

EX MACHINA





1991... *A "ride" lasting more than three minutes, three films in European High Definition, image-packed screens... 91 all-digital minutes with the most spectacular effects, most sophisticated techniques, largest formats, most refined resolutions, zaniest animations... And not forgetting the first European High Definition/35mm transfer unit...*

1992... *A 5-minute IMAX film for the French Pavilion in Seville and a 70mm in 3D for the Universal Exhibition of Taejun (Korea, 1993)...*

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FEBRUARY



APRIL



JUNE

"LOOKING TO THE FUTURE"

11th February, 1991: THOMSON launched the first consumer market 16/9 High Definition television set. The reception was illustrated by a 4-minutes film produced by ExMachina entitled : "Looking to the future". This film is the very first example of the integration of Computer Graphics and real High Definition images. Directed by Pascal Roulin, it traces the history of television and presents the new transmission standards of tomorrow.

" CHARTRE 92 "

7th April, 1991 : First presentation of our latest arrival in HDTV and 3D. This is a 2-minute film commissioned by the Conseil Général of the Hauts-de-Seine Department. It shows what the Department has in store for it over the coming 25 years. No leading actor, but rather a host of extras...Very busy little bees who work, play golf, go to university ... This film is the fifth example of ExMachina's know-how in the field of High Definition. A one-minute extract was later shown on the television and in the theaters.

"LES YEUX DU CHAT"

22nd June, 1991: Received the Best Corporate Film award at the Festival de Biarritz 91 with "Les Yeux du Chat". Directed by André Cortines and produced by PROCITEL for the Compagnie Générale des Eaux, the film mixes real images with Computer Graphics (designed by Pascal Roulin) to represent those places where only a cat can go.



OCTOBER



NOVEMBER



DECEMBER

"FRANCE TELECOM"

7th October, 1991 : At the request of France Telecom and acting through the VT COM production company, Pascal Roulin directs "France Telecom brings the World closer". Six-minutes long, this film integrates Computer Graphics, HDTV and 35mm shots using tools which we have specially adapted to High Definition post-production. The film had its world premiere at Telecom-Geneva 91.

"SUB OCEANIC SHUTTLE"

13th November, 1991 : 4 spectacular minutes made entirely in Computer Graphics, 70mm and 30 frames per second, with a totally insane voyage under the surface of the sea in search of terrifying monsters and lost cities. Directed by Jerzy Kular and produced for the United States, this simulation film (called a "ride"), is for release in "dynamic theaters" which are the rage on the other side of Atlantic and Asia. Presented for its world preview at the IAAPA, annual rendez-vous of leisure and fairs professionals, it received the award for the most innovative attraction.

HD/35mm TRANSFER

1st December, 1991 : The first unit to transfer European High Definition Video onto 35mm silver films, developed by ExMachina in collaboration with Ex Camera (Thomson Consumers Electronic), is now operational and available to members of VISION 1250.



ANIMATION AND ADVERTISING

Using its most recent developments in the field of Computer Graphics animation, ExMachina has brought a smile back to the face of a gloomy advertising market by making some innovative and amusing films.

Your toilets groan and moan, your broom dances, lightly rolling its hips while backing up, busy bees build tomorrow's cities, go to school and play rugby ? Incredible does not mean impossible ! Objects turn into characters, defying the laws of physics and logic and maybe even philosophy ... Space has no more frontiers and time is meaningless. Today's dreams have become visible reality, tomorrow they may even be tangible. The new images are here. Creatives... on your marks !



"SUPER FORMATS" AND "ENTERTAINMENT"

ExMachina has presented the first European simulation film intended for an international network of Dynamic Theaters (Simulation Theaters) : "SUB OCEANIC SHUTTLE".

Thanks to a large projection format, animated seats and dolby stereo, the viewer becomes the real hero of this frantic obstacle course. Will he come out of it unscathed ? ... In four minutes entirely produced in Computer Graphics, director Jerzy Kular and scenarist Jean-François Henry lead us into the most astonishing and mysterious underwater universe.

All challenges have been faced head on: make various organic and mineral elements disturbingly credible, develop all realistic effects required to plunge the viewer into the very heart of the image (bubble effects, enigmatic propagation of light, sparkling of deep water, effects of hyperspeed ...), animate voracious fish and giant octopus with gaping mouths that affirm the threat of their mere presence. Images pass by at a breathtaking speed with majestic scenery hailing from the deepest depths.

The projection format (70mm, 8 perfs, 30 frames per second) has required considerable image manipulation with specially configured workstations and calculators (with a resolution of up to 3000 points).

In preparation : a 5-minute IMAX film entitled "GAIA" for the stock of images of the French Pavilion at Seville 92 and a 13-minute film, 70mm/8 perfs, 3D, for the Universal Exhibition of TAEJUN 93 (Korea). See you next year !



HIGH DEFINITION VIDEO AND CORPORATE FILMS

1250 lines of 1920 points each. 2,4 millions de pixels in which to express oneself per image. That's a lot of space for messages !...

