

# Rhythmus 21 by Hans Richter

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*Audio interpretation of Hans Richter's 1921 abstract film.*

## The Film

“The actual sphere of the film is that of moving space, moving shape, the moving line. Moving: i.e. multiple spaces, shapes, lines one after the other.

This space is not architecturally plastic, but temporal, i.e. the light forms spaces through changes in quality and quantity (light, dark, colour) that are not voluminous, but only through sequence make what becomes space, what if you look at the passage of time would only be shape, light, point.” — Hans Richter, 1923. (Richter, 1923)

Before creating music for Rhythmus 21, we have to understand the historical context and concept behind the film itself.

The film was conceptualised as an *absolute film*: i.e. a film where all “echoes of individual natural forms are stripped away, and only their mathematical shapes remain.” (Kurz, 1965, p. 86) As such it is an early piece of the *New Objectivity* (Neue Sachlichkeit) art

movement that focuses on clear forms and the wish of seeing objects objectively, as they are, without giving them an individual meaning. (Filmstudio, 1997)

In the video, the viewer can see different shapes being introduced and moving on the screen, interacting with each other and the space around them. They can be classified into four distinct groups: vertical and horizontal rectangles, squares and curtain-like objects covering and uncovering the picture. They are moving on a black or white background.

Hans Richter purposefully only used two-dimensional shapes in a two-dimensional space, which forced him to use other dimensions to create depth. Through this restriction, he establishes “perspective [...] only through the temporal dimension.” (Mueller Richter, 2012, p. 46) By resizing the shapes, making them smaller or bigger, he is able to create the illusion of them moving into the back or the front of the uniformly coloured surface. He embraces the sense of perspective by sometimes layering different shapes on top of each other, supporting that even further through various hues of white as the shape’s colour.

The film’s title, *Rhythmus 21*, was not chosen by accident. Richter focuses not only on creating perspective on a temporal axis but on making these movements in a rhythmically pleasing way. He, for example, frequently shows a shape or movement and repeats it oppositely right after. Sometimes even repeating entire sections of movement.

This way of creating rhythm and structure is somewhat similar to musical compositions. He not only uses musical language for creating these micro-interactions but also on the macro scale of the entire movie: sectioning it into exposition, development and reprise. (Mueller Richter, 2012, p. 47)

In the first movement of the film, Richter introduces all the different elements and shapes,

as well as the various forms of movement they take on the screen, acting as the exposition of the piece. After that, he develops these shapes, shows us more or less and plays around with them, escalating the number of them and their speed. This long section then leads into a counterpoint, where he still plays around with the shapes but has inverted their colours, creating a similar yet new feeling. After all that, he returns to only showing us a few geometries, where each gets its chance of saying goodbye, ending the piece by returning to the beginning (the reprise).

## **The Music**

The music is conceived in such a way as to support the film, its concept and visual simplicity without intruding or even distracting from it. In the tradition of *Minimal Music*, the score is reduced to its bare bones, comparing in simplicity to the film's focus on only some basic geometric shapes.

These simple musical elements each correspond to one of the four element classes described above: vertical and horizontal rectangles, squares and curtain-like objects. Each of those classes is assigned to a particular sound that is then modulated in correlation to the visual element being mimicked.

The film creates its sense of depth and movement on the temporal axis, but music generally already happens on the temporal axis as a function of amplitude over time, similarly to a two-dimensional shape that exists on its plane between the x and y-axis. Our music, therefore, needs a different axis, a new dimension for creating its sense of depth and space, the most noticeable of the available options is pitch. Each movement of each individual shape is linked to a modulation in pitch, creating the illusion of motion in the sound without change in depth through volume or reverberation. Similar to Richter's use of

time instead of the z-axis, this change in pitch creates depth and movement through a dimension usually not associated with space.

To increase the feeling of being fully immersed in a space that only shapes can occupy, almost becoming only a geometric representation of oneself, the sounds are placed around the listener's head using binaural ambisonics. Furthermore, this 360 degree of panning space around the viewer's head increases the space the music can use, further reinforcing the feeling of the emptiness of the black and white space.

The sonic shapes are supported by a layer of different drones. Creating a foundation of sound, modulated by chance operations whose outcome can never be predicted, that gives the rest of the soundscape a ground to stand on.

“A process is said to be aleatoric ... if its course is determined in general but depends on chance in detail.” (Meyer-Eppler, 1957)

Taking some hints from *Aleatoric Music*, meaning music where some parts are left to chance operations or the decision of the performer while the overall structure is still well defined, the starting pitches of each element are determined by chance, creating a different output each time. This can lead to some unintended harmonies or the opposite of them. Especially during the more crowded sections of the film, when more shapes are being displayed, this can lead to more and more disharmony, creating tension on top of an already hectic visual landscape of geometry.

Since the film itself has such a strong rhythmic structure, the music aims to use the template created by the picture instead of imposing a new and different rhythm that will eventually clash with the temporal structure of the original composition. Therefore the film is used as the score of the music; visual components directly correlate with musical

events. This strategy gives the original composer Hans Richter a controlling hand in the piece he indirectly conceptualised while automatically retaining the video's structure.

YouTube: <https://www.youtube.com/watch?v=r5vZBcQpHJI>

## References

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