

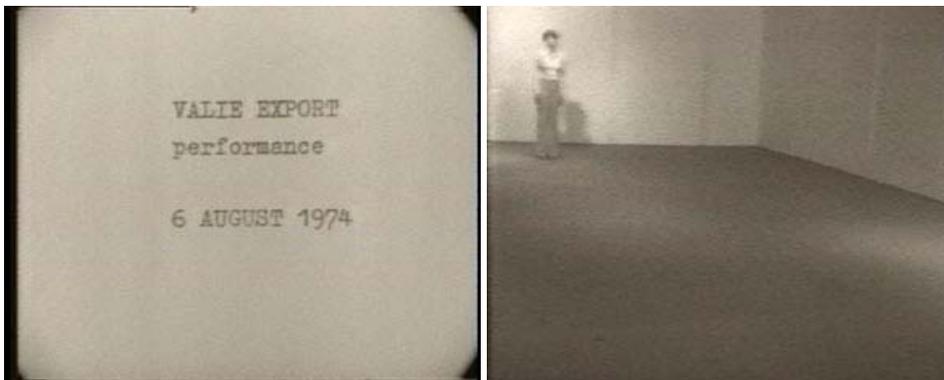
DOCUMENTATION

Identification

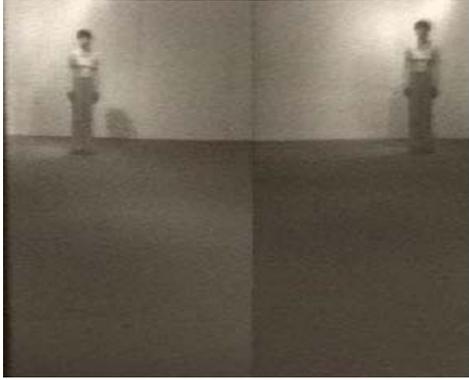
Artist:	VALIE EXPORT
Title:	Raumsehen und Raumhören
English Title	Seeing Space and Hearing Space
Year:	1974
Duration:	00:04:59 (With title)
Colour / Audio:	B/W / mono
Language:	None
Production format:	1/2" Open Reel Sony High Density for helical Scan video tape recorders V60H
Digitised format:	1/2" Open Reel Sony High Density for helical Scan video tape recorders V60H and U-matic Low Band
Data files:	16_export_RR.mov / 6,06 GB

Short description

The work shows a performance of EXPORT, in which she stands in one room. Sometimes you have a full screen; sometimes the screen is split vertically, showing EXPORT in one or two of the sides, either in full body or in close-up, closer or further away from the camera. The different camera angles create the illusion that EXPORT is moving in the room. These movements are accompanied by a corresponding sound, in a faster rhythm when EXPORT is further away, slower when she is closer.



The work starts with a typewriter written title and is followed by an image of EXPORT standing on the left-hand corner of a room. While this image is playing you hear VALIE EXPORT saying: *Raumsehen und Raumhören, von VALIE EXPORT Ton: Christian Michelis VALIE EXPORT 1974*“.



Afterwards the screen is split vertically and you see EXPORT standing in the back of the room on the left image and close to the camera on the right side image. The images in both sides then change every few seconds between close and far, and between left and right. This first sequence ends with an image of EXPORT closer to the camera on the left side of the screen and with her in the back of the room on the right side of the room. After this first block of changing images the screen becomes grey and another sequence, similar to the first but not exactly alike starts. In this second sequence the screen is again split in 2 and EXPORT is standing in the front on both sides of the screen.



At the end of this sequence there is again a grey pause and a third sequence starts, with an image of EXPORT standing in the middle of the screen and room. The whole sequence consists of whole screen images, either of the head or the whole body of EXPORT, and it finishes with the same image with which it started. There are no final credits.

Background

The closed circuit action took place on August 6, 1974, in Cologne. In this performance EXPORT just stood in the middle of the room and was filmed from different perspectives. When the visitors entered the room they could see the images of the video, where EXPORT seems to be moving from one place to the other, and compare them with the standing VALIE EXPORT.

The edited version was produced to illustrate the performance in the video catalogue of the "Projekt '74. Aspekte internationaler Kunst am Anfang der 70er Jahre, Kunsthalle, Cologne/Kölnischer Kunstverein, Cologne; organized by Wallraf-Richartz-Museum and the Kunst- und Museumsbibliothek, Cologne.

Technical Realisation

This work began as a performance, in which spectators would see the video and the room where EXPORT was standing. The performance was recorded with four video cameras and a mixer on an open-reel Sony CV tape. The ca. 18:43 minutes recording, which also exists as an independent document, was edited on U-matic to a video version with 4:54 minutes.

