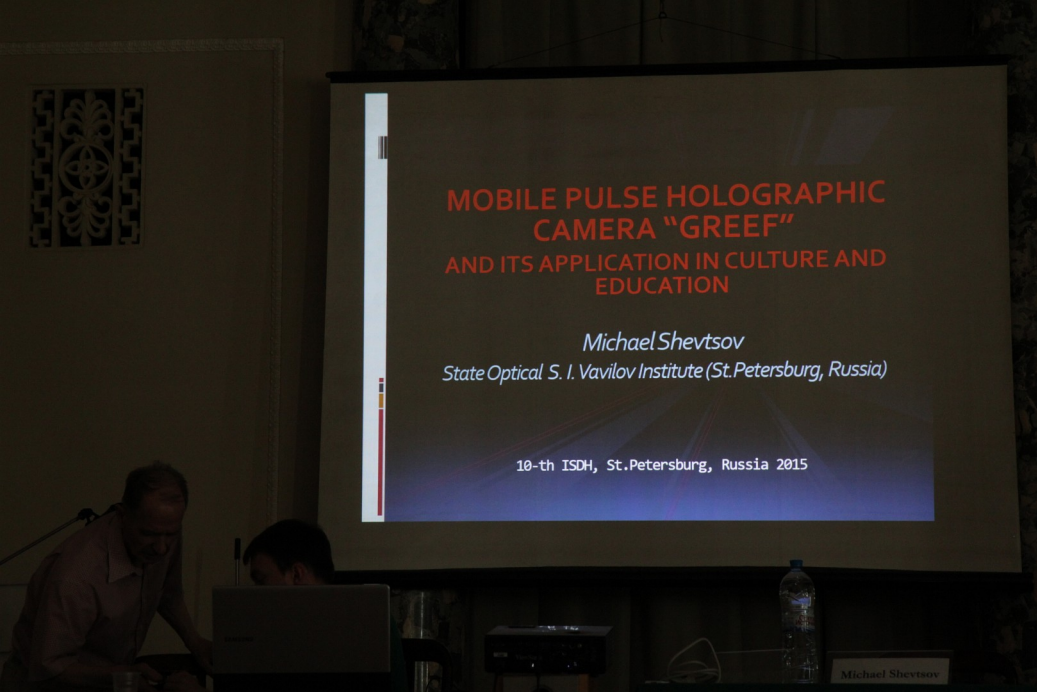

MOBILE PULSE HOLOGRAPHIC CAMERA "GREEF"
AND ITS APPLICATION IN CULTURE AND EDUCATION
Michael Shevtsov
State Optical S. I. Vavilov Institute (St.Petersburg, Russia)
10-th ISDH, St.Petersburg, Russia 2015
Michael Shevtsov

M. Shevtsov "MOBILE PULSE HOLOGRAPHIC CAMERA "GREEF" AND ITS APPLICATION IN CULTURE AND EDUCATION

PULSE HOLOGRAPHY IN STATE OPTICAL S. I. VAVILOV INSTITUTE

State Optcal S. I. Vavilov Institute, St.Petersburg, Russia.

Holographic laboratory of Yu. N. Denisyuk

Laid the foundations of display holography in the beginning of 60-s

"Об отображении оптических свойств объекта в волновом поле рассеянного им излучения"
Доклады АН СССР, 1962

Yu. N. Denisyuk

Developed pulse holography with ruby laser in the end of 60- s, was the first who recorded two colors pulse portrait in 80- s

D. I. Staselko

Developed pulse holography with Nd:YAG laser in 90- s, designed the equipment and technology of holography portraiture

V. N.Krylov

GREEN STAR LASER

In 1990 after PERESTROIKA (1985-1990) the group of researchers from Laser Institute of SOI designed and produced original pulse Nd:YAG laser GREEN STAR for holography and the other applications.

A. Kornev

V. Pokrovsky

V. Stupnikov

«GREEN STAR»

The compact laser «GS» for pulse holography, spectroscopy, scientific investigations.
The «GS» laser system is ideal
for holograms of the large-scale museum rarities
near exhibitions and
dynamic objects (human portraits).

Technical Specifications

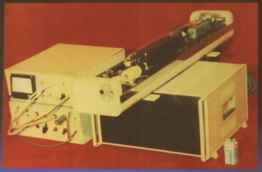
Wavelength	0.532 μm
Nominal pulse energy	1 J
Pulse repetition rate	1 ppm
Pulse-to-pulse energy drift	< 1 %
Collimated beam	4.5 mm
Coherence length	9.5 mm
Pulse width	8.5 ns, 15 ns
Pulse mode operation	single

Electrical Requirements

Line voltage	220 V AC
Peak power	500 W

Size, weight

Laser Head	420×210×600 mm, 15 kg
Power Supply	280×400×500 mm, 30 kg



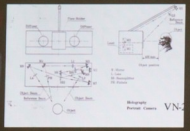
Yu. DENISYUK AND PULSE HOLOGRAPHY

Yu. Denisyuk, A. Kornev and V. Krylov
London 1991

Yu. Denisyuk with his assistances involved in pulse holography meets I. Goldman (USA) and L. Tanin (Belarus) in holographic department of SOI

M. Shevtsov "MOBILE PULSE HOLOGRAPHIC CAMERA "GREEF" AND ITS APPLICATION IN CULTURE AND EDUCATION

GREEN STAR LASER AND HOLOGRAPHIC CAMERAS «VN»



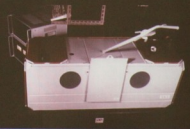
Scheme of portrait holographic camera VN-2

Specification of VN-2

Models of VN-camera

Valentin N. Sizov
Vitaly N. Krylov
Victor N. Mikhailov

Holography cameras VN-2 were delivered to:
- Switzerland (2)
- Italy
- Korea (2)
- Estonia
- France (GS)
- Austria
- Russia (GS-5)...



