



DIGITAL PRODUCTION  
**CHALLENGE II**

## CASE STUDY



ATHENS

Tuesday 28 November to Saturday 1 December 2018

V1 Sunday 13<sup>th</sup> 2018

FOCAL

resource



## CASE STUDY

“HALVDAN ALMOST A VIKING”

Presentation made by:

Jessica Ask, Karolina Heimburg & Peter Bengtsson

Budget: 36 900 000 SEK = 3, 57 M€

Production: Anagram Sverige AB

Country of origin: Sweden

Producer: Jessica Ask

Director: Gustaf Åkerblom



Co-Producers: **Film i Väst, TV4, NDR (NFTF & SFI)**  
Production Manager: **Line Producer Karolina Heimborg**  
Cinematographer: **Peter Mokrosinski**  
Production Designer : **Pernilla Olsson**  
Costume designer: **Kicki Ilander**  
Sound engineer: **Henric Andersson**  
Editor: **Fredrik Morheden**



Estimated length of the film: 93 min

Colorist: Per Sjökvist

VFX Supervisor: Torbjörn Olsson

Post-production Manager: Peter Bengtsson

Shooting locations/countries: Sweden, Trollhättan, Hunne & Halleberg



Mottos from the producer:

Halvdan is an adventure that should feel authentic. It should be a heart-warming and funny family adventure about forbidden friendship and bridging differences.

A movie for kids but with the same high ambition regarding production value as if it had been made for adults

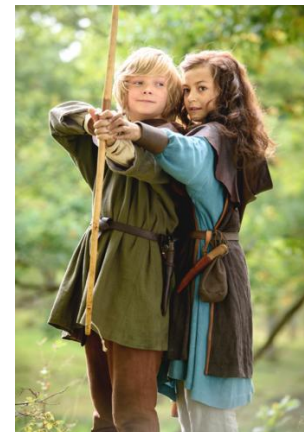
**NO STUDIO – EVERYTHING SHOT ON LOCATION - AUTHENTIC**



Mottos from the director:

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Halvdan should be fun, beautiful and authentic. A movie that I would have wanted to see as a kid. Differences can be a good thing and you can find a friend where you least thought you would...



# PRE-PRODUCTION

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Duration: 16 weeks



# PRE-PRODUCTION

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## CHANGE ON THE WORKFLOW

### Topics:

- Greenscreen vs real shooting
- Postponing the shooting

## CHANGE ON THE WORKFLOW

### Topics:

- 2 villages made with one single one
- Big prep on scouting
- Use of SFX and production design skills
- Decisions: 2 cameras

## CHANGE ON THE WORKFLOW

### Topics:

- Changing the script to fit with the reality



# PRE-PRODUCTION

## Topics:

- Never show the villages from above
- Different shooting angles and entrances to the villages



## General topic

- Being able to change our mind
- Flexibility & communication
- Big movie in a small place with low budget

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# SHOOTING

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Duration: 7 weeks  
8h/days

## Topic:

- Filmmaking with kids and tight schedule
- 2 x camera (1 steadicam)

# SHOOTING

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CAMERA DEPT: One main unit, 2 cameras

- Camera crew number of person: Total 8 persons
- Cinematographer
- Steadycamoperator
- Camera operator – USE OF STEADYCAM WITH KIDS
- Assitant Cameraman 1
- Assitant Cameraman 2
- 2:nd ass cam
- Video assist
- DIT/Data manager/wrangler

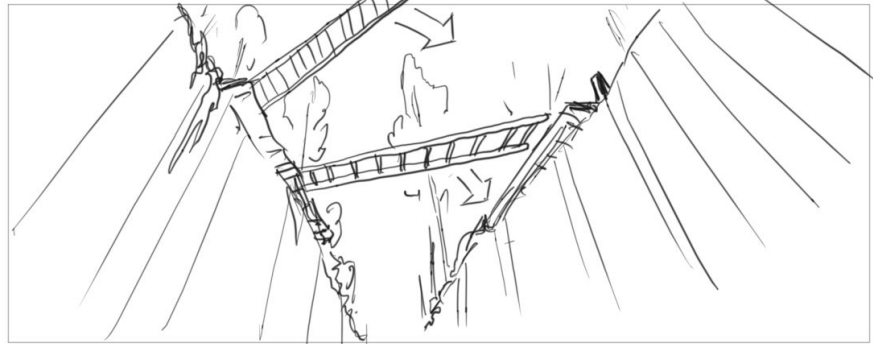
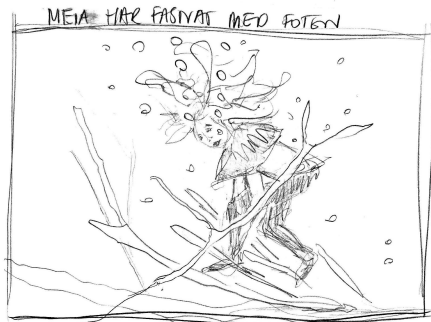


