MIAP Metadata | Fall 2014 | Metadata Creation Assignment | Dylan Lorenz

The collection I'm using for my Metadata creation assignment is a group of moving image material I shot and edited in 2001 and 2002 of the Hell Gate Bridge and surrounding area in Astoria, Queens. This being work I created clearly has personal significance to me, but it also captures an area of a New York City neighborhood and as a document of the area surrounding the Hell Gate, I believe it has some regional historical and cultural significance. My original aim with film was to produce a lyrical documentation of the area near the Hell Gate bridge in Astoria Queens. I was interested in on the movement patters of the water in the tidal estuary of the Hell Gate estuary between the East River and Long Island Sound. The final edited version of the film entitled *Hell Gate* was screened at Socrates Sculpture park in 2003 as part of the *Float* exhibition. I found a catalog description of the film from the screening which still available online:

> "Part document and poem, Hell Gate is a filmic exploration of the Hell Gate
> channel, originally shot with the idea of three Super-8 rolls as a triptych: the
> water swirls; the garbage; and the major flows of water north to the Long Island
> Sound and south to the East River. Lorenz's film shows the Hell Gate as a place
> of reflection amidst the busy thoroughfare of boat traffic and recreation."

The original footage was shot on super-8, which was transferred to video, captured with Final Cut Pro and exported as Quicktime movie. The objects of the collection are of 4 color super-8 reels (spliced together onto one reel), one 720 x 480 QuickTime movie (.mov) file and a DVD screening copy. The .mov file is the final edited version of the transferred super-8 into a triptych emulating three camera rolls of super-8. The footage and the final edit are silent. The video was screened on VHS in 2003, but that copy no longer exists, so I am cataloging a DVD screening copy of the work. I am not cataloging the source QuickTime of the transferred film partially to limit the amount of objects for this exercise, but also because they contain much of the same technical metadata as the final edited .mov file.

I am interested in the description and technical metadata of all the objects in the collection and articulating some structural metadata to express relationships between the

objects. The description metadata will be useful in describing the creation dates of the objects and location the footage was photographed as well as the description of the final film. This metadata would probably be most useful for useful to individuals interested in the content. The technical metadata can express format information of the original, the screening copy but also granular information of the exported .mov file such as aspect ratio, and file size, audio and video codecs of the digital material. This will be helpful in understanding information the video information of the transferred super-8 and and what the 'master' of the edited work video is. Relationships expressed through structural metadata will aid in understanding how to instances in the collection differ and can aid in future preservation information. At this time, no formal preservation actions have been taken with this material, but I hope this metadata could assist in creating preserving this collection.

Based on the above qualities I would like to express, my metadata wish list for the physical and digital objects are: Title of the work; Description information from the Float exhibition; Subject of the Hell Gate Bridge and/or Hell Gate estuary; Genre of nonfiction, experimental or avant garde film; Format(s); Creation date from the file properties or film leader; Duration to indicate difference of source and edited/screening version; Geographic location of the material shot; Frame size or frame dimensions; File size of QuickTime; Codec of the QuickTime (for audio and video)[1]; Data rate of the audio and video of QuickTime; Resolution or bit depth of QuickTime; Audio codec of the QuickTime and; Bit rate of QuickTime.

I chose to use PBCore as for the structure standard because of the amount of granular moving image technical metadata that can be mapped and because of its use of instantiations to express relationships between objects. For the value standard I chose a combination of Library of Congress (LOC) Subject Headings, LOC Genre/Form standard, LOC Name Authority standard and MediaInfo for the digital technical metadata standard. I used Open Metadata

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[1] Even though the footage and film is silent, the audio compression is important to record for future use of the digital files.

Registry URIs for the non-digital format standard and a geographic location standard. The Open Metadata Registry contained more granular values than the LOC values for the non-digital formats and, along with GeoNames, allowed me to be very extremely specific about the geographic location where I filmed in 2002.

