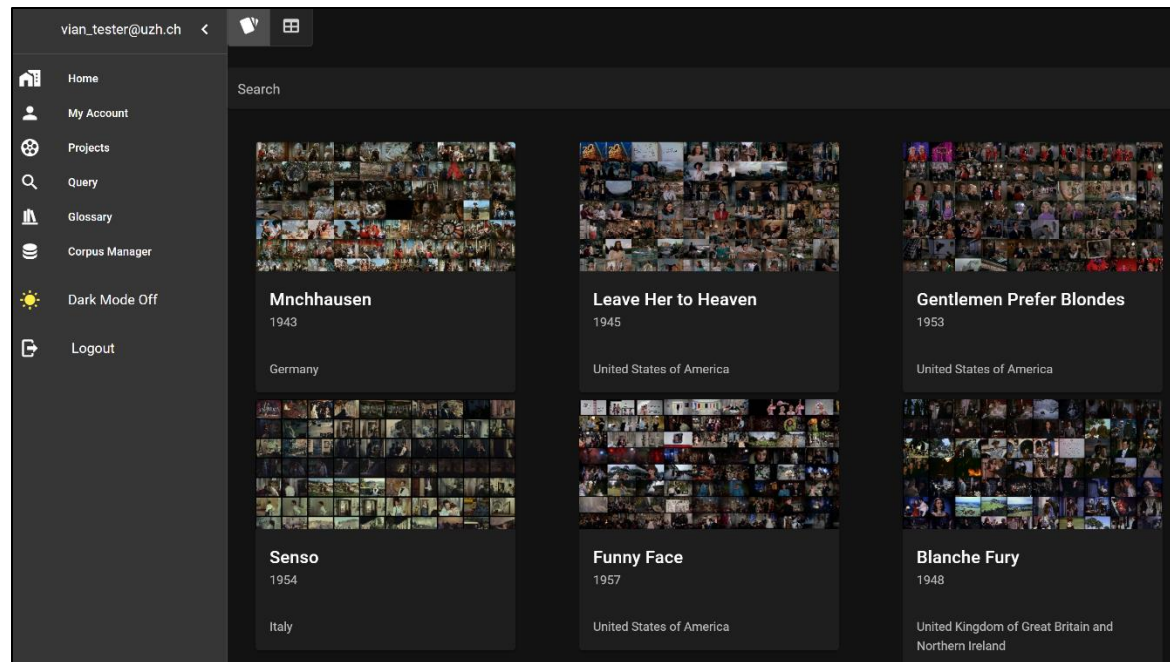
DISAGREE is currently not working, if you want to cancel it, click somewhere outside the window.

6. CHANGE THE DISPLAY MODE

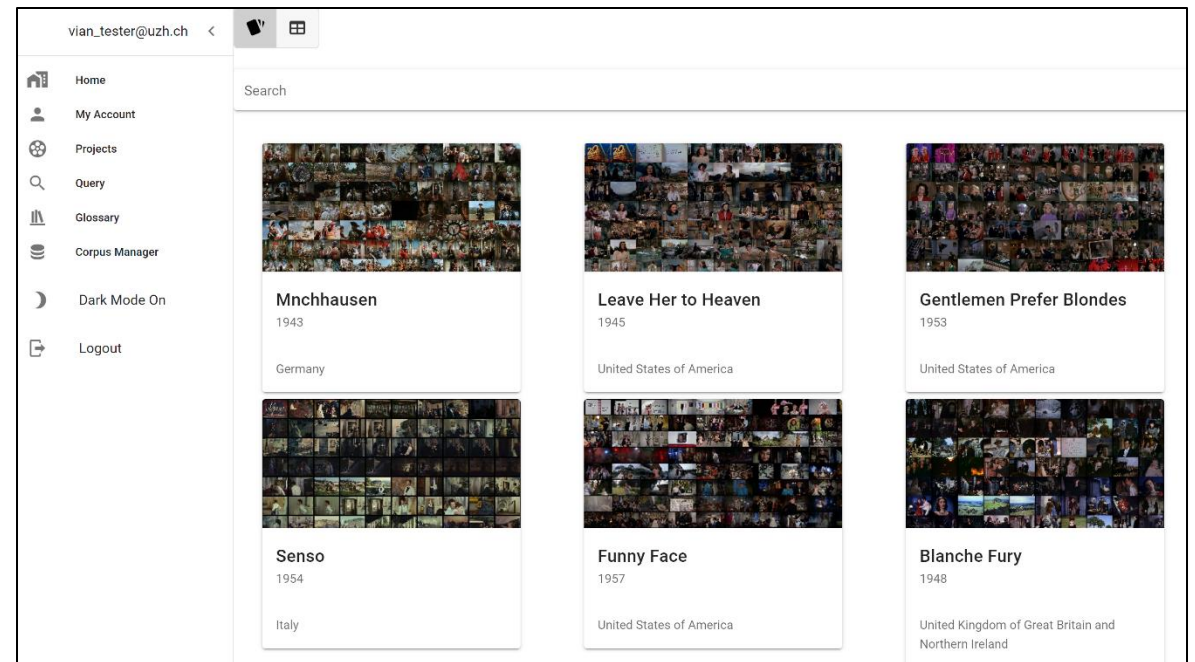
You can choose between two display modes: **Light** or **dark**.