## Topics:

- Logistics issues
- Transportations: decisions to lower the distance between set and hotels
- Key role of location manager
- Making the kids have fun

## Topic:

- Use of storyboard – the end of the movie



## Events:

- The cliff



## Events:

- Technocrane incident



## Events:

- The old bridge



## Events:

- Boat/water scenes – shot next to the village



## Topic:

- A producer on set – fast decisions



Topic:

- Experienced crew





# SHOOTING

## LIGHTING CREW:

- 1 x Head Gaffer
- X x gaffer
- Extras

## GRIP CREW:

- 1 x Head Grip
- X x Dolly grip
- X x grips

INTERESTING TO  
TALK ABOUT; MAY  
BE??

modulate the number  
of persons depending  
on the script

# CAMERA & LENSES

## ALEXA MINI x 2 - SPHERICAL



2K Pro-Res 12-bit 4444 XQ  
Log C  
Internal recording on Cfast 2 cards  
Aspect ratio: 1: 2,39 Cropped  
24fps  
High Speed Zeiss series T 1,3

Light cameras  
1 x Steadycam

Very Large files  
Why not RAW?

Focus puller skills  
shooting full  
aperture

## COLOR MANAGEMENT PRE-GRADING - DATA MANAGEMENT

Pre-grading on set  
Resolve  
4 Luts prepared  
R&D by lab/colorist

INTERESTING TO  
TALK ABOUT;  
MAY BE??

# COMMUNICATION BTW SHOOTING & POST

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## QUALITY CHECK -

FOOTAGE/DATA VIEWING: Director, DOP, Producer, Postproducer,  
Editor, Hair & Make up Designer, Production Designer, Costume  
Designer, LP  
USE OF IOS and WEB BASED (Encodi)  
SILVERSTACK

FOOTAGE/DATA  
VIEWING:  
INTERESTING TO  
TALK ABOUT;  
MAY BE??



# POST-PRODUCTION

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Editing: Gothenburg

Post-production: Gothenburg & Stockholm

VFX: Gothenburg & Stockholm

# POST-PRODUCTION

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## DURATIONS

- Editing: 19 weeks
- Grading: 3 weeks
- VFX: 13 weeks
- Sound: 29 weeks

## DURATIONS

- Editing: 2
- Grading: 1
- VFX: 3
- Sound: 1

# POST-PRODUCTION


## DAILIES

Creation of pregraded proxy with Lut's & synch: H 264

PNG images, H 264 files, DVD sent to:

- The production YES
- The director/cinematographer/set designer
- The VFX

INTERESTING TO  
TALK ABOUT;  
MAY BE??



# POST-PRODUCTION

## SPECIFICITY

- Use of ACES architecture
- Which resolution for archiving? : 2048x838 **Open EXR**

INTERESTING TO  
TALK ABOUT; WHY?

INTERESTING TO  
MENTION AS GOOD  
CHOICE FOR  
LIBRARY

## GRADING

- Plugins during grading
- Regrain: YES
- Denoise: YES

TOPIC  
TEXTURE?

# SHOOT

"HALVDAN ALMOST A VIKING"

# POST-PRODUCTION

# SCREENING

## FILM

Super 8



Super 16



35 mm



65 mm



Imax



## SENSORS

DSLR PANASONIC LUMIX GH4



Standard Definition



Digital Cinema

2 x Alexa Mini



ProRes

## CHEMICAL



## DIGITAL

Telecine

SD Standard Definition



HD High Definition

2K Scan

2K DI

4K Scan

4K DI

6K Scan

## 35 mm - 70 mm

Film Projection



## SD - HD - 2K - 4K

Digital Projection



## SD - HD - UHD - 8K

Broadcast TV  
DVD - Blu-Ray



## INTERNET PROTOCOL

Internet - VOD  
Mobile



## OTHER SCREENINGS

360° - Hologram - 3D  
AR/VR (Virtual Reality)





Following slides are extracted from  
DPCII Lisbon 2016

Decisions to take:

1 Where to place this part

2 : My proposal is to simplify these following slides in according with the topics we can choose about for example workflow : 3,2K instead of 2K for future library

During

DPCII – LISBON 2016

the film was one of the participants projects

# DIGITAL PRODUCTION CHALLENGE II – LISBON 2016

## « THE ADVENTURES OF HALDVAN VIKING » »

Sweden

Jessika ASK, Producer - Karolina HEIMBURG, Line producer

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**FILM:** « THE ADVENTURES OF HALDVAN VIKING » **Country** Sweden **Production:** ANAGRAM Film & TV  
**Director:** Gustaf ÅKERBLÖM - **Producer:** Jessica ASK - Line producer, Karolina HEIMBURG,  
**Cinematographer:** Jonas ALARIK