Since "NUOVA ALFA 33", the first corporate film made in European High Definition, four other prestigious productions have succeeded in their conquest of this new communications space: "PROTEO 164", "LOOKING INTO THE FUTURE", "CHARTRE 92" and "FRANCE TELECOM brings the World closer".

"LOOKING INTO THE FUTURE" was commissioned by THOMSON CONSUMERS ELECTRONIC for the launch of their 16/9 television sets. In 6 minutes, it traces the history of television and describes the advantages of the airing standards of tomorrow. In February 1991, it was the first film to combine the very latest techniques in High Definition production : Computer Graphics, real shots, special effects... Directed by Pascal Roulin, this film has paved the way for the complex productions which will fill the screens of tomorrow.

"FRANCE TELECOM brings the World closer", a 6-minute film also directed by Pascal Roulin, is another daring example. It elegantly combines Computer Graphics with real images shot in High Definition and 35mm, all mixed, with special effects added through the special effects line specially developed by ExMachina.

The images therefore offer an infinite space, unlimited in terms of definition or manipulation, in which, under the very eyes of the viewer, images of a hitherto unrivalled quality, weave their special magic, closer than ever to 35mm whose format they have already adopted.



HIGH DEFINITION VIDEO / 35mm FILM TRANSFER

In collaboration with Ex Camera (Thomson Consumers Electronic), ExMachina has developed a digital line for transferring High Definition Video onto 35mm film, the first of its kind in Europe.

The first conclusive tests were successively presented at the Salon de Montreux (June 1991) where a transfer onto 35mm film of Mahler's 8th Symphony, recorded by the BBC, was screened by specialists in the field.

The processing is both digital and automatised all along the line. Image quality is therefore retained in spite of several successive manipulations. The sequences (existing in High Definition of type 4xD1 or 2xD1) are automatically transferred onto a video-digital disc which is used for intermediate storage. A software program specially developed by ExMachina has access to all the elements on this disc and reconstitutes each image in a 16/9 format. An adapting filtering is applied to the two frames of high definition video so as to render the movement correctly whilst ensuring that the contents of the image retain all their potential resolution. The software then transmits all the resulting red, green, blue components to a film recorder which exposes them in successive order, with appropriate color filter, onto 35mm negative film.

The use of a standard negative film (Kodak 5245), the development of which has been completely mastered by the laboratories, as well as the computer control of colorimetric and densitometric characteristics of the line, result in optimal image quality.

The line is now operational and has been made available to members of VISION 1250 in order to foster the development of productions in European High Definition Video.



AWARDS IN 91

First Place in the Corporate Presentations Category for "NUOVA ALFA 33" - NCGA - 1991 - **Chicago**
Best Corporate Film for "LES YEUX DU CHAT" - BIARRITZ 91 - 1991 - **Biarritz**
Best Commercial for "LOOKING INTO THE FUTURE" - IMAGES DU FUTUR - 1991 - **Montreal**
Best Commercial for "PROTEO 164" - EUROGRAPHICS - 1991 - **Vienna**
Best Computer Graphics Commercial for "PROTEO 164" - VIDIGRAPH - 1991 - **Valencia**
Best Commercial Mixed Techniques for "CADASTRO" - VIDIGRAPH - 1991 - **Valencia**
Best HDTV Corporate Film for "France Telecom - Bring the World Closer" - PARIS CITE - 1991 - **Paris**
Best Special Effects for "SHEHERAZADE" - Festival de l'Image de Film - 1991 - **Châlon sur Saône**
Special 10th Anniversary Award for "Bee a Winner" - NICOGRAPH - 1991 - **Tokyo**
Award of the most innovative attraction for "Sub Oceanic Shuttle" - IAAPA - 1991 - **Orlando**
Finalist with "PROTEO 164" and "LOOKING INTO THE FUTURE" - NCGA - 1992 - **Anaheim**



A FEW FIGURES

Market

60 % of films are produced for foreign markets (Europe, USA, Asia)

Volume of activity

70 films a year on average with a total of more than 90 minutes of High End CG
37 Millions Francs

Turnover 1991

1 Million Francs

Estimated operating result

Total amount invested in equipment

5,7 Millions Francs

Hardware

ExMachina has the following equipment :

- 20 SGI "Personal IRIS" 4D
- 3 SGI- Power 220 bi-processors
- 4 SGI- Power 320 bi-processors
- 5 SGI- Power 440 quadri-processors
- High Definition Paintsystem
- 5 ABEKAS frame memory A60
- 5 Digital Video Recorders
- 1 Harry Quantel
- 35 mm, 70 mm and HDTV output.

These elements constitute an entirely digital line.

Software

- TDI Explore, of which 7 additional licences in 1991
- 2 SoftImage licences.
- The Research and Development team, made up of 5 engineers, studies ExMachina software such as "particle system", character animation, image processing...