- The default setting is dark mode.
- The mode can be changed at any time. The contents of the main window remain unaffected.

Dark Mode



Dark Mode **Off**



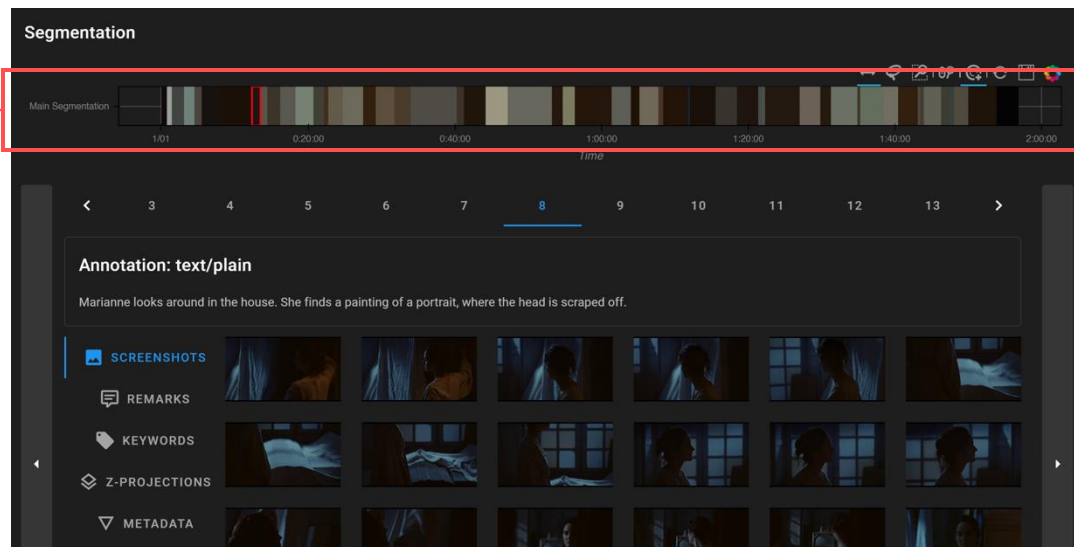
Explore a single film in detail

For example: I would like to investigate PORTRAIT OF A LADY ON FIRE (2019) in detail.

1. Go to **Projects**; search the film title.
2. Check the analysis data on the project page of the title.

Segmentation

- How is the whole movie segmented?
- What keywords are annotated to each segment?

