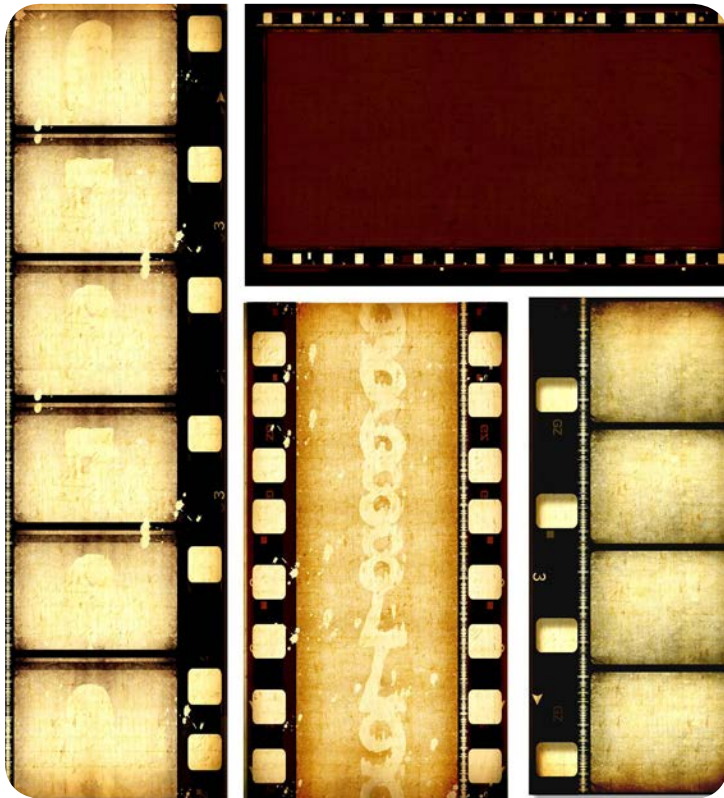


# THE IMAI FOUNDATION

## CATALOGUING TIME BASED MEDIA



The City of Düsseldorf established the inter media art institute (imai Foundation) in 2006 as an archive to care for an acquired video collection. The archive contains around 3,000 works of Time Based Media art, and provides context to the history of Time Based Media from the 1970s through today. As the collection expands to include contemporary artists, imai has made protecting, conserving, and cataloguing the collection a top priority.

“Before, if we wanted to catalogue all of the details about the multiple tapes and copies for our Time Based Media collection, it would become very complicated. TMS makes the job so much easier.”

- HIROKO KIMURA-MYOKAM, RESEARCH FELLOW AT THE IMAI FOUNDATION



### OVERVIEW

- 3,000+ objects in collection



### PROJECTED RETURN ON INVESTMENT

- System for documenting Time Based Media
- Preservation of files for the future
- More efficient use of storage space
- Streamlined workflows
- Greater access to media and information



### PRODUCTS

- The Museum System (TMS)



### TEAM

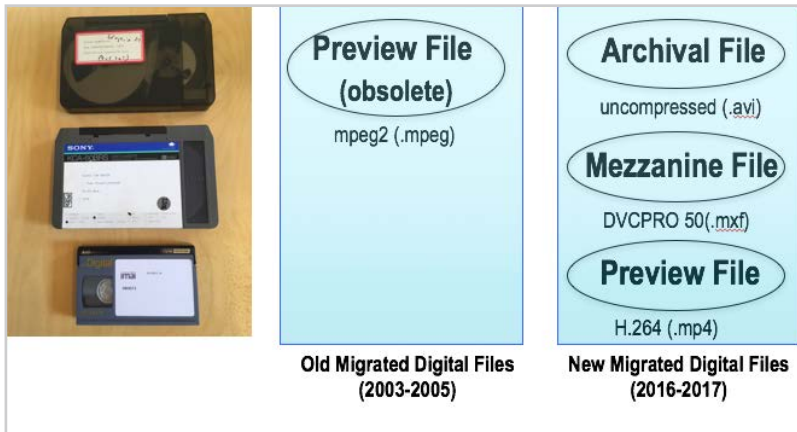
- Dr. Renate Buschmann (Direction)
- Hiroko Kimura-Myokam (Research Fellow)
- Michalis Nicolaidis (Research Fellow)
- Angelika Gwozdz (Assistant)
- Jessica Gilles (Assistant)
- Hanna Koch (Assistant)
- Nora Krause (d:kult)

