A new tomb is being shaped in Egypt's Valley of the Kings—and this one will look exactly like the famous Tomb of Tutankhamun before its desecration. The 21-metre longest of Tutankhamun's tombs in Egypt's Valley of the Kings made the first vault of the tomb room.

The ancient tomb is being reconstructed as a replica of the original tomb as it was in 1922, when British archaeologist Howard Carter first entered it. The project is sponsored by the Howard Carter Trust, which raised $1 million for the project.

"This is an important part of the project to create a perfect copy of the tomb, which was destroyed in 1922," said Howard Carter's great-granddaughter, Amelia Carter. "We want to make sure that the tomb is preserved for future generations to appreciate the beauty of the artifacts and the remains of what was found within it."

The replica will be built on the same site as the original tomb, which was destroyed by robbers in 1922. The replica will be opened to the public in 2024, along with other replicas of other tombs in the Valley of the Kings.

The project is being funded by a major grant from the Howard Carter Trust, which has been working for years to preserve and restore the original tomb. The trust has also been working with archaeologists to create a detailed replica of the tomb, using the latest technology and techniques.

"We are very excited to be able to create a perfect replica of the tomb," said Amelia Carter. "We want to make sure that this is done in a way that is respectful of the original tomb and its contents."

The replica will be built in the original tomb's room, and will be equipped with the latest technology to allow visitors to experience the tomb as it was in 1922. The project is expected to take two years to complete, and the tomb will be opened to the public in 2024.

To learn more about the project, visit the Howard Carter Trust's website or follow them on Twitter and Facebook.
FIT FOR A KING

Almost a century after its discovery, the burial chamber of Tutankhamun is being recreated down to the minutest detail in the Egyptian desert. Peter Arden reports on the technical revolution that has made it possible and how a new age of ‘facsimile tourism’ could help preserve many more of the world’s antiquities.
In November 1922, Howard Carter, a British archaeologist who had spent all his adult life in Egypt, made the discovery that traversed through an incredible world, and continues, even in the age of cinematic blockbuster and virtual reality, to enthrall us. Carter was a man who combined practical ingenuity and a vivid sense of justice. He had spent five years, supported by his patron, Lord Carnarvon, excavating in the Valley of the Kings in Thebes (modern-day Luxor), conducting a painstaking and well-planned search for the royal tombs of ancient Egypt. But the results were dismaying. This was to be his final day. One day, after exposing the base of some of the workmen’s huts, he found a step that had been carved into the rock. He inscribed his efforts and date later was joined by his sponsor, Lord Carnarvon. Carter was standing by the tomb when Lord Carnarvon asked, "What is in there?" Carter replied, "It’s a magnificent tomb." It was the tomb of Tutankhamun.

Today, the tomb of Tutankhamun has become one of the most popular sites in the world, visited by millions of people each year. The small, square, stone sarcophagus that housed the mummy of Tutankhamun is surrounded by hieroglyphics that tell the story of his life. The tomb is a remarkable example of ancient Egyptian craftsmanship, and it is one of the most well-preserved tombs from ancient Egypt. The tomb is located in the Valley of the Kings, a valley that contains the tombs of many of the pharaohs of ancient Egypt.

The tomb was originally discovered in 1922 by Howard Carter and Lord Carnarvon, who were searching for the tomb of Tutankhamun. When Carter opened the tomb, he was amazed to find that it was well-preserved and contained a wealth of artifacts. The tomb is now protected by the Egyptian government and is open to visitors on a limited basis.

"I want people to come in and actually say, "My goodness, I can't tell the difference!'"

Adapted from a quote by Howard Carter.
facing page: Tutankhamun’s bejeweled headdress and cartouches on the exterior of his sarcophagus are visible through a window in the museum.

Tut and tourism
by Helen Leland

Tut was a time when tourist guides had to shout to be heard above the din made by buses of foreign visitors streaming through the halls of the Egyptian Museum in Cairo to admire treasures such as the mask of Tutankhamun and the other glittering artifacts found in the tomb of the boy king.

Nowadays, there are fewer tourists and hardly any noise inside the pristine, high-tech building in Tahrir Square, the epicenter of the 2011 revolution that ended the authoritarian rule of President Hosni Mubarak and ushered in a new, if tumultuous, era. But Tut has continued to draw large crowds, especially when its exhibit coincides with major international festivals.

The Tutankhamun exhibition has been one of the biggest draws of the festival, drawing huge crowds. Last year, the exhibit attracted nearly 5 million visitors, and it continues to draw large crowds this year, with millions expected to come to see the exhibit.

The country has struggled to contain crowds, and efforts to manage the influx of tourists have been limited.

Business at all these destinations has been negatively affected. But worse, it is "cultural tourism" to Cairo, Luxor, and Aswan. These are destinations that do not receive large numbers of tourists, but because of their cultural and historical significance, they are still important to the country.

Egypt’s tourism industry is currently in a state of decline, with many resorts and hotels closed due to the political unrest and security concerns. The government is trying to attract more tourists by offering incentives such as visa-free entry for some nationalities and discounts on hotel stays.

‘We have this deep instinct to touch “the real thing” when we see it – but if everyone does it, it is destroyed’

This is the sentiment of the IET’s Michael Roberts and Julian Stevens, who were among the first to enter the tomb of Tutankhamun in 1922.

The tomb was a time when the boy king’s treasures were first discovered, and it is now considered one of the most important archaeological finds of the 20th century.

The exhibit has been extremely popular, with millions of people expected to come to see the artifacts from the tomb of Tutankhamun.

The exhibit has also been controversial, with some people concerned about the impact on the site and the artifacts.

“Tutankhamun was not a museum piece. It was a living, breathing culture that existed before and after his time,” said one of the museum’s curators.

The exhibit has also raised concerns about the condition of the artifacts, with some artifacts showing signs of wear and tear.

The exhibit has been criticized for its impact on the site, with some people concerned about the impact on the site and the artifacts.