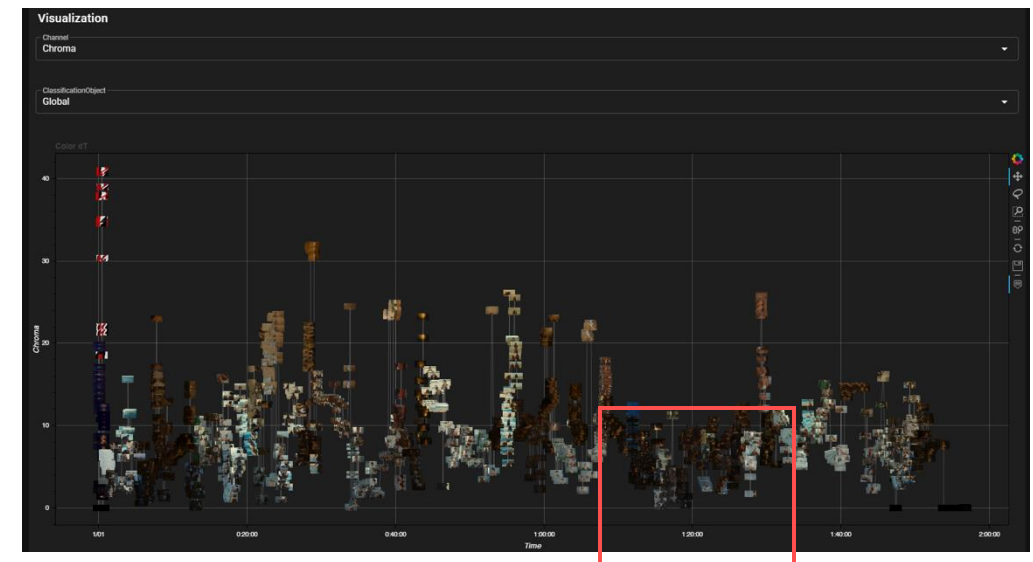


Scenes where average colors are dark are repeated over and over again.

- Are there many dark-lit scenes?
- How does it relate to narrative flows?

Visualization: Color dT

- What features of color can be observed?
- How does the luminosity of the shot vary within the work?



Here especially dark scenes

- What is happening here in the storyline?
- Which scenes are on the contrary bright? What kind of scenes?

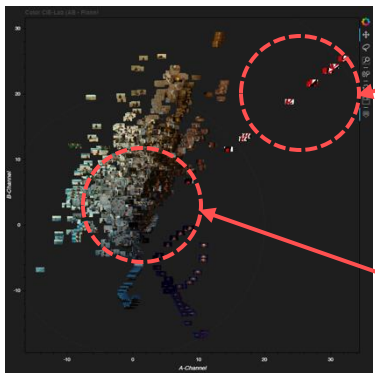
Explore a single film in detail

For example: I would like to investigate PORTRAIT OF A LADY ON FIRE (2019) in detail.

1. Go to **Projects**; search the film title.
2. Check the analysis data on the project page of the title.

Visualization: Color CIE-Lab (AB-Plane)

- What colors are dominant in which scenes?



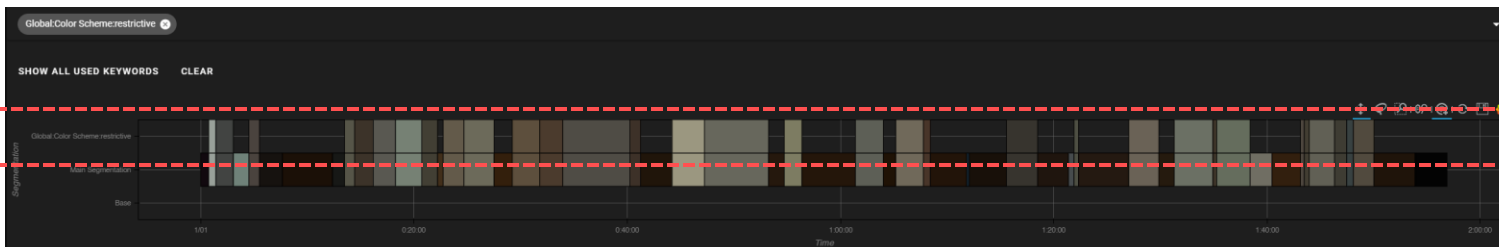
Average color of each screen shot:
red area is almost nothing... only in Logo

→ You can check also in Color dT/A-Channel (more A-value = more red components)

Average color of each screen shot:
Rather concentrated in the center.
(= grey)

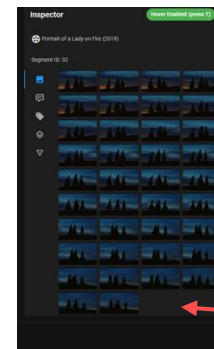
Visualization: Timeline

- Which keywords are annotated to which segments?
- You can check, if you find your own observation also in annotation.



Visualization: Color Palette CIE-Lab (AB-Plane)

- How does color palette look like?
- What colors are used in which scene?



Red seldom, but also used for a dress of a character.

How blue is used:
The blue in the film consists almost entirely of the color of the sky at night outdoors and the blue clothes worn by one character.

→ Is there any meaning for the use of blue for a dress?