**CHALLENGES**

In 2016 the imai Foundation launched a two-year project, funded by the Rhineland Regional Council, to preserve and catalogue their Time Based Media collection. Cataloguing and protecting Time Based Media is a different process from cataloguing other objects, as Hiroko Kimura-Myokam, a team member of the long-term archival project, explains, "When you have one painting, you create one object record. But with Time Based Media, the materials become obsolete and degrade, and there are multiple pieces in different formats that need to be catalogued. They're not all physical objects, and they're not all collection objects." The team at the imai foundation needed a plan to protect their collection and catalogue it appropriately without overly convoluted workflows.

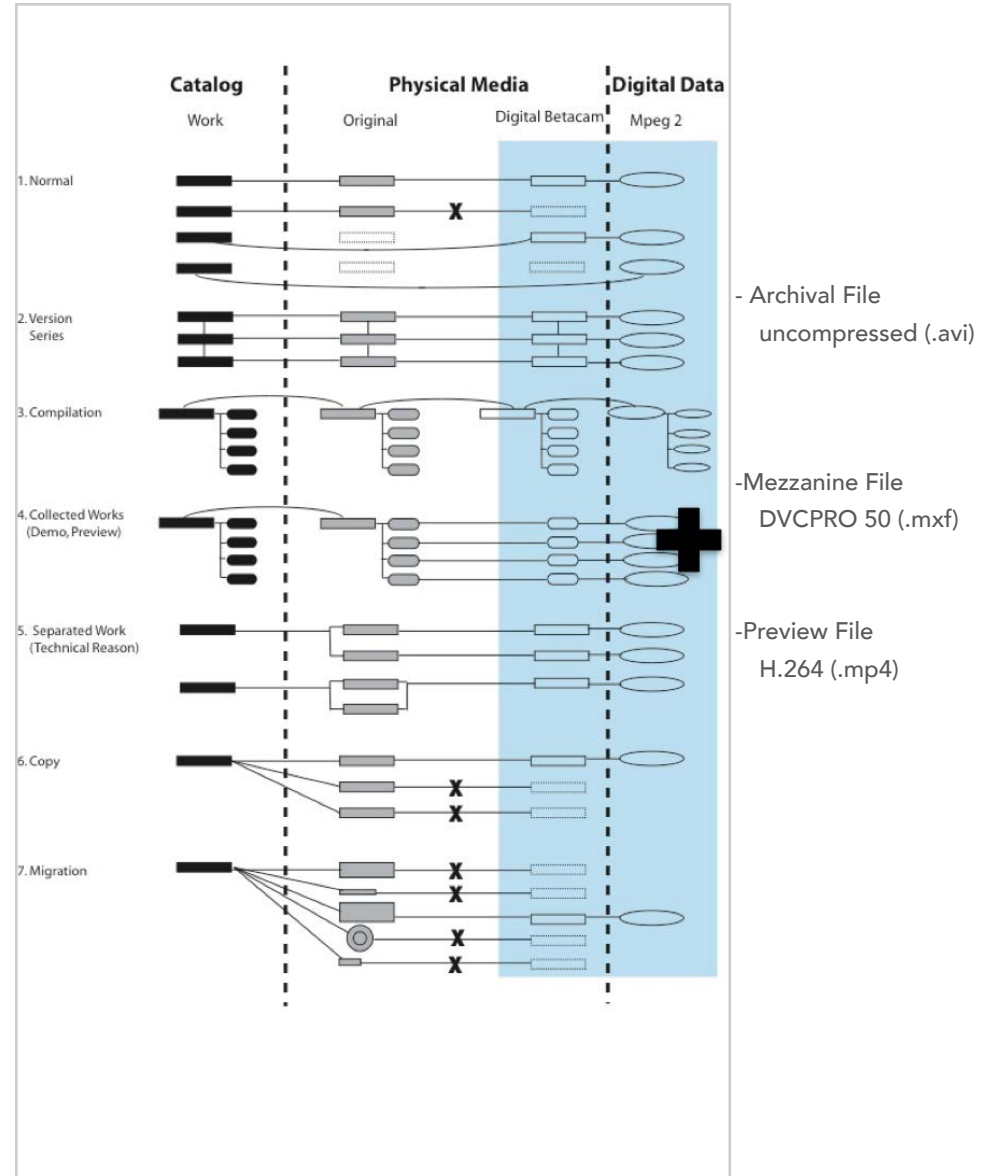
Further complicating the project, a previous digitization effort conducted in 2003 produced archival video copies in the format of Digital Betacam Tapes and mp2-files, which have since become outdated.