Editing

In the camera original EXPORT just says: "Raumsehen und Raumhören", VALIE EXPORT Ton Christian Michelis VALIE EXPORT, 1974" and the editing is done with the mixer and apparently by filming a black surface when there are changes in the image sequences.

For the video catalogue the 18:43 minute long video performance was shortened to about 04:59 minutes. A title was introduced, written with a typewriter on a sheet of paper and saying "VALIE EXPORT Performance 6 August 1974". The spoken title was kept. EXPORT then used sequences 2, 4 and 5 of the performance documentation to produce the edited version. (See the timelines at the end of the document for further details)

Available Versions

VALIE EXPORT made two tapes available, the 16/3 KO (Sony High Density for helical Scan video tape recorders V60H), which is the camera original, and the 16/4 SM, a U-matic LB tape with the edited version. We could also access a DVD edition from Barbara Gross Galerie Munich, which has no title and where the image sequences are different from both the camera original and the earlier edited version. This version is 06:19 minute long and black frames were introduced between the different sequences. From Montevideo, Amsterdam we received another version, 09:22 minute long which contains the first half of the performance. On this version the sound begins before the image, and there are no written titles.

Digitisation

The digitisation took place at the Laboratory for antiquated video systems in ZKM-Centre for Art and Media technology Karlsruhe.

Both tape 16/3-KO (Open reel) and 16/4-SM (U-matic) were digitised, in order to compare the content and image quality of the edited and unedited versions.

For the digitisation of the Open-reel tape a Sony AV 3670 player was used. The composite PAL signal was then corrected with a TBC (FOR-A FA 330P) and digitised with an IO-LA Box. The digitised signal was transferred over a Firewire connection (IEEE 1394a) with a transmission rate of 400 Mbit/s into the G5 computer. The software used to control the digitisation was Final Cut Pro. The data was then exported as QuickTime uncompressed 8-bit PAL, for the digital restoration.

The same setup was used for the U-matic tape, except for the player, a U-matic BVU-820P. A problem happened with the naming of the files, and the file and DVD that were identified as 16/3-KO correspond to the 16/4-SM.

Concept for the restoration

In the literature the references to “Seeing and hearing space” refer mostly to the performance itself, and not the edited video version, that appeared in the catalogue “Projekt 74”. This made the choice between which of the available versions to use more difficult. We opted to use the edited version, as this was the one that had been distributed.



Image from the open-reel camera original



Image from the U-matic edited Submaster



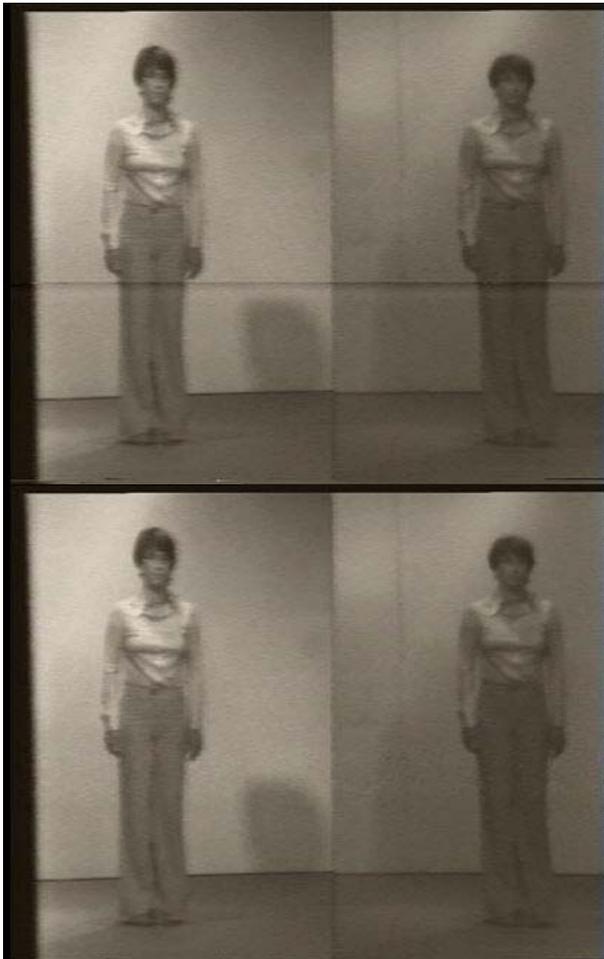
Restored image from the open-reel camera original version

From the comparison between the two versions we could see that the image quality of the U-matic was much worse than that of the open-reel tape. Especially in the highlights there were obvious losses of detail, and in general its condition was worse, with more defects and with quite strong image instability due to copying from open-reel to U-matic.



