

The first meeting in 1992,  
Agreement to build the holographic laboratory in Bordeaux  
with goal - joint development on display holography,  
specially color, using experience of both sides.



*Y.Gentet, M.Shevtsov "20-YEAR PATH TO PERFECTION: THE LATEST ACHIEVEMENTS IN COLOR HOLOGRAPHY"*



Michael Shevtsov

The first goal was to make a portraiture studio using pulse lasers. Two lasers have been produced by A. Kornev and V. Pokrovsky (SOI).



Christian Picard and Vasily Pokrovsky adjusting the first portraiture set-up

## The first portraits («colorized») made



Autoportrait

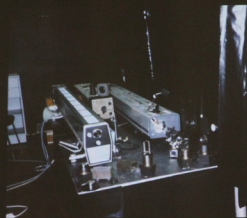


"Bearded man"

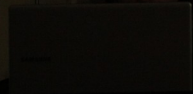
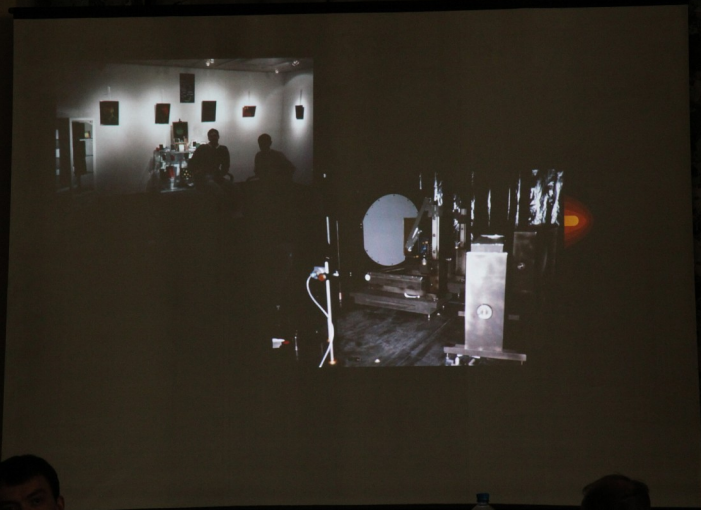


Owl

## 1993. The first bench for color holography



Set-up with He-Ne (red), Ar (green) and He-Cd (blue)



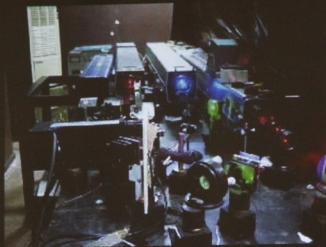
Michael Shevtsov

## 1994. Beginning of manufacturing color emulsion



Very first chemical experiments

## 1995. Constant improvements



Set-up No.2 for full color holography



## The LADA story





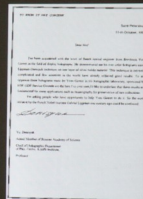
## 1995. After the first good results



The test color  
hologram achieved  
on that date



Meeting with Yu. Denisyuk in  
museum of holography of SOI  
St.Petersburg, 1995.



Recommendation letter of Yu  
Denisyuk to support the  
project.

## 1997: Russian-French "Palace of holograms" during International Fair of Bordeaux





Some color holograms made in 1998



## 2000. Set-up for recording "Clown" color hologram

- Set-up was equipped with many wavelengths to find optimum combination to reach good color balance. The exposure time adjusted for ratio 1:1:1 between red (660, 647, 633 nm), green (532, 515 nm) and blue (476, 457, 441 nm)



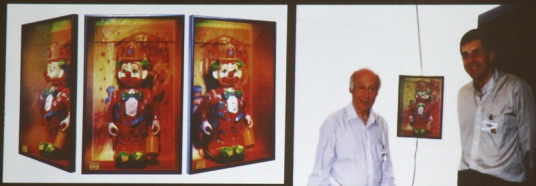
## Denisyuk hologram and original object under the laser light



- To compare brightness and color balance of the hologram vs original object both illuminated with the recording laser lightning



2000 IHMA AWARD WINNER FOR  
THE NEW HOLOGRAPHIC TECHNIQUE OF YEAR!  
(IHMA: *International Hologram Manufacturers Association*)



• Color Ultimate hologram «Clown»  
demonstrated in Vienna

• Emmet Leith visit Yves Gentet and  
his "Clown"

## Serie of ultimate holograms made in 2001-2003



Knite (30x40 cm)



Tutankhamun (30x40 cm)

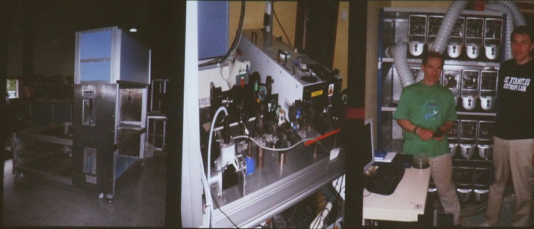


Obelix (20x25 cm, H2 Dynisyuk)



Swatch 15x20 cm,  
(2-channel H2)

## 2005. Holoprinter project



## HOLOPRINTER FOR PIXELIZED HOLOGRAMS

### 2005: The original project goals

- very large size (1 meter wide prints, continuous rolls)
- full color (RGB technique 440/532/660 nm)
- fast printing (50 Hz)
- hogel resolution of 0.8 mm (0.64 sq mm)
- Wide field of view : **with horizontal and vertical angle of view of 120°**
- full parallax hologprints from 3D computer generated images.

2008: What we succeeded: every goal except the size, our prints were limited to 60x80cm (the size of our coating machine ). We did larger sizes but using mosaic technique .



Full parallax "Beau Dieu" 30x40 cm



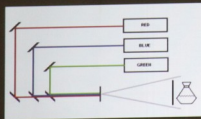
4-channels "AREVA nuclear station" 120x60 cm

- Continuous improvements in brightness of printed holograms



## 2008. The mobile camera for recording Denisjuk holograms "in-sitru"

**The project background** : since 1994 we have focused our research activity on the development of a recording material for colour Denisjuk holograms. We had the goal to achieve very high quality color records with the use of low power lasers (25mW). When DPSSlasers became commercially available we designed this mobile system



*The principle of the mobile colour holographic camera operation*



*Now we record it in-situ!  
Our unique mobile laser projector  
allows holograms (up to 30x40 cm)  
to be recorded INSIDE a museum.*



*We compare the original and its  
Ultimate Hologram double under the  
light of the laser projector*

- The first color hologram made with the mobile camera
- (with 3 lasers 25 mW)



All our products: Ultimate plates and films, Denisyuk holograms,  
holoprints can be ordered on our website

[www.ultimate-holography.com](http://www.ultimate-holography.com)

WE THANK YOU FOR YOUR ATTENTION