**Single- Channel Video Work Plural Cassette Tapes and Digital Files**



Many of the works in the imai collection have multiple physical objects or data associated with them, such as the digital copies.

**New Migrated Digital Files (2016-2017)**



Hiroko says, "The reality we faced was that the archive repository and server were both full of plural tapes and files for single channel video works. These files and objects became obsolete after our second digitization project." Beginning in 2016, the team worked with a digitization agency to create three new digital files for each object: an archival file, a preview file, and a "mezzanine" file, a digital master file that can be duplicated for additional viewing. After digitization, the team documented the history of the objects and both digitization projects.



## PROJECT

After building their new file repository, the team planned their cataloging process, making a distinction between the video object and the equipment related to displaying it. Hiroko explains more about the collections objects, "imai doesn't exhibit the objects. This meant that we only had the single and multi-channel Time Based Media works to document, and weren't concerned with any equipment that would be used to play the videos in the collection."

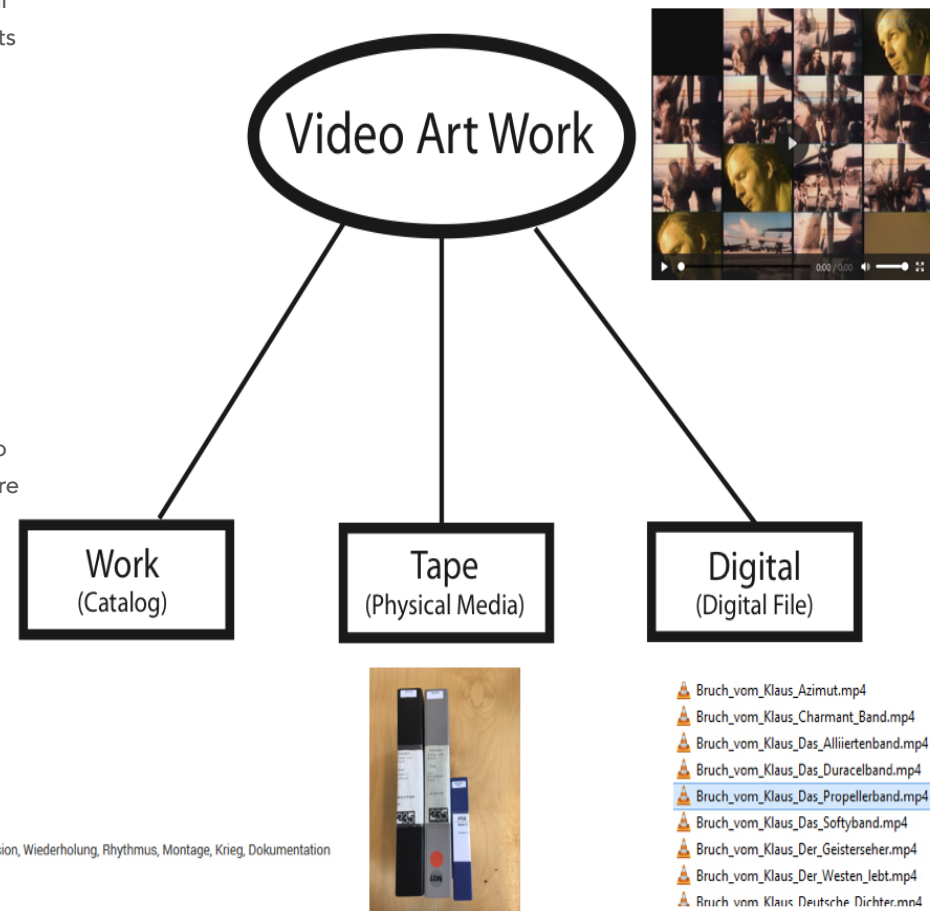
Developing a strategy to document the Time Based Media works helped to create a system to document the entire collection, although Hiroko knew there would still be challenges, "The biggest problem was figuring out how to describe the copies and migration history in our database system."