Metadata Wish List Mapped To Structure and Value Standard		
Wish List	PBCore	Value Source
Title	pbcoreTitle	
Description	pbcoreDescription	
Subject	pbcoreSubject	LOC Subject Headings
Genre	pbcoreGenre	LOC Genre/Form Terms
Format	pbcoreInstantiation	LOC Name Authority Open Metadata Registry
Creation Date	pbcoreAssetDate	(see footnote)[2]
Duration	formatDuration instantiationDuration	
Geographic location	pbcoreCoverage	GeoNames Open Metadata Registry
Frame size	essenceTrackFrameSize	MediaInfo
File size	formatFileSize	MediaInfo
Codec	essenceTrackEncoding	MediaInfo
Data rate	formatDataRate	MediaInfo
resolution	essenceTrackBitDepth	MediaInfo
encoded date	pbcoreAnnotation	MediaInfo
audio format	essenceTrackEncoding	MediaInfo
audio bit rate	formatDataRate	MediaInfo

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[2] I chose not to use an ISO standard because only the year mattered to me for non-digital objects and I wanted technical metadata to be left as MediaInfo value

When creating the XML records, I first used Text Wrangler in conjunction with the http://3windmills.com validator. I used PBCore sample records from PBCore Elements to begin to create the schema. After frustrations with generating a well-formed XML, I eventually downloaded Oxygen with a trial academic license. Creating XML with Oxygen combined with referencing the PBCore Elements pages allowed me to create well-formed records much more easily. I decided to create records based on the three Root Elements of PBCore to create a Description Document record, an Instantiation record and then a Collection record.

For the technical metadata, I wanted to use the MediaInfo technical metadata extraction tool. Since seeing it in class, I was very interested in creating a record with the granularity available from the MediaInfo tool. While looking for sample PBCore XMLs, I can across the AVPreseve PBCore Instantianizer Toolset created by Dave Rice, which utilizes the MediaInfo technical metadata extraction tool to create an automatic PBCore instantiation XML document. When I used the tool with my QuickTime file, it produced a well-formed XML file. I didn't use that record as one of my examples for the assignment, but rather included it in my Collection sample record. Because I didn't want all of the data automatically generated, I deleted some lines of generated information that were more granular than I wanted. This edited record still validated as well formed. In the record, I also added more human readable versions of the number strings produced (i.e. when the tool gives machine readable bit information "30185515 bits/second", I added "(30 mbps)" to the description. This was available from the MediaInfo tool, but Dave Rice didn't map those fields in his automatic generator.

My hand coded Document record of the super-8 object and the Instantiation record of the DVD object validated well-formed XML files. However, I was not able to resolve a fully well formed Collection record including the automatically generated instantiation record. I needed to convert the Instantiation record into an instantiation within the larger Collection. Errors occurred within the instantiations where the automatically generated technical metadata live. But the

Collection record does include the super-8, the DVD and the QuickTime objects as

instantiations.