The exhibit has also been controversial, with some people concerned about the impact on the site and the artifacts.

“We have this deep instinct to touch “the real thing” when we see it – but if everyone does it, it is destroyed”

The proof of all this, now, will be in the pudding. Although the closure of the original tomb of Tutankhamun was announced by the Egyptian authorities in 2020, it will remain open for a while, in tandem with the facsimile. “We want people to come in and actually say, ‘My goodness, I can tell the difference,’” Lowe says. More importantly, though lucky enough to become one of the two visitors who will be able to pronounce on what is becoming a controversial issue, one is not going to be invited to meet any final hope to capture the spirit and magic of an original experience. And indeed, one is called in an occasion all when in so closely resembles the original that no one can tell the difference? -
for Florence’s Baptistry, replaced by shining copies in 1990 while the originals moved indoors.

But these facsimiles, created with varying degrees of skill, have never pretended to replicate the originals with the precision that is claimed by the scientists of Factum Arte. They were measured taken in good faith. But with the advent of mass tourism, a more discriminating public began to worry about what they were seeing. They expected the real thing. It was not enough to gain a vague impression of the cultural phenomenon at hand: the experience had to be authentic.

It is this cult of authenticity that needs to be rethought, Lowe says. “People need to start separating the idea of authenticity from that of originality,” he says. “It is a very important moment. We are living in an era of anti-ageing: we are busy injecting and sculpting our very faces. Our whole notion of originality is in flux, and a lot of intellectual work is needed to help us redefine it.” Mass cultural tourism as it has developed over the last half-century is no longer an option. “We have to understand: these are things that were built to last for eternity, but never meant to be visited.”

A turning point, he says, came when he and his team were tasked with creating a facsimile of Paolo Veronese’s “The Wedding at Cana”, one of the great monumental paintings of the Renaissance. The painting hung in the Benediction of the Monastery of San Giorgio Maggiore in Venice for 235 years until it was plundered by Napoleon and shipped to France. Today it still hangs in the Louvre.

The facsimile was commissioned by Venice’s Giorgio Cini Foundation in 2007 so that it could hang in the monastery’s refectory, recreating the original context of the artwork. “I was incredibly nervous,” Lowe says, recalling the day of its unveiling. “But when it was finally shown, I would say about 30 per cent of the people there just burst into tears. Here were a lot of cultured people who knew their history, who knew what they were looking at, and who felt a strong emotional reaction at something which they knew to be a copy.

“It marked a real change in attitude. It was difficult to argue that this was less authentic than the heavily restored version which was hanging at the wrong height, in the wrong light, and in the wrong city. This was a painting that was created in dialogue with the building in which it was housed. They talk to each other.

“I love it when certain people – and it is a typical response of the English upper middle classes – say they don’t want to come to Venice and see it filled with copies. One of my responses is: do they know that the horses outside St Mark’s are copies? Do they know the Campanile is a copy?” That kind of snobbery, he believes, is beginning to be tempered, thanks to the precision of digitally measured facsimiles and a wider appreciation of the effects of mass tourism.

Michael Daley is the director of ArtWatch UK, a pressure group which acts as a watchdog over various attempts at conservation and restoration, publicising what it perceives to be any threat to the “integrity” of works of art and architecture. He describes the new age of facsimile tourism as a “fascinating phenomenon”.

“What is intriguing about [Factum Arte] is that they are absolutely frank and explicit about the nature of their venture, and they are making a positive and valuable contribution towards diverting the real threats to works which can no longer withstand the pressure of mass tourism and environmental pollution,” he says.

This, Daley adds, is in contrast to the efforts of many restorers who are “turning unique and irreplaceable artworks into facsimiles of their supposed original selves”. He cites as an example a proposed project to rehouse a group of badly faded Mark Rothko paintings from Harvard University’s Holyoke Center, using computergenerated lighting effects to simulate what are thought to be the paintings’ original colours.

Daley also laments the “snobbery” that continues to exist over reproductions and facsimiles, which he says is “unwarranted”. “There is this superstitious feeling about the real thing. We have this very deep instinct to want to touch it when we see it – but if everyone does it, it is destroyed. Unless we are prepared to bite the bullet, we will go back to the state where only the most privileged people will be able to see great works of art.”

The technology used by Factum Arte is not only aimed at replication: it is also helping to create things that have never existed. At London’s Sir John Soane’s Museum, a current exhibition on the Italian designer and architect Giovanni Battista Piranesi has used 3D scanning techniques to make full-scale physical reproductions of the artist’s hitherto unrealised designs.

More projects are in the pipeline: back in the Valley of the Kings, where work is proposed to produce facsimiles of the tombs of Seti I and Queen Nefertari, both of which are currently closed to the public; and wider afield, too. One of these is to “reunite” the various panels of the Grifoni chapel of the Basilica of San Petronio in Bologna, spread today all over the world’s galleries.

There is, in all these ventures, a philosophical shift in the air. What was once regarded as an essentially kitsch idea is gaining currency. First, because of the sophistication of the technology; second, because there is no better alternative for saving fragile works of art from the effects of mass tourism; and finally, because it helps solve some of the ethical dilemmas around the subject of where a work of art actually belongs. I ask Lowe if he thinks he could usefully apply his attentions to the Parthenon Marbles, the most contentious such issue in today’s cultural world. “I would love to be asked to make copies of all the Marbles,” he replies. “And then put them side by side with the originals, ask the ministers of culture from Greece and Britain to come, and alternately pick from them.” He knows that is something of a fantasy, but can’t resist a wistful pitch. “It would be a brilliant project. And very possible.”