After joining the digital network of Düsseldorf (d:kult), cultural institutions that share the same database, the imai Foundation began using The Museum System (TMS) collections management system, which gave them the opportunity to significantly improve their process. "Before, if we wanted to catalogue all of the details about the multiple tapes and copies for our Time Based Media collection, it would become very complicated," recalls Hiroko. After careful consideration, Hiroko's team used Departments and Flex Fields in TMS to their advantage to include exactly the information they needed for their records.

**Bruch, Klaus vom**  
Das Propellerband  
DEU (1979)  
Duration: 30:00  
Keywords: Technik, Aggression, Wiederholung, Rhythmus, Montage, Krieg, Dokumentation



## Concept Diagram of the imai Database



## Metadata and Relationship Hierarchy: Hierarchy of Records and How They Relate

The screenshot shows a web-based interface for a museum system. The left sidebar displays a hierarchical tree structure under the heading 'IMAI W.192. Gábor Bódy, Der Dämon in Berlin: Zur Anthologie der Verführung'. The tree is organized into three main sections: 'Band', 'Daten', and 'Migrationen'. The 'Band' section includes 'IMAI DB0064, 235 Media, Band, 2004' and 'Migrationen'. The 'Daten' section includes 'IMAI bodyddb2 mpeg, 235 Media, Ansichtsdatei: bodyddb2 mpeg, 2' and 'IMAI D.192.D1, Westdeutscher Rundfunk <Köln>, Mezzanindatei: E'. The 'Migrationen' section includes 'IMAI D.192.D2, Digital Heritage, Mezzanindatei: Body\_Ga', 'IMAI D.192.D3, Digital Heritage, Archivdatei: Body\_Gabor', and 'IMAI D.192.D4, Digital Heritage, Ansichtsdatei: Body\_Gat'. The main content area on the right shows a detailed view of the selected record, 'Der Dämon in Berlin: Zur Anthologie der Verführung', with the following metadata: 'The Demon in Berlin', 'Künstler: Gábor Bódy', '1982', '1-Kanal Video', 'Dauer: 00:28:00', and 'Objektnummer: IMAI W.192'. The word 'Work' is overlaid in red on the right side of the interface.

### SOLUTION

To properly catalogue the works and avoid losing important information on the related physical objects or files, the imai team created one object record for the original artwork, one object record for the physical object, and one for the digital file. Then, they created a Departments authority list to classify data for the work, physical object, and digital files. Records labeled with the Department name Work contain basic descriptive cataloging for the object, Tape records describe the physical media, and File object records describe the digital data associated with a digital copy.

“There’s a gap in technology between the physical and digital files, and the physical media and digital files both require their own metadata scheme. That’s why we separated the data into three different Departments,” says Hiroko. “Each piece has a different entry form and is independent but related to the other.” This is where the team relied on user-created custom forms and Flex Fields.

**Virtual Object** | Freigabe CDB/Europeana | Freigabe Internet | 1 / 11

**imai Werke** | Klassifizierung: Tonbewegtes Bild-elektronische Kunst-Film

**IMA1.W.192 Work ID**

**Andere Nummern**

Andere No.	Beschreibung	Bemerkung	Anfangsd.	Enddatum
192	ID aus Abst.	Sub WVK ID		

**Objektbezeichnung** | **Signatur** | **Objektstitel** | **Titel** | **Der Dämon in Berlin: Zur Anthologie der Verführung**

**Querverweise Person oder Institution auf Objekt** | **Author** | **Year of Creation** | **Duration** | **Color** | **Material/Technik (Katalog)** | **Work Form**

**Querverweise Geographie** | **Production Country** | **Verschönerung** | **Keywords** | **Description**

**Texteingaben**

Datum	Textart	Autor	Text
02-Jul-2016	Abtaten aus Konvertierung	Stiftung imai	Kunstname: Bödi Gábor
02-Jul-2016	Abtaten aus Konvertierung	Stiftung imai	Produktionsland: DE