“Color scheme”: almost throughout restrictive

Find a specific scene for further analyses

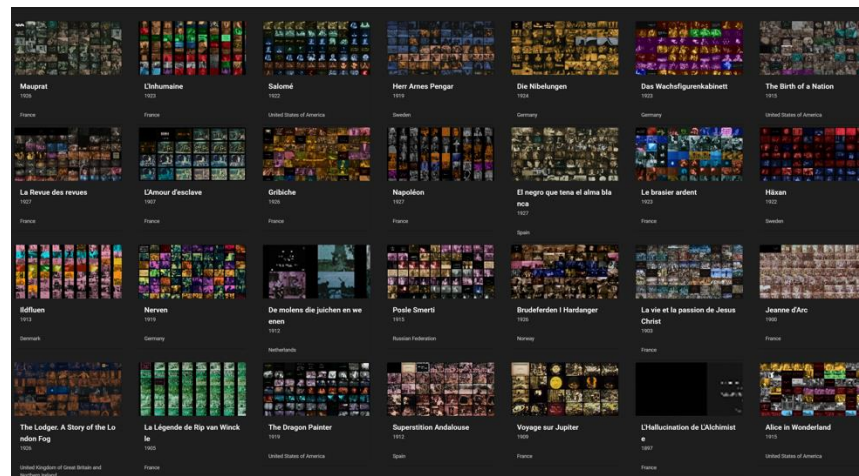
For example: I would like to investigate the depiction of **dream scenes** in **silent films**. But which films have the corresponding scenes?

1. Go to **Query**; select narratology “dream”, narrow down the production year

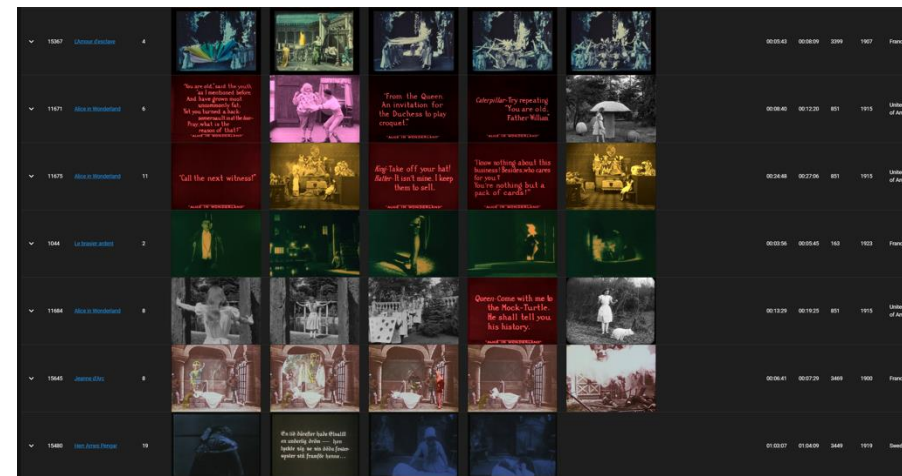
The screenshot shows a search interface with the following elements:

- Select a Subcorpus:** A dropdown menu.
- Production Year:** A range slider.
- Include Search Values:** A text input field containing "Global:Narratology:dream" and a "PICK FROM LIST" button.
- Exclude Search Values:** A text input field and a "PICK FROM LIST" button.
- Help:** A question mark icon.
- SEARCH:** A blue button.

2. You get the search results: under **PROJECTS** → film titles including **dream scenes** of specific period.



under **SEGMENTS** → Specific segments containing **dream scenes**.



Once you have the film title and segment, you can view more detailed information on that segment on the Projects page.

→ In which color is used?
→ Which keywords are annotated in the dream scene?