Peter Aspden is the FT’s arts writer. To comment on this article, email magazineletters@ft.com. Carter’s House and the Replica of the Tomb of Tutankhamun will open officially on April 30 during a one-day event organised by the Ministry of Tourism, the Ministry of Antiquities and the EU ambassador to Egypt. It will be open to the public from May 1. A “Travel Show Special” will feature the story behind the replica on BBC2, May 2, at 10.35am. To find out more about Factum Arte, go to factum-arte.com and factumfoundation.org.
Dalla tomba di Tutankhamon al David
Il facsimile può essere un’opera d’arte
Scanner e tecnologia 3D per copiare il capolavoro e preservarlo

Per i turisti
MA LE COPIE DEI CAPOLAVORI POSSONO ESSERE VERA ARTE?

Il tema L’iniziativa in Egitto e il dibattito: «Bisogna separare l’idea di autenticità da quella di originalità. Anche i cavalli sulla facciata di San Marco sono imitazioni»

Le origini Per i romani era normale copiare statue greche

di STEFANO BUCCI
Come si dice in questi casi, Adam Lowe, patron della Factum Arte, deve averci preso gusto. Dopo aver già ricreato nel 2007 per la Fondazione Cini di Venezia un facsimile delle monumentali «Nozze di Cana» di Paolo Veronese oggi al Louvre (è il quadro che fronteggia la Gioconda di Leonardo) ha definitivamente sdoganato il concetto, secondo lui ma anche secondo molti critici ormai superato, che tutto quello che è copia sia per forza brutto, cattivo e senza ispirazione. (Nella foto, la copia dei David di Michelangelo davanti a Palazzo Vecchio a Firenze).

Alla fine di questo mese, nella Valle de Re, nel cuore dell’Egitto dei Faraoni, Lowe inaugurerà così una copia 1:1 della tomba di Tutankhamon, una copia destinata a diventare il nucleo di una sorta di dépendance in 3D (realizzata a colpi di scanner, laser e altre tecnologie futuribili) dove si potranno ritrovare in copia tutti i tesori della tomba originale (corredo e pitture compresi). Un capolavoro in qualche modo minacciato dal suo stesso successo: oltre miliardi visitatori al giorno per un piccolo spazio di sessanta metri quadrati, rimasto per oltre 3.450 anni preservato dalla curiosità umana e ora quotidianamente distrutto da folla di turisti e dal relativo peso di umidità, polvere, rumore, flash.

La teoria di Lowe (nato in Inghilterra nel 1959, ma la Factum Arte ha sede a Madrid) non fa una pialega: «La gente, e quindi i visitatori, devono imparare a separare l’idea di autenticità da quella di originalità, in qualche modo è un’obbligazione perché capolavori come quelli della tomba di Tutankhamon erano pensati per durare in eterno, ma nessuno all’epoca avrebbe certo potuto immaginare che fossero destinati a diventare un luogo pubblico, accessibile a tutti». E aggiunge: «Quanti sono gli altri parte che i cavalli di Venezia, quelli sulla facciata di San Marco sono in realtà una copia oppure che il David davanti a Palazzo Vecchio, a Firenze, è un facsimile d’epoca di quello originale oggi all’Accademia?». I critici sostengono d’altra parte, che a un visitatore mordi e fuggi (il New York Times aveva quantificato in 45 minuti il tempo minimo per visitare il Louvre e il Prado) ben poco importa che si tratti di un originale o meno, basta che si possa fotografare o che si possa fermare con un selfie (cosa che nei musei, per opere belle e fragili, non dovrebbe essere mai permesso).

Non è dunque solo una questione di snobismo: il facsimile nell’arte, mondo antico compreso, può essere considerato una realtà. Si parte dalle copie ellenistiche o romane di perdute statue greche (come il cosiddetto Anacreonte Borghese di Fidia oggi alla Carlsberg Glyptotek di Copenhagen o lo scudo di Stamford del British Museum) per arrivare al sette oggetti (due tripodi, un vaso, un candelabro, una caffettiera, un altare, un camino) ricostruiti, sempre da Lowe per la mostra sull’arte di Piranesi allestita nel 2011 da Michele De Lucchi alla Cini di Venezia (stessa operazione replicata, proprio in questi stessi giorni, al Sir John Soane Museum di Londra. Passando magari per quei facsimili del tesoro della Tomba di Seti I che l’archeologo italiano Giovanni Battista Belzoni aveva nel 1820 esposto ancora una volta a Londra, all’Egyptian Hall di Piccadilly. O per le repliche scattate da quella ricorrente «seduzione etrusca» (che toccava soprattutto gli inglesi) celebrata fino al 31 luglio da una mostra al Museo Maec di Cortona). Il confine tra facsimile e opera d’arte appare però sempre più spesso indefinito. Ancora in virtù delle nuove tecnologie, dal rendering allo...
scanner. Da una parte c'è così il grattacielo tarocco di Chongqing in Cina, letteralmente copiato (a colpi di rendering e in tempi più rietratti) dal Wangjing Soho di Zaha Hadid ma dall'altra ci sono le copie buone come quella a Firenze della Porta del Paradiso del Ghiberti, nata durante il restauro e oggi utilizzata per salvaguardare il capolavoro (l'originale si trova nel Museo dell'Opera del Duomo) dai danni di smog e inquinamento.

Ma forse oggi bisognerebbe guardare oltre, perché sempre più spesso gli artisti pensano alla copia come a uno strumento di possibile ispirazione, come nel caso di Stephen Jones che propone digitalizzazioni di statue antiche, magari solo con qualche ritocco. O come Guido Paolini che nella sua installazione «Mimesi» (1975-1976) ha utilizzato due calchi in gesso di una statua antica per trasformarle in una variazione sul tema della incomunicabilità contemporanea. O ancora come Francesco Vezzoli che per la sua mostra al Maxxi si è ispirato alla statua del Canova per trasformarla in semplici supporti per schermi video al plasma.