### Metadata and Relationship: "Work" Department

**Related Records**

- Objects
  - Band **Tape**
    - IMA1.DB0064, 235 Media, Band, 2004
    - IMA1.N0124, Gábor Bódy, Band, ca. / c. 1982
  - Dateien **Digital Data**
    - IMA1.bodyddb2.mpeg, 235 Media, Ansichtsdatei: bodyddb2.mpeg, 2004
    - IMA1.D.192\_D1, Westdeutscher Rundfunk <Köln>, Mezzanindatei: Body\_Gabor\_Der\_Daemon\_in\_Berlin.mov, 2015
    - IMA1.D.192\_D2, Digital Heritage, Mezzanindatei: Body\_Gabor\_Der\_Daemon\_in\_Berlin.mxf, 2016
    - IMA1.D.192\_D3, Digital Heritage, Archivdatei: Body\_Gabor\_Der\_Daemon\_in\_Berlin.avi, 2016
    - IMA1.D.192\_D4, Digital Heritage, Ansichtsdatei: Body\_Gabor\_Der\_Daemon\_in\_Berlin.mp4, 2016
- Constituents

**Virtual Object** | CDB/Europeana | Public Access | 1 / 1

**imai Band** | Klassifizierung: Tonbewegtes Bild-elektronische Kunst

**IMA1.DB0064** | Object Name: Band

**Alternate Numbers**

Alternate	Description	Remarks	Begin Date	End Date

**Medium** | **Media Format** | **Cassette Maker** | **Cassette Model** | **Production Year of Tape** | **Date of Acquisition** | **Tape Duration**

**Flex Fields**

Name/Group Name	Value	Date	Remarks
Werk auf Band (imai)	192		
TONanlage	CH1, CH2		
Nummer Werk	192		
Farbe	Farbe		
Ton	Stereo		
Farbfernsehnorm	PAL		
Systemeinhalt	4:3		
Time Code	LTC (longitud.)		
CBin	(not assigned)		
BBin	(not assigned)		
TCin	10:02:30		
TCout	10:29:01		
Loop	(not assigned)		

**Text Entries**

Date	Text Type	Autor	Text
	Abtaten aus Konvertierung	Stiftung imai	Status in der Sammlung: Archivkopie

### Metadata and Relationship: "Tape" Department

**Related Records**

- Migrationen
  - IMA1.bodyddb2.mpeg, 235 Media, Ansichtsdatei: bodyddb2.mpeg, 2004
  - IMA1.D.192\_D1, Westdeutscher Rundfunk <Köln>, Mezzanindatei: Body\_Gabor\_Der\_Daemon\_in\_Berlin.mov, 2015
  - IMA1.D.192\_D2, Digital Heritage, Mezzanindatei: Body\_Gabor\_Der\_Daemon\_in\_Berlin.mxf, 2016
  - IMA1.D.192\_D3, Digital Heritage, Archivdatei: Body\_Gabor\_Der\_Daemon\_in\_Berlin.avi, 2016
  - IMA1.D.192\_D4, Digital Heritage, Ansichtsdatei: Body\_Gabor\_Der\_Daemon\_in\_Berlin.mp4, 2016
- Migration von

**Related Records**

- IMA1.D.192\_D2, Digital Heritage, Mezzanindatei: Body\_Gabor\_Der\_Daemon\_in\_Berlin.mxf, 2016
- IMA1.D.192\_D3, Digital Heritage, Archivdatei: Body\_Gabor\_Der\_Daemon\_in\_Berlin.avi, 2016
- IMA1.D.192\_D4, Digital Heritage, Ansichtsdatei: Body\_Gabor\_Der\_Daemon\_in\_Berlin.mp4, 2016
- Migration von
- Werk
  - IMA1.W.192, Gábor Bódy, Der Dämon In Berlin: Zur Anthologie der Verführung, 1982

Using parent-child relationships, and 'see-also' links, Hiroko's team connected object records that were related to one another, and copies or digitized versions of the original work.

