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Cinéma et audiovisuel :
quelles mémoires numériques pour l'Europe ?

CHANGEMENTS DANS LES PÉRIMÈTRES DE LA CULTURE

Danish film heritage in a digital context

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I am not going to talk about Denmark as a nation but I will talk about the Danish Film Institute as an institution and the projects we are involved with in bringing Danish national heritage to the floor. I will also talk about digital in general since that still seems to be a relevant issue. I loved the logo for Archimages08 where you see the digital A falling apart, whereas maybe the analogue will stay. I do not know if there was something intended by that but at least some of us think that for the relative future that is the view of the world that we have.

The Danish Film Institute collection is a national film collection and we hold more than 50,000 hours film, we have quite a few videos in our collection as well and that is the collection which is at urgent risk. We have a sizable photo collection and also a sizable documentation collection of clipping, files and promotional materials and film programs and also books.

We are a small country but we are also a rich country so in a sense we have some nice intelligent politicians who listen to us when we come up with good arguments for preservation of heritage, they understand that heritage is important and also we made a very good business case for analogue preservation of our film collections. Basically film collections and the film medium is fantastic for long-term preservation of high quality imagery. As you can see here we run our stores, we have just finished a new state-of-the-art nitrate film store which runs at minus five degrees and 35% relative humidity. Our goal is that any collection we hold should have a life expectancy of around 500 years. The figure you see here is if you take a new film, put it in a five degrees store and leave it there for 500 years, you should be able to take it out and see no visible change in the content of the material. Of course that is not how it works; usually you take out at least the top 5% of the material every 15 or 20 years when a new video or broadcast format comes around. So we will be taking out all of the masters again over the next 15 years to make HD or to have the right holders, take it out and make new HD video masters of those elements. One of the issues in film archiving is that the most important material is also the material that is at most risk of being actively destroyed because it is actually being handled more than the material that nobody wants to touch.

Video is a different medium, the 15 years is relevant both for analogue and digital video. I would not trust a DV tape to have 15 years, even in proper storage. This is not bad for electronic media but it is still better than digital as such, it is not what we would call a long-term preservation grade.

Digital preservation

Regarding film images you need to think ahead once you get into this domain. If somebody stops paying their electricity bill, your material will be gone. We are not talking about days, if the servers are down and the raid is not running things can get lost rapidly. Whereas with film, as we know we are still finding films in lofts and so forth and even though it is 50 or 100 years old, some of it is still in good shape. For a full quality transfer we are talking about one hour of negative colour material taking up one terabyte of data, so that is the amount of data that we hold on film. One hour of film in plastic terms may be ten to fifteen kilos of plastic, about 2,000 metres of celluloid, for terabytes it is a bit more daunting. Most people today work with 2K but we are still talking one terabyte per hour. Uncompressed video, standard definition which is what we are seeing people coming up with; most of the large broadcasters in Europe have stores for maybe not uncompressed video, this is the equivalent of about 120 megabits per second. Most broadcasters are maybe looking at about 50, so about half the quality and also half the size. We are still talking about serious data stores here.

Currently if you go out on the market and ask somebody to store one terabyte in a proper way for you, you are looking at about 8,000 Euros per year. As you can see, a 35 millimetre analogue film master is about two years cost of digital preservation of that same entity. Of course film is not always a very useful format for use but it is also quite rare that you would want to use full-grade motion picture film.

This chart shows the unpleasant truth that size does matter. It might be something men do not want to talk about too much but most of the images that we have seen here is stuck somewhere down here. We have not been seeing full quality broadcast television, what we have seen is highly compressed material. Broadcast quality is approximately six megabits per second which is DVD-compatible, and most of the images you see on the web are one megabit per second, 500 kilobits per second, so we are talking 5-10% quality of a DVD projection or a digital broadcast.

When we are talking about film we are talking about deluxe materials. This is the best of the best, it is material we work with and feel deserves a big screen. Not all the time and not for all the materials, at least maybe not this year but it is something of very high quality. I think the quality discussion is something that is extremely important here and we are talking about a heritage which is of fantastic quality and therefore also marvellously difficult to preserve and argue to preserve.