Quella tentata da Adrien Lowe (che sta progettando la ricostruzione, naturalmente in copia, in un luogo unico di tutti i tasselli dispersi del Polittico Grifoni della Basilica di San Petronio a Bologna) con la tomba di Tutankhamon non sembra essere più dunque un'opera alla Madame Tussauds, piuttosto la certificazione di una pratica antica diventata ancora più attuale ai tempi del 3D.
Vero e Falso

Replica of Tutankhamun’s tomb to open April 30

Apr. 24, 2014 03:00

By RANY MOSTAFA

CAIRO: An exact replica of Tutankhamun’s tomb is to open April 30 in the west bank of Luxor to protect the original tomb from further deterioration.

Under the supervision of Egypt’s Supreme Council for Antiquities (SCA), the creation of the tomb’s replica was initiated in 2009 and was led and funded by the Spanish firm Factum Art.

“The archaeologists tasked with the recreation of the tomb have spent five weeks recording every detail of the tomb, measuring 100 million points in every square meter,” Magdy Abdel Mohsen, head of the Revival of Ancient Art Department at the SCA, told The Cairo Post.

Laser scanners were used to capture the shape, texture and colors of the tomb, before recreating it with machine-operated blades, he said.

Despite a drop in Egypt’s tourism since the January 25 Revolution,
there are times when hundreds of people visited the tomb every day, he said.

But the temperature and humidity levels change inside the tomb, causing the walls to expand and contract, crumbling the elaborately decorated plaster walls, Abdel Mohsen said.

Bacteria and moisture from tomb visitors breathing, along with the heat emerging from their bodies and the warmth of the lighting will also negatively impact the tomb in the long run, he said.

The replica tomb is installed next to the house of Howard Carter, the British archaeologist who discovered the tomb in November 1922.

Carter’s house, which is located one kilometer south of Tut’s original burial site, is currently a museum. It was his residence for 10 years during the excavation of the Valley of the Kings.

“The project is part of a major initiative by the Supreme Council of Antiquities to preserve the tombs at the Theban Necropolis,” Abdel Mohsen said.

The project aims to divert tourists away from the badly damaged original tomb while still providing them the chance to experience what the tomb looks like.

Out of 63 tombs that have been excavated so far in the Valley of the Kings, only 23 are opened, Khaled Abu El Haggag, chief antiquity inspector at the Valley of the Kings, told the Cairo Post.

“Some tombs have never been opened to public since they were discovered because they are either in a bad state of preservation or their excavation has not been completed yet,” he said.

Tutankhamun’s tomb has been closed since 2012 for restoration purposes, said Abu El Haggag, who added that when the tomb was opened to the public, it had up to 200 visitors per day.

Tutankhamun’s tomb is the only archaeological site to be discovered intact throughout Egypt, tour guide and Egyptologist Hesham Nour told The Cairo Post.

“The tomb is the smallest in the Valley of the Kings, and it is not the best preserved tomb, but due to the magnificent treasures found inside the intact tomb, most of my guests are keen to visit it,” he said.

All the treasures that were found in the tomb, except for the mummy and the coffin, are exhibited in the Egyptian Museum in Cairo, he added.
Un clon español de la tumba de Tutankamón

El estudio español Factum Arte ha elaborado una réplica de la tumba faraónica egipcia para que pueda ser mostrada a los turistas y el original no se deteriore

BELén DELGADO | Luxor | 26/04/2014 17:51 | Actualizado: 26/04/2014 18:16 |

Sin los tesoros que la hicieron célebre pero con la magia que todavía la rodea, la tumba del faraón Tutankamón tiene ya a su lado un doble que, nacido de una avanzada técnica, podría liberarla de turistas para que descansen en paz.

Justo antes de penetrar en el Valle de los Reyes, en la inmensa necrópolis de la antigua Tebas, se halla la casa-museo de Howard Carter, el arqueólogo británico que en 1922 descubrió intacta dicha cámara funeraria. En el terreno contiguo ha surgido un montículo artificial con una entrada a una reconstrucción de la experiencia de Carter.

Es la réplica de la tumba de Tutankamón obra del estudio Factum Arte -con sede en Madrid- que fue obsequiada por la Unión Europea a Egipto en 2012 y que será inaugurada el próximo 30 de abril y abierta al público al día siguiente. Tras pasar largo tiempo almacenada y ante la duda de cuál iba a ser su destino, las autoridades egipcias finalmente aceptaron que la copia se instalara en las proximidades de la ciudad de Luxor, en el sur del país, como se concibió en un inicio.

Esa nueva "hermana gemela" que le ha salido a la histórica tumba -a la que se accede atravesando un pasillo y una antecámara- pretende devolver "el espíritu de la arqueología", comenta a Efe el artista británico Adam Lowe, al mando del proyecto. Unas luces tenues se encienden de ambiguar el lugar, que también comparte con el original factores externos como la humedad o las altas temperaturas.

"Quitar el polvo de las paredes fue increíblemente difícil, entre otras cosas porque la pintura es muy frágil", sostiene Lowe, mientras enumera las dificultades que tuvieron para captar al detalle los elementos de la tumba real antes de reproducirla.

Hace ya cinco años que grabaron en 3D la cámara funeraria, con un único sarcófago en su interior. De esa fotografía se han servido para reflejar de la forma más fiel posible esa herencia cultural en paredes de poliéster con fibra de vidrio a las que han revestido con una especie de "piel" elástica y rugosa.

"Es impresionante la investigación que conlleva" el proceso, con retos como elaborar los materiales o desarrollar la tecnología, afirma a Efe el español Javier Barreno, encargado del montaje. No se salvan de la mitación ni los parches, microbacterias y defectos acumulados desde la creación de la última morada del llamado "faraón niño", de la dinastía XVIII.

Tutankamón murió joven, tras un breve reinado entre 1332 y 1323 a.C. aproximadamente, pero fue el descubrimiento de sus tesoros lo que hizo que se derata una fiebre por la egiptología. Por muy valiosa información que el hallazgo aportara a los investigadores, siempre quedarán otros misterios por resolver, como qué pasó con el denominado "fragmento perdido".