Example of edits done with the mixer

At the time of production this was a technically very elaborate work. Keeping the characteristics of the original edits, both the ones done with the mixer and the in-camera, was very important. Also, the title in the U-matic version should be kept.

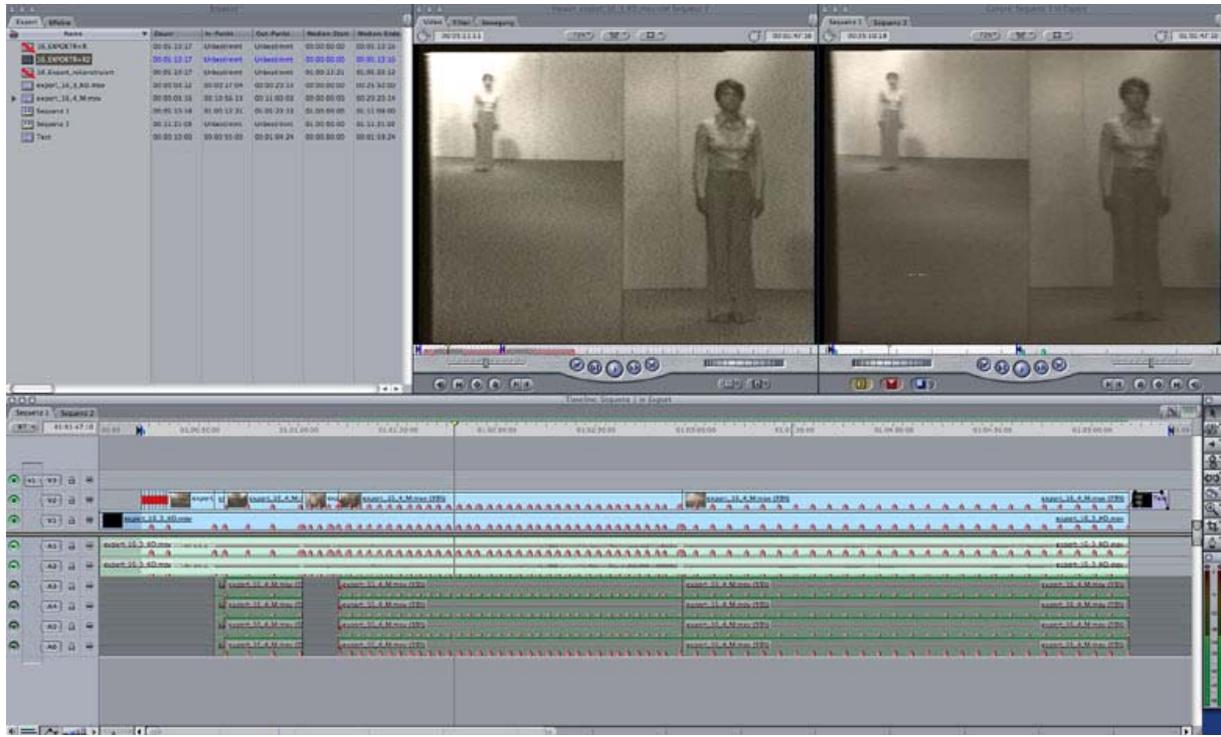


Unrestored frame from the Open-reel camera original and the same frame after restoration.

The main problem for the restoration were the drop-outs, which were frequent throughout the video, both small black or white ones and longer, frame wide black drop-outs. There were no places with whole frames missing. The drop-outs and image interferences should be removed as much as possible, either by interpolating image areas or by using the drop-out module in Diamant.

Digital Treatment

For the restoration we opted to use the material available from the camera original and to edit it according to the U-matic version. This allowed for a much better image quality than by simply restoring the U-matic version. The exception was the title, which was only available in the U-matic version.