Description Document Record

<pbcoreDescriptionDocument xmlns="http://www.pbcore.org/PBCore/PBCoreNamespace.html"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.pbcore.org/PBCore/PBCoreNamespace.html
http://pbcore.org/xsd/pbcore-2.0.xsd">
    <pbcoreAssetDate dateType="DateCreated">2001</pbcoreAssetDate>
    <pbcoreIdentifier source="ObjectIdentifier"> HG001</pbcoreIdentifier>
    <pbcoreTitle titleType="Main Title">Hell Gate</pbcoreTitle>
    <pbcoreSubject subjectType="place" source="LOC Genre/Form Terms"
       ref="http://id.loc.gov/authorities/subjects/sh91004807.html">Hell Gate Bridge (New York,
N.Y.)</pbcoreSubject>
    <pbcoreDescription descriptionType="Summary"
descriptionTypeSource="http://socratessculpturepark.org/artist/dylan-lorenz">Part document and
poem, Hell Gate is a filmic exploration of the Hell Gate channel, originally shot with the idea of
three Super-8 rolls as a triptych: the water swirls; the garbage; and the major flows of water
north to the Long Island Sound and south to the East River. Lorenz's film shows the Hell Gate as
a place of reflection amidst the busy thoroughfare of boat traffic and
recreation.</pbcoreDescription>
    <pbcoreGenre source="LOC Genre/Form Terms"
ref="http://id.loc.gov/authorities/genreForms/gf2011026423.html">Nonfiction
films</pbcoreGenre>
    <pbcoreGenre source="LOC Genre/Form Terms"
ref="http://id.loc.gov/authorities/genreForms/gf2011026423.html">Experimental
films</pbcoreGenre>
   <pbcoreCoverage>
      <coverage source="GeoNames"
         ref= "http://www.geonames.org/maps/google_40.778_-73.923.html">Astoria, Queens,
NY</coverage>
        <coverageType>Spatial</coverageType>
     </pbcoreCoverage>
   <pbcoreCoverage>
        <coverage source="latitude, longitude">40.783694,-73.918361
ref="http://metadataregistry.org/concept/show/id/2522.html"></coverage>
        <coverageType>Spatial</coverageType>
     </pbcoreCoverage>
   <pbcoreCreator>

```
    <creator>Lorenz, Dylan</creator>
    <creatorRole source="PBCore contributorRole"
ref="http://metadataregistry.org/concept/show/id/1415.html">Director</creatorRole>
  </pbcoreCreator>
  <pbcoreInstantiation>
    <instantiationIdentifier source="Open Metadata Registry"
annotation="Object">HG001</instantiationIdentifier>
    <instantiationDate dateType="DateCreated">2001</instantiationDate>
    <instantiationPhysical ref="http://metadataregistry.org/concept/show/id/2076.html">Film:
Super-8</instantiationPhysical>
    <instantiationStandard>Kodachrome</instantiationStandard>
    <instantiationLocation>Director's Collection</instantiationLocation>
    <instantiationMediaType>Moving Image</instantiationMediaType>
    <instantiationGenerations>Analog Master</instantiationGenerations>
    <instantiationDuration>00:00:12:00</instantiationDuration>
    <instantiationColors>Kodachrome</instantiationColors>
  </pbcoreInstantiation>
</pbcoreDescriptionDocument>
```

Instantiation Record

```
<pbcoreInstantiationDocument
xmlns="http://www.pbcore.org/PBCore/PBCoreNamespace.html"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://www.pbcore.org/PBCore/PBCoreNamespace.html
http://pbcore.org/xsd/pbcore-2.0.xsd">
<instantiationIdentifier source="Open Metadata Registry"
annotation="Object">HG003</instantiationIdentifier>
  <instantiationDate dateType="DateCreated">2014</instantiationDate>
  <instantiationPhysical
ref="http://metadataregistry.org/concept/show/id/2041.html">DVD+R</instantiationPhysical>
  <instantiationStandard>DVD Video</instantiationStandard>
  <instantiationLocation>Director's Collection</instantiationLocation>
  <instantiationGenerations>Access Copy</instantiationGenerations>
  <instantiationDuration>00:09:17:00</instantiationDuration>
  <instantiationEssenceTrack>
    <essenceTrackStandard>NTSC</essenceTrackStandard>
    <essenceTrackEncoding>MPEG-2</essenceTrackEncoding>
    <essenceTrackFrameRate>29.97 fps</essenceTrackFrameRate>
    <essenceTrackFrameSize>720x480</essenceTrackFrameSize>
```

```
      <essenceTrackAspectRatio>4:3</essenceTrackAspectRatio>
    </instantiationEssenceTrack>
    <instantiationEssenceTrack>
      <essenceTrackStandard>Dolby Digital (AC-3)</essenceTrackStandard>
      <essenceTrackDuration>00:09:17.290</essenceTrackDuration>
    </instantiationEssenceTrack>
</pbcoreInstantiationDocument>
```