Lowe explica que, durante años, una parte de la pared que fue retirada para sacar los objetos permaneció en la tumba, entre los escombros. De repente ese trozo desapareció y puede que se encuentre guardado en los sótanos del Museo Egipcio de El Cairo, apunta el británico, que detalla que han reconstruido esa pared "extraviada" a partir de una pequeña fotografía en blanco y negro que Harry Burton tomó cuando la quitaron de su lugar.

En ese juego de ideas que surgen de la relación entre lo original y la copia, Lowe se reafirma en la necesidad de "revelar la biografía de esa tumba y hacer que la gente pense que la originalidad es activa" y va cambiando en el tiempo. La puerta que se pierde y reaparece para la réplica es un ejemplo de esa actividad, como también lo son las propias sepulturas faraónicas.

"Las tumbas no fueron concebidas para ser visitadas", su originalidad residía en estar en un lugar cerrado; por eso, cuando se abren al público se está cambiando" su naturaleza, indica el artista. Desde esa óptica, dice, el nuevo proyecto "que ha contado con el apoyo, entre otros, de la Fundación Factum y la asociación suiza Amigos de las Tumbas Reales de Egipto- se nutre de la "tumba más famosa del mundo y el descubrimiento arqueológico mejor documentado" con el fin de "concienciar sobre los problemas de conservación".

El facsímil podrá soportar más de medio millón de visitas al año, según sus autores. Si las autoridades egipcias lo creen conveniente, puede ser una opción para reducir y, llegado el caso, incluso parar la afluencia de turistas a la tumba original, que con más de 3.300 años de antigüedad sufre el desgaste del paso del tiempo y de la curiosidad humana.
It's a dead ringer

Anthony Sattin
gets a sneak peek
at Tutankhamun's
duplication

History is repeating
itself in Luxor. In 1922,
Howard Carter unveiled
the tomb of Tutankhamun to
an invited audience of
diplomats, ministers, celebrities
and press. On Wednesday,
another Englishman, Adam Lowe,
will appear before a similar
crowd of dignitaries to unveil
his replica of the young pharaoh's
burial chamber.

The replica is needed, Lowe
argues, to save the original.

Every tiny detail of the
original, right, has been
faithfully replicated left.

After Tutankhamun was
buried, the high priests sealed
and covered his tomb,
assuming no living person
would ever enter again. They
couldn't have imagined the
phenomenon of modern
cultural tourism. Millennia
later, tens of thousands file
through the tombs in the
Valley of the Kings each year.
It's hot. They sweat, and pant.
Years of that accumulated
humidity and heat, along
with some botched restoration,
has made paint and plaster
blister and left tomb walls
irreversibly damaged.

The spectacular tomb of Seti I has
deteriorated so much, it has
been closed to the public.

Tutankhamun's tomb is not
as impressive, but tales of
treasures and curses ensure it
is one of the most visited,
which makes it particularly
vulnerable. Parts of the
plaster and paint have begun
to crack, putting the
decorated walls at risk.

While the Egyptian government,
needing all the funds it can
generate from tourism, is
loath to take action, many
experts have called for the
tomb to be closed — which
is why the opening of the replica
is so important.

The replica sits in the
grounds of the house
Howard Carter lived in for
90 years ago during his
carvings. Before I saw it,
I was sceptical about its appeal.
I was wrong.

Lowe and the team from his
company, Pactum Arte, have replicated
the burial chamber in minute
detail, with an exactitude
that would have been
impossible even 20 years ago.

Designing bespoke 3D
scanners, writing software,
researching ancient pigments
and spending a great deal of
time (some 400 hours, for
instance, to re-create a single
square yard of wall surface),
they have matched the colour
of paints and plaster, the
routiness of the murals, the
cracks in the white
ceiling, the sandy floor, even
the hue of the modern strip
lighting, so precisely that had
I been blindfolded and
transported from one to the
other, I would not have
known which was which.

The chamber even reproduces
the bumps on the original
surfaces, the cracked paint,
even the black dots of
ancient micro-bacteria that
stipple the walls and ceiling.

"I think texture and
sensation are very
important," he told me.
"I want the tomb chambers
to sound the same, maybe
even smell the same. This
level of authenticity has been
impossible until now." He
also hopes the original tomb
will stay open for a while.

"I want visitors to have the
opportunity to experience
both and to judge for
themselves."

The Tutankhamun replica
is part of a larger project: in
the future, Lowe plans to replicate
the tombs of Tuthmosis III,
Nefertari and Seti I. He
argues that "responsible tourists
will have a role to play in
preserving the Theban
tombs", by choosing not to
visit the originals if replicas
are available. After that, he
has his eyes on further projects,
including the Sistine Chapel
and the Elgin Marbles.

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THE TIMES
König Tut hat eine neue Zukunft

28.4.2014, 05:40 Uhr


Zerfall in 15 Jahren denkbar

Tatsächlich schreitet die Zerstörung der Königsgräber von Luxor, die zu den eindrücklichsten Zeugen einer der grössten Zivilisationen der Menschheit gehören, in erschreckendem Tempo fort. Und es gibt noch keine Technologie, um die schädlichen Einflüsse des Massentourismus – wie Feuchtigkeit, Temperaturschwankungen und Staub – zu verhindern.

Bis zu 1000 Menschen haben in Spitzenzeiten täglich das Tut-Grab besucht, das wie alle Gräber eigentlich nie für Besucher bestimmt war. In zehn bis 15 Jahren könnte es ganz zerfallen. Auch Renovationen haben am einzigen Königsgrab, das unverschämt entdeckt wurde, Spuren hinterlassen, die nicht mehr rückgängig zu machen sind. Tausende von Kunststoff-Einspritzungen haben dazu geführt, dass die Wände nicht mehr atmen können.