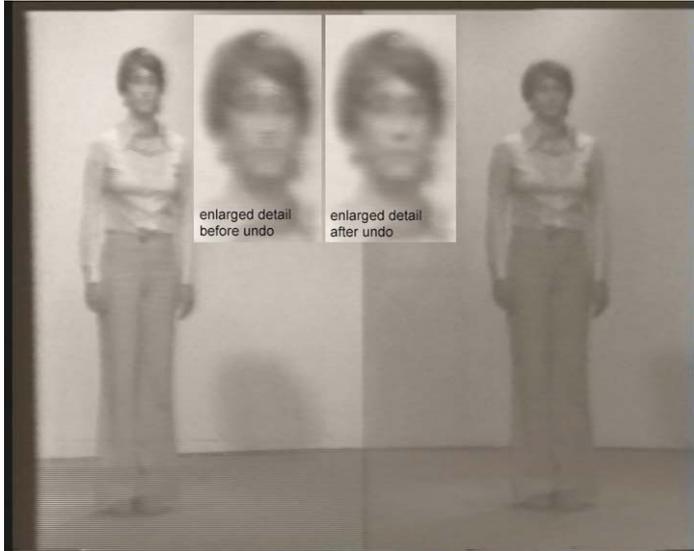
The performance consisted of different groups of movements, in sequences. This means that not all edits had to be done again, but only the moments where the sequences changed. We used sequences 2, 4 and 5 (see timeline of the tape 16/3-KO) to reconstruct the edited version, using the software Final Cut Pro to “assemble” this new file.

After the file was edited to its final format it could be imported into Diamant, as a QuickTime uncompressed 8-bit file. This file had then to be pre-processed, using the pyramid and stripe functions. The pre-processing steps are necessary for the software to analyse the information in the digital file, but will not change it in any way.

Before any treatment could be started the fields had to be split. Diamant was conceived for film, and the images in it are seen as whole images and not fields. If the video were to be treated without the “field split” Diamant would consider the lines to be errors and try to correct them. This would mean losing information where any of the tools was used. The “field split” tool prevents this problem by separating each field. After the treatments are performed one must only merge the fields again, and the line structure is kept.

Given the frequency of the drop-outs throughout the file it was useful to use a semi-automatic process for the restoration. By semi-automatic treatment we consider the use of the different tools over the whole file and protecting the areas where the program is likely to introduce errors. This can be done beforehand, marking negative regions of interest where problems are expected, or after the rendering comparing both rendered and unrendered images and using the undo tool in the areas where errors arose. At best one uses both processes, and the final verification is essential to prevent unwanted effects.

In this case, after a first rendering with the drop-out tool a close inspection was made and the areas where Diamant had changed image information were brought back to their original form with the use of the undo tool.



Unwanted alterations to the image



Automatically restored frame with alterations introduced by the Drop-out module



Same frame after the Undo function was used in the affected areas

The problem areas in this work were the connection lines between the wall and the floor and the small lines in EXPORT's body, like wrinkles in her shirt or her eyelashes.

After applying the undo function to the changed areas it was necessary to interpolate the errors that were "de-retouched".

These errors could be interpolated manually using the parameters: Local motion, Standard precision, ROI only, No temporal smoothing.

As a last step the fields were merged together again and then the restored file was exported, again as QuickTime uncompressed 8-bit.

Finally credits were added to the file, again using Final Cut Pro, stating that the artwork had been restored for the project 40yearsvideoart.de. The file was recorded as Digital Betacam for archiving purposes. The restored and unrestored 8-bit QuickTime uncompressed files are also being kept at the ZKM-Mediathek, in LTO tapes.

Timeline of the final restored work

#	Image	From h:min:sec	To h:min:sec	Total h:min:sec	Observations
1	Black	00:00:00	00:00:02	00:00:02	
2	Title "VALIE EXPORT Performance 6 August 1974"	00:00:02	00:00:09	00:00:07	
3	Begin- EXPORT on the upper left corner	00:00:09	00:00:23	00:00:14	
4	Title (spoken) „Raumsehen und Raumhören, von VALIE EXPORT Ton: Christian Michelis VALIE EXPORT 1974“	00:00:13	00:00:22	00:00:09	
5	Split screen with EXPORT on the right, far and on the left close/ EXPORT on the right, close and on the left, far.	00:00:23	00:00:49	00:00:26	
6	Black	00:00:49	00:00:50	< 00:00:01	
7	Split screen with whole body, close, images on both sides/ whole body, close, images on both sides	00:00:50	00:02:45	00:01:55	
8	Black	00:02:45	00:02:45	< 00:00:01	
9	Whole body, centred/whole body, cantered	00:02:45	00:04:59	00:02:14	
10	The work repeats once more, from the beginning, without the written title.	00:05:00	00:09:51	00:04:51	

