

# colour holographic

# unreal reality

Introducing a hologram of such clarity that, when lit correctly, it is indistinguishable from the actual object it depicts. TruLife™ holograms have been carefully developed over 14 years, with constant improvements being made along the way. The result is a hologram so realistic, it's unreal.

## **Contact Us**

For more information on TruLife please visit our website at

# www.colourholographic.com

Or contact Gideon Raeburn

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# **Case Study: The Staffordshire Hoard**

In December 2010 Dr David Symons, Curator of Antiquities and Numismatics at the Birmingham Museum brought a number of items from the Staffordshire Hoard to our London studios.



# What are the museum applications and benefits?

#### **Enabling a portable collection**

Museums can have exact copies of major items, to be used for display in secondary locations and on touring exhibitions.

#### **Education**

Being easily transportable, TruLife images mean museums could make items available to schools, for greater appreciation and study. Using a magnifying glass on the TruLife image will has the same effect as if the real object was present.

## Multiple views of an object

Using TruLife, a display could include multiple viewpoints, of say the reverse or component parts of an object.

## Lend without losing the item from your museum's display

Where items are in demand from other museums why not lend a TruLife version of the object?

## Add to a collection more cheaply

Where there are gaps in a collection, why not fill them with a TruLife image?

#### Secure for the nation

If there was a fire or theft, having TruLife versions of key items stored in a separate location secures a true 3D record of the object which could then be used as a substitute to be put on display, or as evidence in any insurance claim.

#### Conservation

Some items are slowly changing. A TruLife will record the item's current characteristics for generations to come.

## **Recording stages of restoration**

Items often have to be repaired, taken apart and restored. A TruLife will be a permanent record of the processes involved and be invaluable as a record for any future intervention.

#### **Sponsor/donor benefits**

Sponsors and donors could be offered TruLife copies of key museum items/gifts as a reminder of their involvement.

#### Revenues

Museums can finally sell true 3D representations of their key items, without the copyright issues of digital images. Please see the pricing section for more details.

#### **Lower insurance costs**

Where a TruLife is used in a display or is lent out, insurance costs will be negligible.

#### **Less security and transport costs**

A TruLife display will need less security to protect it in situ, or to send/lend, and transportation will be much less costly in terms of time and expense.

## More display opportunities

As a TruLife image does not have the same security and insurance costs, museum items can be displayed in more quirky environments thus broadening its appeal to new people who do not visit museums.

# **Case Study: The Harrison Clock**

Colour Holographic made its first museum TruLife hologram for The National Maritime Museum, Greenwich in 2007 when our emulsion was still single colour.



# Frequently asked questions.

#### Is the process invasive to the object?

No, the light incident during the TruLife exposure is less than that from a 50W light bulb, with an exposure time of less than a minute. Once placed in the recording position the object receives no further contact apart from these very weak light rays.

#### Can TruLife be made in your museum?

Yes. We have a portable unit to shoot the TruLife masters. We will need access to a light free room with power points and also to a sink and water supply to develop the TruLife master after exposure.

#### How large can the Trulife be?

 $8'' \times 10'' (20 \times 25 \text{ cm})$  is our current standard size using the portable unit and  $12'' \times 16'' (30 \times 40 \text{ cm})$  is currently the largest feasible size if producing the TruLife in our London studio.

## Can I enlarge or reduce the size of the objects on the TruLife?

No – the image is a perfect one to one copy of the object..

#### Can we make multiple copies from the TruLife?

Yes – once we have made a master TruLife from your object(s) we can use this to make further TruLife copies without further need for the original object, unless you desire a different composition of the object.

## Can the holograms sold be copied?

No - only the original master that we make can be copied, providing control and security to the museum.

#### Can any object be turned into a TruLife hologram?

Technically, solid objects make the best Trulife images eg ceramics, metal, jewelry etc,. as the object cannot move during the TruLife exposure. The more solid the object, the less the risk of a poor exposure or in 'extreme' cases the object moving too much which would prevent us achieving an acceptable holographic image.

## How is TruLife displayed?

For a perfect replay of TruLife images and necessary for very deep objects, we can supply a laser display, using three solid-state lasers matched exactly to the wavelengths of the lasers used to shoot the TruLife. This display costs £5,000 and is the ultimate way to display your priceless item. Alternatively for a very good replay suitable for shallower objects we have sourced LED's whose wavelengths closely match the recording lasers. We offer three types of plug and play unit incorporating these LEDs, or alternatively these LED's and fittings can be supplied so that you can incorporate them into your own displays.

#### How much does TruLife cost?

An 8 by 10 inch hologram master of your object made in our studios starts at £2,000, depending upon the complexity of the object and how long it takes to set up. Where we bring our portable unit to your museum the TruLife master cost will typically start at £4,000, depending on your location. Copies from these masters are typically £300 each.

At our discretion we also offer licensing and royalty deals with museums, whereby CHL makes TruLife images of key items in exchange for a license to sell TruLife copies of the item and or a share of lending fees charged by the museum for the item. In this way the museum will have no costs, but access to a new stream of royalty and or lending revenues.

# **Case Study: The Small Arms Corps Weapons Collection**

TruLife images were made of a number of historical firearms. These were recorded on location at the Infantry Training Base in Warminster where the collection is located.



## Case Study: The UCL Grant Museum of Zoology

In April 2013, Colour Holographic took their mobie holographic unit to the museum in order to produce Trulife images of a selection of the museum's rare artefacts and specimens.



## What is a hologram?

The word Hologram derives from a combination of the Greek – hólos, "whole" and grafe, which means "message". Holography is the process of recording light either transmitted or reflected by an object, so that this light field can be reconstructed, without the object being present.

TruLife holograms capture the exact light rays that reflect off an object – jewels sparkle as if they were real, shadows are cast; your eye sees the same light rays as it would were the real objects present. As a result, your eyes discern no difference between the hologram and the real thing. That's unreal reality.

#### How do we make TruLife?

TruLife holograms are made using Colour Holographic's proprietary light-sensitive plates, which offer a vastly greater resolving power than a traditional photographic plate. They capture the frequency, intensity and direction of the light waves, meaning we can create true 3D replications

of real life objects; hence TruLife.

This analogue technology has absolutely no digital manipulation of any kind. We take the real object and place it on an anti-vibration isolation table. This is to ensure the object doesn't move at all during the process – even a difference as small as a wavelength of light will cause a loss of definition in the hologram.

The holographic plate is then placed above the object and exposed to a spread laser beam of white light, which actually consists of a red, blue and green laser beam combined. This beam passes through the transparent plate and onto the object, where some of it is reflected back. This secondary reflected beam interferes with the incoming light beam, creating an interference pattern on our recording material.

After exposure, the holographic plate is removed and processed in a completely dark environment.

Once the image has been processed, our hologram is ready to be examined.