Exakte Farb- und Lichtverhältnisse


«Bis zu 1000 Menschen haben in Spitzenzeiten täglich das Tut-Grab besucht, das eigentlich nie für Besucher bestimmt war.»


Neuer Glanz für Seti I


Die nächste Phase kann in Angriff genommen werden, sobald die Finanzierung sichergestellt ist. Dabei geht es vor allem darum, das Know-how an Einheimische zu übertragen, damit sie in der Lage sind, diese Arbeiten in Zukunft in eigener Regie auszuführen. Als erstes soll deshalb ein Trainingszentrum auf der Westbank in Luxor eingerichtet werden. Mit Seti I und Nefertari könnten mit einer Replica zwei Gräber der Öffentlichkeit zugänglich gemacht werden, die seit Jahren geschlossen sind. Von Seti I sind zudem rund 100 Fragmente über die ganze Welt verstreut. Prof. Hornung hat sie aufgespürt. Sie werden nie mehr zurückerhalten, könnten aber gescannt und so in die Replica eingefügt werden, um dieses grosse Grab in seinem alten Glanz wieder erfahrbar zu machen.
La tumba 'gemela' de Tutankamón abre sus puertas en Luxor

Los turistas podrán visitar desde este jueves un facsímil que ha sido elaborado en Madrid. 
La copia busca frenar el deterioro de la tumba original 90 años después de su hallazgo.

Trabajos de instalación de la réplica de la tumba de Tutankamón.

FRANCISCO CARRIÓN > Especial para EL MUNDO > Luxor
Actualizado:30/11/2014 01:01 horas

A unos metros de la carretera que conduce al Valle de los Reyes, en los aledaños de la casa de Howard Carter, despunta una tumba idéntica a las que habitan la necrópolis de la antigua Tebas. Bajo tierra, su interior guarda la réplica de uno de los hallazgos más formidables de la Egiptología: la cámara funeraria de Tutankamón. Fabricado con la exactitud de la micra en un taller madrileño, el oponente abre sus puertas este miércoles para ayudar a curar las heridas que el turismo ha causado en la sepultura original.

"Queremos hacer pensar a los turistas. La tumba original está abierta y no hay ningún plan oficial para cerrarla pero se halla en unas condiciones muy precarias. Se conservó perfectamente durante tres milenios y se ha deteriorado desde su descubrimiento hace 90 años. No fue creada para ser visitada", cuenta a EL MUNDO el británico Adam Lowe, director de Factum Arte, la organización responsable del facsímil que inaugura este miércoles emplazamiento en Luxor un día antes de su apertura definitiva al público.

Después de un año de espera en El Cairo, las tres toneladas de la réplica –la más precisa realizada hasta la fecha– desembarcaron el pasado diciembre en el sur de Egipto. Desde entonces han ido tomando forma en un costado de la casa de Carter, el esfíptico que descubrió en 1922 la tumba del faraón niño (1550 y 1295 a. C.) que subió al trono a los 12 años y murió cuando rondaba los 20. "Veo cosas maravillosas", murmuró el británico cuando el primer haz de luz hizo brillar el oro de los objetos apiñados en su antecámara. Y añadió, en la boca de la tumba, se forjó la leyenda que ahora culpa Lowe.

Protagonista de un relato fugaz e intrascendente, la mayor proezza de Tutankamón fue habitar una vida eterna sin sobresaltos y con un tesoro de 5000 objetos al pié de la tumba. De este modo, los murciélagos del museo, los insectos, los pájaros de la tumba. Después, los murciélagos que nunca volverán a salir de la tumba. Después, los murciélagos que nunca volverán a salir de la tumba.
Los efectos del turismo

Y la procesión ha multiplicado los achiques de la ociedad. Las autoridades han decretado cierres periódicos desde 2011. Según Lowe, las visitas han sometido al lugar a bruscos cambios de humedad y temperatura. "A primera hora la atmósfera es agradable y seca pero al final de la jornada, después de que hayan desfilado 3.000 turistas, es húmeda y caliente", apunta.

La "hermana gemela" limita el corredor que da acceso a la tumba y reconstruye su plano, con la antecámara, la cámara funeraria y la cámara del tesoro en las que apareció el ajuar. Pero no se limita a reproducir el ataúd de cuarzo rojo con sus relieves y jeroglíficos. También reconstruye al milímetro la rugosidad exacta de los muros tal y como lo halló y digitalizado el equipo técnico en 2009. En la copia, las paredes están hechas de poliéster con fibra y revestidas de una capa elástica.

La última tecnología de escaneado 3D y la grabación fotográfica de alta resolución han logrado captar todos los detalles de unos frescos elaborados con pigmentos naturales y malheridos por círculos oscuros causados por los hongos. La réplica un esfuerzo por "revivir la biografía de la tumba", dice Lowe, ha recuperado un fragmento de muro que fue adquirido para extraer el ajuar y que posteriormente se extravió. "Lo hemos reconstruido a partir de una fotografía en blanco y negro que hizo Harry Burton cuando lo extrajeron. Por eso la resolución es distinta al resto", señala el británico.

"Es una experiencia idéntica", recalca el director de un proyecto sufragado por la fundación Factum, la Sociedad de Amigos de las Tumbas Reales de Egipto con sede en Zurich y la Universidad de Basilea. Para pulir la reproducción, se ha "plagiado" incluso el sistema de iluminación usado en la tumba original. La ubicación, a un tiro de piedra del Valle de los Reyes, ha permitido además que la temperatura y la humedad sean similares. La nueva atracción de la orilla occidental de Luxor podrá recibir más de medio millón de visitas al año, indican sus artífices.