Internal and external view of portrait holographic camera VN-2

M. Shevtsov "MOBILE PULSE HOLOGRAPHIC CAMERA "GREEF" AND ITS APPLICATION IN CULTURE AND EDUCATION"

PULSE HOLOGRAPHY WITH CAMERA VN-2

A.Kornev, V. Stupnikov, V. Krylov , S.Kim (Korea)

I.Wöber (Austria), H. Bjelkagen (Sweden), Alexander (USA), V. Palyakov and M. Shevtsov (Russia) in Holography Center Austria

Yves Gentet (France) and his camera "Emerald" with GREEN STAR laser inside)

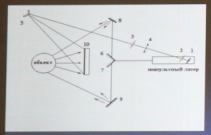
Samples of reflection copies from transmission masters recorded by pulse camera by V. Krylov and Co.

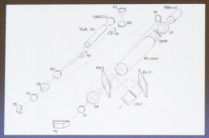
V. Krylov (holography selfi) | Yu. Denisyuk | S. Benton | S. Benton and Yu. Denisyuk | J. Caulfield | M.Yermolaev | Dragonfish

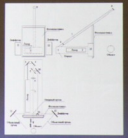
M. Shevtsov "MOBILE PULSE HOLOGRAPHIC CAMERA "GREEF" AND ITS APPLICATION IN CULTURE AND EDUCATION"

MOBILE PULSE CAMERA "GREEF" (green flash) PROJECT

Once upon a time…







Scheme and design of mobile holographic camera GREEF

MOBILE PULSE CAMERA "GREEF" PROJECT REALIZATION

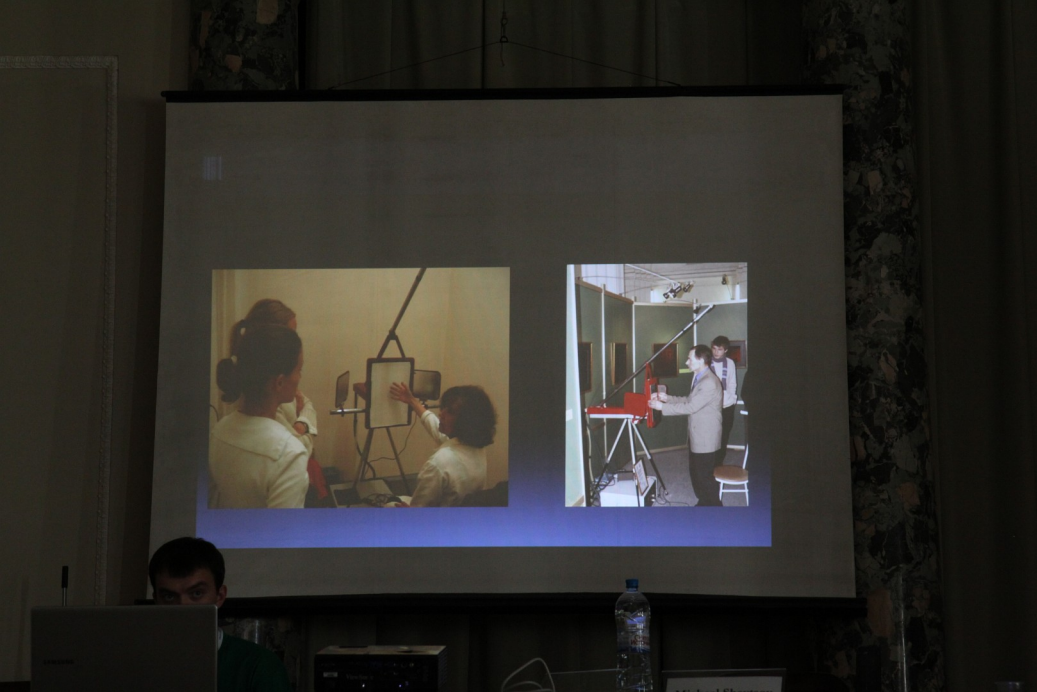
MOBILE PULSE CAMERA "GREEF"

Запис

MOBILE PULSE CAMERA "GREEF" APPLICATIONS

Michael Shevtsov

Michael Shevtsov



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BRUSSELS EUREKA 2001
DIPLOMA
Chevtsov Mikhail, Komev Aleksey,
Pokrovsky Vasily, Stouprikov Vladimir
Caméra holographique portative
POUR L'INVENTION
VOOR DE UITVINDING
FOR THE INVENTION
FÜR ERFINDUNG
Médaille d'or

Michael Shevtsov