**Destination:** Theater – TV - VOD

**Production/Distribution Strategy:** Still tbd but approximate 66% market funding 34% public funding  
Open on Christmas 2017 1:st day of principal shoot: 26 April 2017 - Distributor in place together with Monday, a Swedish Public Relations and Communications agency - Involve social networks on the internet - National, International

**Deliveries:**

**Budget:** Limited budget 3,4 M€ Co-producers: Film i Väst

**Co-producing countries:** TBD: Germany - Scotland and/or Iceland could also be of interest.

**Subject - Length - Language:** Family movie (live action)  
90 mn - 2 kids 10-12 years old, and then well-known Swedish actors.

**Prep - Shooting time Location, team:** May-June 2017 – Shoot ending: 16 June (main shoot) 8 weeks total (7 with first unit, 1 with Second Unit)  
Total shooting days: 35 (mainshoot) + 2 (modell) + 3 (background) Totalt weeks in post: Edit 16 w + Sound 16 w  
Sweden (Västra Götaland) - Main Unit - Scotland and/or Iceland - Second Unit – Team: 35 persons

**Camera/Sound: Cinematographer:** Aspect ratio: 1:1,85 – Cameras: TBD – Check on set by DIT - To use a grading system on set

**D.I. - VFX - Post:** 2K D.I. - VFX - Use of the Cloud - Post-production manager TBD depends on the outcome of the Post Production plan and financing in total. For post, looking at one alt. with a big Swedish post-house and another alt. with some smaller companies that comes together to provide the same high level of service (all inclusive so to say) as the established bigger post-house.- Post Production Provider in charge of long term archiving

**Reference of film:** Swedish Astrid Lindgren classic "Ronja Rövardotter in terms of the trustworthy look. We want real people! No "Lord of The Rings fantasy thing »

**Tests – Check - Archive:** Actors, Make-up, Digital cameras, Light, Special effects, Lab, Workflow, Visual effects

#### REMARKS

**Post prod:**

**Participant's expectations with regard to DPC:** To learn more about the hole digital process in order to take better decisions and get some help and guidance regarding all important choices we have in front of us.

**Questions:** How much we should build IRL and how much we should do as set extensions/changing of background etc.  
Do we need to work with postproduction supervisor? - VFX – Greenscreen - DCP

## Participant's proposal

### SCREENING

35 mm - 70 mm

Film Projection



SD - HD - 2K - 4K

Digital Projection



SD - HD - UHD - 8K

Broadcast TV  
DVD - Blu-Ray



INTERNET PROTOCOL

Internet - VOD  
Mobile



OTHER SCREENINGS

360° - Hologram - 3D  
AR/VR (Virtual Reality)



# SHOOT

THE ADVENTURES OF HALDVAN VIKING


# POST-PRODUCTION

Participant's proposal

# SCREENING

## FILM

Super 8



Super 16



35 mm



3 P  
2 P

65 mm



Imax



## SENSORS

DSLR PANASONIC LUMIX GH4



Standard Definition




TBD



CANON C 300,  
SONY PMW-F5 / F3,  
SONY PXW-FS7,  
SONY PMW-EX3 / EX1

Digital Cinema

## CHEMICAL

## DIGITAL

Telecine

SD Standard Definition

HD High Definition

2K Scan

2K DI


4K Scan

4K DI

6K Scan


## 35 mm - 70 mm

Film Projection



SD - HD - 2K - 4K

Digital Projection





SD - HD - UHD - 8K

Broadcast TV  
DVD - Blu-Ray




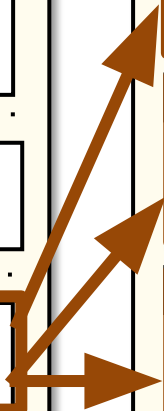

INTERNET PROTOCOL

Internet - VOD  
Mobile

OTHER SCREENINGS

360° - Hologram - 3D  
AR/VR (Virtual Reality)

Recommendations on production choices/strategies

Technical Recommendations

Camera and recording formats choices

### Future of the film distribution - 4K release

Camera and post choices could be finetuned to prepare 4K

**3,2K D.I is a good option with a 2K DCP**

ARRI ALEXA is requested/well known by the cinematographer.

So Alexa Mini can be a good option to be flexible for outdoors (mountain, remote place) shooting.