“A diferencia de lo que sucede con la cueva de Altamira, que se encuentra cerrada y solo puede visitarse la copia, aquí tenemos la oportunidad de mantener abiertos el facsímil y la tumba original. Los turistas pueden contemplar las dos y reflexionar sobre la experiencia. Propiciar ese debate es una parte central del trabajo que hemos realizado", manifiesta este adalid del turismo sostenible. Su próximo reto es duplicar las tumbas de Seti I y Nefertari, excavadas también en el Valle de los Reyes y cerradas en la actualidad al público. "El Valle de los Reyes nació para ser eterno", apostilla Lowe.
Tutankamón ya tiene dos tumbas en Luxor

La inauguración de la copia facsímil de la sepultura a la entrada del Valle de los Reyes se convierte en una rogativa para la vuelta del turismo a Egipto

La inauguración ayer en Luxor por todo lo alto de la sorprendente copia facsímil de la tumba de Tutankamón provocó escenas dignas de los tiempos del descubrimiento de la de verdad. Por un momento, braceándose entre la sudorosa, expectante e impaciente multitud de autoridades, diplomáticos, arqueólogos, periodistas y curiosos que se habían colado, uno sentía que estaba en 1922 y pugnaba por entrar en el sepulcro recién descubierto por Howard Carter y Lord Carnarvon. Solo faltaban la reina Isabel de Bélgica, Lord Allenby, algunas pamelas, tarbouches rojos, un par de borriquillos y que los soldados de vigilancia llevaran máusers y no metralletas para que la ilusión fuera completa. Incluso pudo verse a un individuo vestido con traje blanco de lino, corbata y panamá que lucía bigote y que parecía el mismísimo fantasma de Carter. La tentación de decirle “¿Mister Carter, supongo?” al facsímil del personaje era irresistible: “Yes, the man himself”, respondió guiñando un ojo. En realidad era un miembro del cuerpo diplomático; el verdadero Carter hubiera rehusado: no le gustaba nada que se perturbara el trabajo en la tumba. La gente, incluidos varios egipcios en galabiyas que contribuían a crear
ambiente (uno invitaba a visitar su tienda de alabastro y a otro le sonó el móvil con la marcha triunfal de Aida), fue entrando en grupos en el pequeño recinto y mostrando un asombro digno del sepulcro original. Alguien preguntó por lo bajo si no se habrá hecho también un facsímil de la maldición...

La nueva tumba de Tutankamón, si se la puede llamar así, no posee nombre oficial, claro (pongamos KV 62 bis), aunque el letrero, en un simpático acto de verismo, lo ha hecho el mismo artesano que confeccionó el de la auténtica (y las otras del Valle de los Reyes). El facsímil no está en el mismo Valle sino en su entrada frente a El Taref y muy adecuadamente a veinte pasos de la antigua casa de Carter, convertida desde hace años en museo y con la que a partir de ahora compone un polo de atracción cultural muy interesante.

Fundida con el paisaje desértico, la tumba –cuyo acto de inauguración oficial incluyó una auténtica rogativa general para la vuelta del turismo- arroja una imagen muy romántica y transpira autenticidad. El acceso es más fácil que en la de verdad (que sigue siendo visitable, lo que invita a comparar ambas); no hay escaleras sino una corta rampa poco empinada que introduce al visitante, a través de un pasillo, en la antecámara. La reja de la entrada es igual que las auténticas del Valle.
El facsímil ha sido creado por la empresa Factum Arte de Madrid, puntera en la realización de copias exactas de grandes obras artísticas, mientras que la construcción arquitectónica en buena parte subterránea que lo acoge la ha realizado el Tarek Waly Center de El Cairo. En realidad, el facsímil, esto es la reproducción milimétricamente idéntica (a la micra), es solo la cámara funeraria de la tumba, con las pinturas y el gran sarcófago de cuarcita rojo. El resto (la entrada, la antecámara, el anexo y la pequeña habitación denominada tesoro) son recreaciones aproximadas para rodear con propiedad al facsímil y se ha hecho un esfuerzo para, por ejemplo, que las paredes tengan un aspecto de picado como el de la piedra de las tumbas del valle, aunque no son de roca. En la antecámara se ha instalado una exposición (con textos de Jaromir Malek y Nicholas Reeves) sobre el hallazgo y la investigación de Carter, y en el anexo un facsímil de la pintura perdida al romper los descubridores la pared para acceder a la cámara funeraria, y una muestra muy elocuente de los daños actuales en la tumba original.
Cuando uno entra en la tumba, si conoce la de verdad, siente una rara sensación de “esto es y no es” y un lógico déjá vu. En la antecámara se echa a faltar la momia de Tutankamón, instalada en una urna acristalada en su tumba desde 2010. “Renunciamos a hacer un facsímil de la momia”, subraya Adam Lowe, director y fundador de Factum Arte, “me parece humillante mostrarlo así a los turista”. Lowe considera que sería un “show freak” y “un crimen” exhibir una copia del cuerpo.
Cuando uno desciende a la cámara funeraria –el sanctasanctórum de la tumba y de su copia- la impresión de realidad es muy intensa aunque, siendo estrictos (o puñeteros), se percibe la ausencia de la digamos pátina de verdad del original. Al golpear suavemente las paredes o el sarcófago te das cuenta de que los materiales son falsos.

La copia de la tumba de Tutankamón se ha instalado en Luxor, y eso fue enfatizado ayer en la inauguración, en la que participaron junto a los responsables de Factum, los ministros de Turismo y de Antigüedades de Egipto (que hicieron votos por la vuelta de los turistas), no sólo como una atracción turística y una virguería tecnológica (que también lo es, ambas cosas) sino como la punta de lanza de un ambicioso proyecto de futuro de “turismo sostenible” y “uso responsable del patrimonio cultural”.