Timeline of the tape 16/4-SM

#	Image	From h:min:sec	To h:min:sec	Total h:min:sec	Observations
1	Black	00:00:00	00:00:02	00:00:02	
2	Title "VALIE EXPORT Performance 6 August 1974"	00:00:02	00:00:09	00:00:07	
3	Begin- EXPORT on the upper left corner	00:00:09	00:00:23	00:00:14	
4	Title (spoken) „Raumsehen und Raumhören, von VALIE EXPORT Ton: Christian Michelis VALIE EXPORT 1974“	00:00:13	00:00:22	00:00:09	
5	Split screen with EXPORT on the right, far and on the left close/ EXPORT on the right, close and on the left, far.	00:00:23	00:00:49	00:00:26	
6	Black	00:00:49	00:00:50	< 00:00:01	
7	Split screen with whole body, close, images on both sides.	00:00:50	00:02:45	00:01:55	
8	Black	00:02:45	00:02:45	< 00:00:01	
9	Whole body, centred/whole body, centred	00:02:45	00:04:59	00:02:14	
10	The work repeats once more, from the beginning, without the written title.	00:05:00	00:09:51	00:04:51	
11	Unidentified work	00:12:41	00:21:54	00:09:13	
12	Black	00:21:54	00:21:58	00:00:04	
13	L.B.C. Videoproduktie Rotterdamse Kunststichting	00:21:58	00:24:36	00:02:38	

Timeline of the tape 16/3-KO

#	Image (first/last image of the sequence)	From h:min:sec	To h:min:sec	Total h:min:sec	Observations
1	Gray	00:00:00	00:00:09	00:00:10	
2	Start- EXPORT on the upper left corner/EXPORT on the upper left corner	00:00:10	00:06:21	00:06:11	
3	Spoken title: "Raumsehen und Raumhören, von VALIE EXPORT. Ton: Christian Michelis VALIE EXPORT. 1974 »	00:00:15	00:00:24	00:00:09	
4	Gray	00:06:21	00:06:44	00:00:23	
5	2.sequence EXPORT standing in the back, left and in the front, right/EXPORT standing in the front, left and in the back, right.	00:06:45	00:07:14	00:00:29	
6	Gray	00:07:14	00:07:45	00:00:31	
7	3.sequence EXPORT standing on the upper left corner/EXPORT standing on the upper right corner	00:07:45	00:10:17	00:02:32	
8	Grey	00:10:17	00:10:38	00:00:21	
9	4. Sequence EXPORT standing in the centre, on both sides of the screen/ EXPORT standing in the centre, on both sides of the screen	00:10:39	00:12:33	00:01:54	
10	Grey	00:12:33	00:13:00	00:00:27	The first frame has half of grey and half of image.
11	5.sequence EXPORT standing in the middle of the	00:13:00	00:15:19	00:02:19	

	room and screen/ EXPORT standing in the middle of the room and screen				
12	Grey	00:15:19	00:15:59	00:00:40	
13	6. Sequence Split screen, left half of EXPORT's body on the left side, right side of EXPORT's head on the right side/ left half of EXPORT's body on the left side, right side of EXPORT's head on the right side	00:15:59	00:18:43	00:02:44	
14	Grey	00:18:43	00:18:59	00:00:16	The frame freezes

Digitisation forms

Di gi ti sati on		Type	Source	File size	Stored in
Information Support	1	16/4-SM-(U-matic LB), 1974	VALIE EXPORT		
Techni cal i nformati on		Vi a device	Capture Card	Norm	Adj ustments
		U-matic BVU-820P	AJA I0-LA Box Through a Firewire-connection (IEEE 1394A)	Composi te Pal , 8-bi t uncompressed PAL	
		TBC FOR_A FA-330P			

Di gi ti sati on		Type	Source	File size	Stored in
Information Support	1	16/3-K0-Sony High Density for helical Scan video tape recorders V60H, 1974	VALIE EXPORT		
Techni cal i nformati on		Vi a device	Capture Card	Norm	Adj ustments
		Sony AV 3670	AJA I0-LA Box Through a Firewire-connection (IEEE 1394A)	Composi te Pal , 8-bi t uncompressed PAL	
		TBC FOR_A FA-330P			

Restoration forms

Artist:	VALIE EXPORT
Title:	Raumsehen und Raumhören
Sequences:	

Sequence:		
Work step:	Tool :	Parameters¹:
Original	Field split	
R_01		Automatic Drop-out module
R_02	Undo	To R01 for 112 scenes the line between floor and wall was "undone".
	Interpolate frames	Local motion Standard precision ROI only No temporal smoothing
R_03	Interpolate frames	Local motion Standard precision ROI only No temporal smoothing
R_04	Merge Fields	
R_05	Undo	Shirt, Chest (Shadow Areas) 85 scenes had to be worked, eyelashes,
	Interpolate frames	
R_06	Interpolate frames	Where the errors appeared again because of the undo

¹ The parameters for the Drop-out module are in the following order- Interframe Threshold, Sensitivity. Minimal Drop-out Length, Comparison basis (in Lines)

Tapes



16/3-KO- Sony High Density for helical Scan video tape recorders V60H



16/4-SM- U-matic LB