If RAW recording is too expensive:

- Proposal to test with post/VFX ProRes 4444 XQ (which is a very good option to key)

If 4K future release becomes an important option, a 3,2KProRes/ARRIRAW 3,4K recording and a 3,2K/3,4K D.I. and DSM could anticipate this request. Alexa XT/SXT and Alexa Mini proposed these options

See following pages

## SCREENING

### 35 mm - 70 mm

Film Projection



### SD - HD - 2K - 4K

Digital Projection



### SD - HD - UHD - 8K

Broadcast TV  
DVD - Blu-Ray



### INTERNET PROTOCOL

Internet - VOD  
Mobile



### OTHER SCREENINGS

360° - Hologram - 3D  
AR/VR (Virtual Reality)



# Future of the film distribution - 4K release

## Option ProRes 3,2K 4:4:4:4

No Heavy VFX option for future 4K

Camera: ALEXA XT  
Codec: ProRes 4444  
Resolution: 16:9 3.2K 3200 x 1782  
Project Rate: 24p  
Sensor Speed: 24.000  
Media: XR Capture Drive (512GB)  
Audio:

RESULTS	
Record Duration (hh:mm:ss)	00:38:51
GB/h	369.5
MBit/s	821
Frame Rates	0.75 - 30 fps

▼ FORMAT PREVIEW

Sensor Preview:

Used Area of Sensor	3168 x 1782 px
Clip Resolution	3200 x 1782 px
Metadata Crop	3164 x 1778 px
Required Image Circle	29.99 mm
Image Area Size	26.14 x 14.7 mm
Format Factor (to S35 16by9)	0.909

Clip Preview:

## VFX options for future 4K

### Option ProRes 3,2K 4:4:4:4 XQ

Camera: ALEXA XT  
Codec: ProRes 4444 XQ  
Resolution: 16:9 3.2K 3200 x 1782  
Project Rate: 24p  
Sensor Speed: 24.000  
Media: XR Capture Drive (512GB)  
Audio:

RESULTS	
Record Duration (hh:mm:ss)	00:25:53
GB/h	554.2
MBit/s	1232
Frame Rates	0.75 - 30 fps

▼ FORMAT PREVIEW

Sensor Preview:

**Non Raw VFX option**

Used Area of Sensor	3168 x 1782 px
Clip Resolution	3200 x 1782 px
Metadata Crop	3164 x 1778 px
Required Image Circle	29.99 mm
Image Area Size	26.14 x 14.7 mm
Format Factor (to S35 16by9)	0.909

### Option RAW 3,4K

Camera: ALEXA XT  
Codec: ARRIRAW  
Resolution: Open Gate 3.4K 3414 x 2198  
Project Rate: 24p  
Sensor Speed: 24.000  
Media: XR Capture Drive (512GB)  
Audio:

RESULTS	
Record Duration (hh:mm:ss)	00:29:21
GB/h	977.5
MBit/s	2172
Frame Rates	0.75 - 75 fps

▼ FORMAT PREVIEW

Sensor Preview:

**!!!Limited choice of lenses to cover this VFX option**

Used Area of Sensor	3424 x 2202 px
Clip Resolution	3424 x 2202 px
Metadata Crop	3414 x 2198 px
Required Image Circle	33.59 mm
Image Area Size	28.25 x 18.17 mm
Format Factor (to S35 16by9)	n/a

Clip Preview:

These capture screens came from the ARRI link

[https://www.arri.com/de/camera/alexa\\_mini/tools/arri\\_formats\\_datarates\\_calculator/](https://www.arri.com/de/camera/alexa_mini/tools/arri_formats_datarates_calculator/)

# SHOOT

THE ADVENTURES OF  
HALDVAN VIKING

# POST-PRODUCTION

DPC 2016 experts  
proposals

# SCREENING

## FILM

Super 8



Super 16



35 mm



4 P  
3 P  
2 P

65 mm



Imax



## SENSORS

DSLR PANASONIC  
LUMIX GH4



Standard  
Definition



Digital Cinema

Alexa Mini



Alexa X1



1... 2... 3

## CHEMICAL



## DIGITAL

Telecine

SD Standard  
Definition



HD High  
Definition

2K Scan

3.2K DI with a  
2K master for  
the moment

4K Scan

4K DI

6K Scan

## 0 mm

Film Projection



SD - HD - 2K - 4K

Digital Projection



SD - HD - UHD - 8K

Broadcast TV  
DVD - Blu-Ray



## INTERNET PROTOCOL

Internet - VOD  
Mobile



## OTHER SCREENINGS

360° - Hologram - 3D  
AR/VR (Virtual Reality)





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## WORKFLOW CHOICE

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Topic:

- Why choosing Open EXR for library but choosing 2K recording instead of 3,2K?

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# CONCLUSION

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The holistic approach