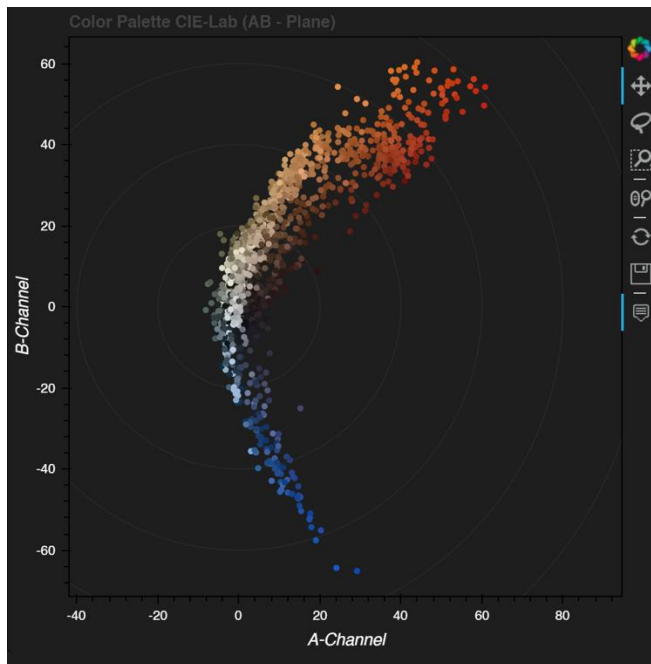
Compare color palettes

For example: I would like to compare the color palettes of films made with different color processes.

1. Go to **Projects**; search film titles, chose the projects
2. Check the visualizations (color palette)

Cinecolor

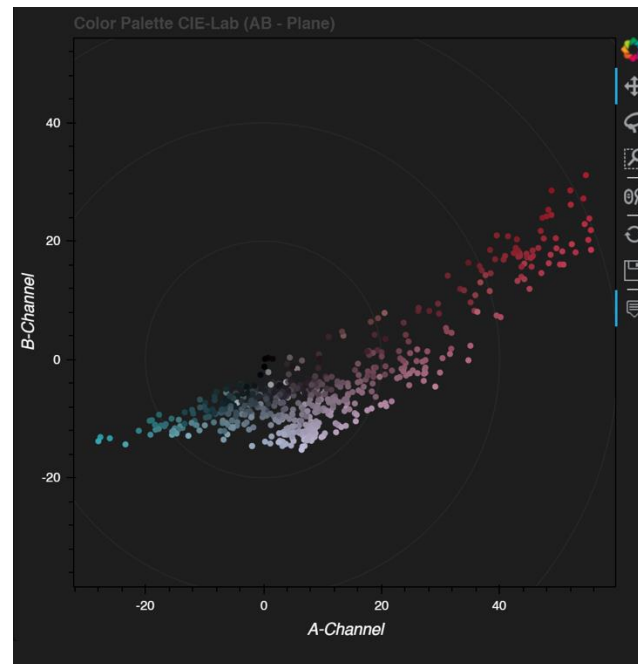
(subtractive 2 colors; red-blue)



ALADDIN AND THE WONDERFUL LAMP (1934)

Technicolor Nr. III

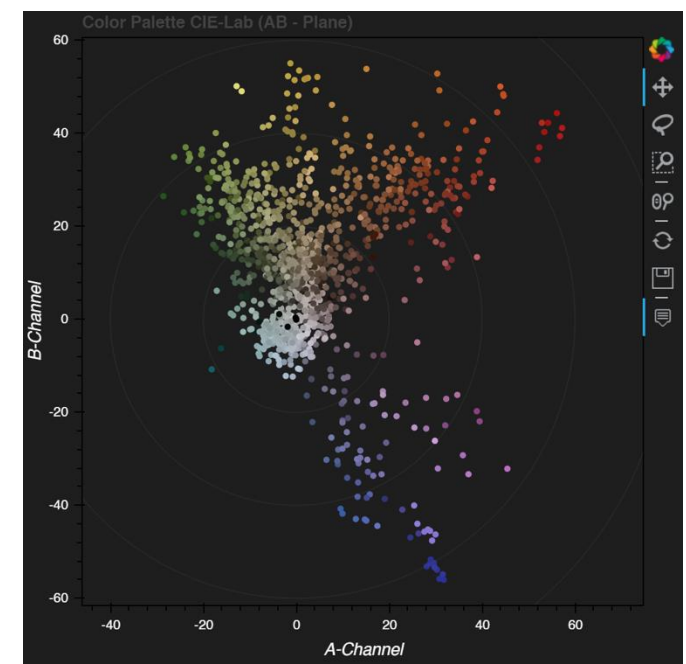
(subtractive 2 colors: red-green)



THOSE BEAUTIFUL DAMES (1934)

Technicolor Nr. IV

(subtractive 3 colors)



FUNNY LITTLE BUNNIES (1934)

There is a noticeable difference in the color palette between works made with the two-color system and those made with the three-color system. It also becomes apparent which areas of color are missing.