Collection Record

```
<pbcoreCollection xmlns="http://www.pbcore.org/PBCore/PBCoreNamespace.html"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="http://www.pbcore.org/PBCore/PBCoreNamespace.html
http://pbcore.org/xsd/pbcore-2.0.xsd">
    <pbcoreDescriptionDocument>
      <pbcoreAssetDate dateType="DateCreated">2014</pbcoreAssetDate>
      <pbcoreIdentifier source="ObjectIdentifier"> HG100</pbcoreIdentifier>
      <pbcoreTitle titleType="Main Title">Hell Gate Collection</pbcoreTitle>
      <pbcoreSubject subjectType="place" source="LOC Genre/Form Terms"
        ref="http://id.loc.gov/authorities/subjects/sh91004807.html">Hell Gate Bridge (New
York, N.Y.)</pbcoreSubject>
      <pbcoreDescription descriptionType="Summary">A collection of moving images assets
used for the creation and exhibition of the film Hell Gate by Dylan Lorenz</pbcoreDescription>
      <pbcoreGenre source="LOC Genre/Form Terms"
ref="http://id.loc.gov/authorities/genreForms/gf2011026423.html">Nonfiction
films</pbcoreGenre>
      <pbcoreGenre source="LOC Genre/Form Terms"
ref="http://id.loc.gov/authorities/genreForms/gf2011026423.html">Experimental
films</pbcoreGenre>
      <pbcoreCoverage>
        <coverage source="GeoNames"
          ref= "http://www.geonames.org/maps/google_40.778_-73.923.html">Astoria, Queens,
NY</coverage>
        <coverageType>Spatial</coverageType>
      </pbcoreCoverage>
      <pbcoreCoverage>
        <coverage source="latitude, longitude">40.783694,-73.918361
ref="http://metadataregistry.org/concept/show/id/2522.html"></coverage>
        <coverageType>Spatial</coverageType>
      </pbcoreCoverage>
```

```xml
    <pbcoreCreator>
        <creator>Lorenz, Dylan</creator>
        <creatorRole source="PBCore contributorRole"
ref="http://metadataregistry.org/concept/show/id/1415.html">Director</creatorRole>
    </pbcoreCreator>
    <pbcoreInstantiation>
        <instantiationIdentifier source="Open Metadata Registry"
annotation="Object">HG001</instantiationIdentifier>
        <instantiationDate dateType="DateCreated">2001</instantiationDate>
        <instantiationPhysical
ref="http://metadataregistry.org/concept/show/id/2076.html">Film: Super-
8</instantiationPhysical>
        <instantiationStandard>Kodachrome</instantiationStandard>
        <instantiationLocation>Director's Collection</instantiationLocation>
        <instantiationMediaType>Moving Image</instantiationMediaType>
        <instantiationGenerations>Analog Master</instantiationGenerations>
        <instantiationDuration>00:00:12:00</instantiationDuration>
        <instantiationColors>Kodachrome</instantiationColors>
    </pbcoreInstantiation>
    <pbcoreInstantiation>
        <instantiationIdentifier source="Open Metadata Registry"
annotation="Object">HG003</instantiationIdentifier>
        <instantiationDate dateType="DateCreated">2014</instantiationDate>
        <instantiationPhysical
ref="http://metadataregistry.org/concept/show/id/2041.html">DVD+R</instantiationPhysical>
        <instantiationStandard>DVD Video</instantiationStandard>
        <instantiationLocation>Director's Collection</instantiationLocation>
        <instantiationGenerations>Access Copy</instantiationGenerations>
        <instantiationDuration>00:00:9:17</instantiationDuration>
    </pbcoreInstantiation>
    <pbcoreInstantiation>
        <instantiationIdentifier source="Open Metadata Registry"
annotation="Object">HG002</instantiationIdentifier>
        <instantiationDate>2006-04-01</instantiationDate>
        <instantiationLocation>G-Raid Hard Drive (3TB)</instantiationLocation>
        <instantiationMediaType>Moving Image</instantiationMediaType>
        <instantiationFileSize>2102760745 bytes (2.1 GB)(</instantiationFileSize>
        <instantiationDuration>00:09:17.290</instantiationDuration>
        <instantiationDataRate>30185515 bits/second (30 mbps)</instantiationDataRate>
        <instantiationTracks>1 video track, 1 audio track</instantiationTracks>