We have some different strategies when it comes to digital; like the Cinémathèque Française, we have a cinémathèque and we are fully aware of the transition to digital and we embrace the day that we can do full digital presentations. I personally think that the digital cinema will rejuvenate film heritage, I think it will become very clear that many of the holdings we have are far superior to broadcast for instance. I think that quality at cinemas will increase many-fold. I think current analogue cinema has cut many corners that what we are seeing on screens today is not really the marvellous cinema we should be seeing, because prints are being struck so rapidly. It is a manufacturing business where costs are cut everywhere. I think D cinema will revitalize cinema projection. We want to be there, we want to put heritage on this new, fantastic carrier,; the digital cinema package or even something better because what they are working on is not necessarily the best technological solution.

In that sense you might say we are going to continue our current business model of running a cinémathèque with film historical screenings, with modern cultural screenings, and having a library and documentation collection, and also to upgrade our videothèque and become a knowledge centre for cinema history. We are just going to take the transition and accept that the new film stock turns out to be digital and so we will work with it. We also have a national filmography which I will show you. Filmstriben is quite similar to the non-commercial distribution catalogue that was presented earlier. We are also involved in the European Film Gateway. I don't know if it is a disagreement with our Welsh colleague but I think that our institutions do need to be independent from the national libraries in order to have the multi-faceted approach because even though I believe that when we talk cinema images, bigger is better, I don't think when we talk national heritage institutions that bigger is necessarily better. I do think that specific art forms do sometimes deserve specific insights and

people care for that specific art form and the specificity of the medium and the subject or it or it will get lost in the sea of culture.

We are also in close contact with the Danish Ministry of Culture who is exactly trying to gather all the national heritage collections and institutions in order to make a national cultural bank. I don't know that the current banking culture this is something we want to embellish on, or we might wind up going bankrupt because the holdings are not good enough. You might say we have both a national approach which is both a cinematographic approach and also a cross-cultural approach. Then we also follow a more international, Pan-European approach.

Filmstriben is a video-on-demand (VOD) service. It is non-commercial distribution. It is basically the continuation of what used to be the 16-millimetre distribution catalogue for schools and libraries. That then turned into VHS distribution and then it turned into DVD distribution. Then since the use was not great, the logistics of dealing with physical copies was too heavy compared to the relatively low use of the certain titles in the catalogue, a VOD service was set up. There are about 450 films now so it is not a huge catalogue compared with more than 2,000 titles that used to be there when it was in physical form. At the archives we suffer today when we have the high school teacher asking why a title is not available anymore. We have prints but it would cost 100 Euros to rent them, which people are not willing to do.

We are in a transitional period at the moment where there is limited access and we are not generating the broad access to everything that we would like to, but which we simply do not have the resources to deliver. This is a closed site so you pay a license fee and then if you have the right IP number you have free access and you can access the content as much or as little as you want. It is a great success for schools this year because it is free. A lot of schools signed up and I think most are getting the bandwidth requirements that will allow them to show these films properly in schools. Films are shown in three different qualities: 800 kilobits, 1,600 kilobits and 2 megabits. It is equivalent to pretty good VHS quality. I would say you would not really notice the difference to a DVD but it is still what I would call video quality. It is free this year and for next year we will see. Hopefully schools will get hooked and both students and teachers will demand it next year. We are very unsuccessful with the libraries. I am not personally involved with this service, but I can certainly see why libraries would not want this service because the licensing is simply too costly for them. Also because it is only on site that they can offer access and their license is something like ten Euro Cents per inhabitant in the municipality per year. If there is a lot of use then sure but in most cases they are looking at dwindling budgets and this is not something in which they see a growth potential. Except we have managed to have a deal for music loan in Denmark so you can sign up with your local library and borrow music from the local library from home. We are looking into whether this service would be something that could also be offered but rights holders are if not difficult to deal with individually, then as a group and you do want to have a collective agreement for something like this. It tends to be a tedious process, so things take time.