Each record is defined by a Department, and the corresponding metadata structure for that Department is assigned to the object record. As each Department has different requirements for what data is entered, the Department assignment helps to automate the Flex Fields each record should have. That way, fields don't have to be adjusted for every new record, they're simply available when an object record is assigned a specific Department.

In addition to the objects included in their archival process, imai has also used a similar process to create relationships for multiple Time Based Media works that have a connection, such as works with multiple versions, works that are a part of a series or a trilogy, and works that are part of a compilation. Hiroko explains, "If the work is a trilogy or series, the main title and three parts are linked through the parent-child relationship, and compilation works are treated in the same way."

When cataloguing variant works, the process is a little different. "We consider variant works such as long versions, short versions, different language, and so on, as different works," describes Hiroko. "It can be difficult to decide which work is the main work. Therefore, variant works are linked through 'see-also' connections, not parent-child connections."

## Cataloguing a Trilogy

**imai Werke**  
**IMAI.W.1456**

Massifizierung  
 Ton/bewegtes Bild/elektronische Kunst-Film

Alternate N.	Description	Remarks	Begin Date	End Date
1456	ID aus Altat...	Sub Werk ID		

Object Name:  Signed:

Object Titles:

Object Related Constituent Xrefs:

Related Records:

- Objects
  - Band
    - IMAI.DB0434, Band
    - IMAI.DB0435, Band
  - Teilwerke
    - IMAI.W.498, Rotraut Pape, Teil einer Trilogie 1: Die Flieger Trilogie #1: Der hass unserer Begeisterung, 1984
    - IMAI.W.1457, Rotraut Pape, Teil einer Trilogie 2: Die Flieger Trilogie #2: Ein hoch auf das Bügeln, 1984
    - IMAI.W.1458, Rotraut Pape, Teil einer Trilogie 3: Die Flieger Trilogie #3: Chemical and Physical Discoveries, 1984
- Constituents
  - Stiftung imai
  - Rotraut Pape

Geography Xrefs:

Type	Value	Path	Remarks
Produktionsland	DEU	<nations>...	Quelle

Short Text 08:

## CONCLUSION

Hiroko's team and the imai foundation have worked hard to develop a system to properly archive their Time Based Media collection. Their focus to digitize and catalogue their collection is nearing completion, and Hiroko is excited to see what's next for the team. She tells us, "The next step is to connect related archival materials with the works we've already catalogued in the database. This includes additional materials like still images, contracts with artists, conservation and quality check reports, and any other materials that are linked to the works."

Hiroko's team will focus on improving imai's online catalogue and adding more research materials to their online platform. The team is also interested in incorporating keywords into their online platform, and elevating their use as finding aids, "We've added a keywords field in the Work Department, so we can export keywords to the digital catalogue," says Hiroko. Her team hopes their work can help other museums, and potentially be used as a model to add to the broader conversation of working with Time Based Media and other complex collection pieces.

### Cataloguing a Variant Work

## imai Werke

### IMAI.W.178

**Klassifizierung**  
Ton/bewegtes Bild/elektronische Kunst-Film

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**Alternate Numbers**

Alternate N...	Description	Remarks	Begin Date	End Date
178	ID aus Altdat...	Sub Werk ID		

**Object Name**

**Signed**  Signature nutzen für "Rechtsschutz innerhalb des Hauptwerkes"

**Object Titles**  
Tanz für eine Frau

**Object Related Constituent Xrefs**  
Künstler: Ulrike Rosenbach, geboren 1943

**Related Records**

- Objects
  - Band
    - IMAI.DB0449, Band
    - IMAI.DB0478, Band
    - IMAI.DB0482, Band
    - IMAI.N0772, Band
  - Datei
    - IMAI.roseffe2.mpeg, 235 Media, Ansichtsdatei: roseffe2.mpeg, 2004
  - Version
    - IMAI.W.1839, Ulrike Rosenbach, Version (ZKM): Tanz für eine Frau, 1975/2005
  - Werke
    - IMAI.W.1839, Ulrike Rosenbach, Konzeption, Objekt, Media: 1975-1998, 1975-1998

**Geography Xrefs**

Type	Value	Path	Remarks
Produktionsland	DEU	<nations>...	Quelle

**Short Text 08**

Gender, Tanz, Klischee, Liebe