```

```
    <instantiationChannelConfiguration>DV with PCM with
TimeCode</instantiationChannelConfiguration>
        <instantiationEssenceTrack>
            <essenceTrackType>Video</essenceTrackType>
            <essenceTrackIdentifier>1</essenceTrackIdentifier>
            <essenceTrackIdentifierSource>ID (Mediainfo)</essenceTrackIdentifierSource>
            <essenceTrackStandard>NTSC</essenceTrackStandard>
            <essenceTrackEncoding>DV (dvc )</essenceTrackEncoding>
            <essenceTrackDataRate>24417183 bits/second</essenceTrackDataRate>
            <essenceTimeStart>00:00:00.000</essenceTimeStart>
            <essenceTrackDuration>00:09:17.290</essenceTrackDuration>
            <essenceTrackBitDepth>8 bit</essenceTrackBitDepth>
            <essenceTrackFrameSize>720x480</essenceTrackFrameSize>
            <essenceTrackAspectRatio>4:3</essenceTrackAspectRatio>
            <essenceTrackFrameRate>29.970 fps</essenceTrackFrameRate>
            <essenceTrackLanguage>eng</essenceTrackLanguage>
            <essenceTrackAnnotation>BitsPerPixel: 2.357
                BitRate_Mode: CBR
                PixelAspectRatio: 0.909
                PixelAspectRatio_Original: 0.889
                DisplayAspectRatio: 1.333
                Rotation: 0.000 / 0.000
                FrameRate_Mode: CFR
                FrameCount: 16702
                ColorSpace: YUV
                ChromaSubsampling: 4:1:1
                ScanType: Interlaced
                Encoded_Date: 2006-04-01T21:28:06Z
            </essenceTrackAnnotation>
        </instantiationEssenceTrack>
        <instantiationEssenceTrack>
            <essenceTrackType>Audio</essenceTrackType>
            <essenceTrackIdentifier>2</essenceTrackIdentifier>
            <essenceTrackIdentifierSource>ID (Mediainfo)</essenceTrackIdentifierSource>
            <essenceTrackEncoding>PCM Big-endian Signed (twos)</essenceTrackEncoding>
            <essenceTrackDataRate>1411200 bits/second</essenceTrackDataRate>
            <essenceTrackDuration>00:09:17.290</essenceTrackDuration>
            <essenceTrackBitDepth>16 bit</essenceTrackBitDepth>
            <essenceTrackSamplingRate>44.1 kHz</essenceTrackSamplingRate>
            <essenceTrackLanguage>eng</essenceTrackLanguage>
```

```xml
          <essenceTrackAnnotation>Channels: 2
            BitRate_Mode: CBR
            SamplingCount: 24576489
            Encoded_Date: 2006-04-01T21:28:06Z
          </essenceTrackAnnotation>
        </instantiationEssenceTrack>
        <instantiationEssenceTrack>
          <essenceTrackType>timecode</essenceTrackType>
          <essenceTrackIdentifier>3</essenceTrackIdentifier>
          <essenceTrackIdentifierSource>ID (Mediainfo)</essenceTrackIdentifierSource>
          <essenceTrackEncoding>TimeCode</essenceTrackEncoding>
          <essenceTrackLanguage>eng</essenceTrackLanguage>
          <essenceTrackAnnotation>Encoded_Date: 2006-04-01T21:32:54Z
            Tagged_Date: 2006-04-01T21:32:54Z
          </essenceTrackAnnotation>
        </instantiationEssenceTrack>
        <pbcoreAnnotation>
          <annotation>Container: MPEG-4 QuickTime (qt  )</annotation>
        </pbcoreAnnotation>
        <pbcoreAnnotation>
          <annotation>Encoded_Date: 2006-04-01T21:28:06Z</annotation>
        </pbcoreAnnotation>
        <pbcoreAnnotation>
          <annotation>Tagged_Date: 2006-04-01T21:32:54Z</annotation>
        </pbcoreAnnotation>
        <pbcoreAnnotation>
          <annotation>File_Modified_Date: 2006-04-01T21:32:54Z</annotation>
        </pbcoreAnnotation>
        <pbcoreAnnotation>
          <annotation>File_Modified_Date_Local: 2006-04-01T16:32:54</annotation>
        </pbcoreAnnotation>
        <pbcoreAnnotation>
          <annotation>Encoded_Library: Apple QuickTime</annotation>
        </pbcoreAnnotation>
      </pbcoreInstantiation>
    </pbcoreDescriptionDocument>
</pbcoreCollection>
```