The Danish National Filmography is a documentation database for films that have had a release, so Danish-produced films and also foreign films that have been part of Danish film culture which we define as having had theatrical distribution in Denmark. So you will find foreign films from the year 2000 in here as well with the Danish release date, where it was released and the technical data. We have collections online. It will also be available in English, I thought it would be by the end of this year but now it sounds like it will be integrated with the overall website which means a delay. So around summer next year it should be available in English form with a more attractive user interface. You can search by title but we also have a media gallery, so we have an entry by material. Therefore, you can go in and say there are films with posters and you will get listings of titles with posters. If you want to check it out, just Google "erotic compilation Denmark". Basically, you have a listing under each of the material categories, then up here you will have the logo that there is a film available, we have an English synopsis and these are available in Flash format. There is no sound on this example so this is either a censorship reel or some projectionist who made his own clip collection in the projection booth for friends.

We are working on putting more material on here, right now it is in a sense a “freak show”. Not just because we put material on to lure in customers who do not want to see this anyway, but because we must be able to clear rights. Typically the material that goes on here first is the material that we know is public domain or “out of copyright”. As collections we have a thousand silent film programs because those are readily available, they have been transferred to digital form and there is no copyright issue connected with those.

As far as photographs are concerned, we will be going with one of the image bureaus in Denmark who will supply a solution for us which will promote our collection and there will also be a payment from them. So we will have relatively good quality material available for reference online for free and then professional customers can buy stills from this service. I think we cheated a little because we got funding, saying it would greatly increase the income of the stills archive and we only increased the figures slightly so we did get the ongoing funding, but we don't really think it will generate that much money, we'll see.

We are also part of the European Film Gateway and of course we are re-using the material that we have in the filmography, but the European Film Gateway is also a boost to increasing the amount of content that we have on the filmography. You may think it is cheating to use the same material for several projects but really the projects feed into each other and the synergy is there so we can re-use the material in several places. European Film Gateway is quite a demanding project for us; we are getting a lot of money but we also have to do a lot of work. There are lots of materials involved in the European Film Gateway and our collection is just a drop in the ocean but hopefully one of the better drops.

I think there are some digital issues; online access tends to devalue the content. There is a tendency among the general population that digital is cheaper and that things should be free. I am all for free but somebody has to pay the bill. I think it is fine that things are free if you vote for politicians that charge taxes so we can do the right thing with the tax money. But I do think there is a business plan that is not working in some ways. Right now we are compromising on quality because we are not allowing a quality which can be re-used to be available on the Internet. At the same time that is devaluing the content because these are truly great images and we are only showing a shadow of what is there.

I also think the “blockbuster mentality” tends to be amplified so that it is the guy who swallows ping-pong balls gets seen 30 million times whereas the important and great footage does not always get the attention it needs. Earlier Serge Bromberg showed one way of bringing things that are fantastic to the fore by using marketing and specified approaches. We have to ensure we index these things correctly so that they will surface when people make the correct search, I think that goes down to the bottom thing I will say which is that the quality and the rooting of the content and the documentation that follows the cultural heritage that we put on the web is very important to retain the value we have here. That is not necessarily something which is contradicted by going digital but it has to be done in digital as well as in analogue. I also think digital can show things that we were never able to bring out in the old media formats. We can bring out microscopic imagery that shows you what the film base looks like. Everything is possible here and I think it is time we start dreaming instead of just taking the money and asking how much can be transferred onto a lesser format and put on the web. I think we should find out how we enrich the material by creating new context, creating new usage, creating access to the elements in a way that we haven't thought of before.

Then I think that the fact that geography is lost; we have to use this as a strength of the Internet because people will look for local material. The localization is what gives value to the content. Heritage is important and valuable because it is exactly heritage. It is something which is rooted in the real world as an artefact. We should not be too scared of it losing that rooting. As institutions we should make sure people do not get bad copies, but that is a different issue.

One of the websites [Europeana] I gave you does not work, on the home page it says that due to fantastic search results the website is not available, but you can either go to DFI.dk or you can Google us, if you type "erotic compilation Denmark" we should be in the top three hits. This is the end and a new beginning I hope.

Suivi éditorial : Loraine Pereira – chargée de mission pour le patrimoine cinématographique / INP.