La idea es que la copia proporcione un respiro de momento a la mala tumba original, que se deteriora más rápidamente desde su descubrimiento que en los tres mil años que pasó escondida, al ofrecer una alternativa de visita. En la tesitura actual, las autoridades egipcias no se pueden permitir cerrar la de verdad –como se le escuchó decir a un alto responsable de antigüedades, “los japoneses cancelarían en masa si cerramos Tutankamón”-. No está el horno turístico para bollos. Pero antes o después, como ha pasado con las tumbas de Seti I y Nefertari, esa decisión habrá que tomarla. Y ahí estará la copia.
“Los egipcios construían sus tumbas para la eternidad, pero no para ser visitadas”, señala la paradoja Lowe. El facsímil, resalta, va a ayudar a preservar la tumba de Tutankamón y marca el camino a seguir con las demás tumbas. “¿Visitarías el original a sabiendas de que lo estás dañando irremediablemente?, tenemos una responsabilidad”. Lowe abomina del fetichismo y recalca que hay “muchos niveles de autenticidad”. Recuerda que la copia –al haberse recogido todos los datos del original para hacerla- garantiza además que la memoria de la tumba se va a preservar, esta vez sí para siempre. En realidad, apunta, se pueden hacer ahora todas las
copias de Tutankamón que se quiera.

El facsímil, destaca Lowe, es un regalo de Factum para Egipto, que incluye además la transferencia a los egipcios de tecnología y conocimientos adquiridos en el proyecto para la creación de un centro en Luxor que pueda acometer nuevas copias, empezando por las de las tumbas de Nefertari y Seti I. De hecho, la idea inicial, de 1988 (antes de que entrara Factum en el proyecto), era empezar por escanear la de Seti I y fue por causa de Zahi Hawass que se pasó en 2009 a la idea de replicar la de Tutankamón.

Ayer, tras visitar la sepultura, uno podía refugiarse de los fastos y del calor en la casa de Howard Carter. Al poco de entrar te sorprendía una voz profunda: la auténtica del propio descubridor en un viejo documental en blanco y negro sobre la tumba que se proyecta continuamente en una de las habitaciones y que muestra gente entrando y saliendo del recinto. Un bucle perfecto para reflexionar, en la tierra de la eternidad, sobre originales y copias.
Egypt unveils exact replica of Tutankhamun's tomb made with a 3D printer

The most famous of all Egyptian burial sites, Tutankhamun's tomb, has been replicated with a 3D exact facsimile in a project led by a British artist in order to protect the original site from the ravages of mass tourism.

Adam Lowe's company Factum Arte used digital photography, 3D laser scanning and printers to precisely recreate the murals on the walls of the burial chamber, depicting scenes from the young pharaoh's journey to the afterlife.
The replica tomb was so accurate that some Tutankhamun experts among the Egyptologists and dignitaries burst into tears while attending the opening in Luxor today.

“We are not talking virtual reality, it is a physical reality,” Mr. Lowe told The Independent from Egypt. “To have an emotional response to something you know to be a copy is an extraordinary moment.”

Mr. Lowe said the replica was of crucial importance to the preservation of the original 3,245-year-old burial chamber, which receives up to 1,200 visitors a day in a space 60m square. Factum Arte is working on similar projects to replicate the tombs of Queen Nefertari, regarded as the most beautiful Egyptian burial chamber, and Set I, which is seen by archaeologists as the most important. Both sites are already closed to tourists. These tombs, said Mr. Lowe, “were built to last for eternity but they weren’t built to be visited”.

The Tutankhamun replica is situated outside the entrance of the Valley of the Kings alongside the house of British explorer Howard Carter, who discovered the tomb in 1922. Factum Arte, which is based in Madrid, has worked with the Egyptian architect Tarek Waly to build the limestone replica, using high-resolution digital recording to reproduce the famous murals.

The remarkable five-year project has been filmed for a special documentary for a BBC Travel Show called A New Tomb for Tutankhamun.

The tomb paintings, which contain various scenes including the teenage Pharaoh in the form of Osiris and being greeted by the Goddess Nut ahead of his boat journey into the afterlife, are recreated not as they were at the time of burial but in the time-ravaged form when they were photographed in 2009.

The documentary’s producer Joanne Whalley said the facsimile replicated the cracks and undulations that have emerged during the passage of more than 3,000 years. “The tomb walls of the original are very cracked and undulating so the 3D [process] captured the cracks and dips of the surface,” she said.

The quality of work at the tomb is “astonishing”, said the show’s presenter, Rajan Datar. “When they recorded the information from the original tomb they recorded 100 million points of information per square metre with a laser scanner. That is state-of-the-art stuff.”

He said that the project had a very serious purpose. “This is the future of cultural tourism,” he said. “During the past hundred years many antiquities have been exposed to too much human presence and unless that is restricted they are going to collapse completely. The mindset has to change amongst tourists.”

He predicted that tight restrictions would be introduced on visits to the original Tutankhamun’s tomb.
There are fears in the Egyptian tourist industry that such measures
could damage a sector that has suffered from the country’s recent
political instability.

“There’s nervousness in the short term because tourism to Luxor and
the whole of Egypt is massively down. They want a slowly
introduced policy,” said Datar. “Local guides were worried about
[potential] copies in Japan and America, and whether people would
come to Egypt at all. But this has to happen.”

Mr Lowe said the facsimile tomb was a much needed “good news
story” for Egypt. But he said tourism would return and visitor
numbers to Luxor are expected to double in five years. “The Valley of
the Kings is really at its limit,” he said.

Unlike the original chamber, the replica contains detailed
information for visitors on the “biography” of the site. “The real tomb
is a sacred place and does not allow museum activities,” said Lowe.

Factum Arte’s techniques were previously used to create a facsimile
of Veronese’s *The Wedding at Cana*, plundered from Italy by
Napoleon’s troops in 1797 and hanging in the Louvre. The replica in
Venice has had rave reviews.

“A New Tomb for Tutankhamun: A Travel Show Special” will be
shown on BBC2 on Friday on 7.20am and across the BBC News
Channel this weekend.
Tut’s tomb, take two

A replica of the famous pharaoh’s burial chamber in Egypt could boost the trend for reproductions in sustainable tourism

By Emily Sharpe. Web only
Published online: 30 April 2014

A 3D scanner records the west side of Tut's sarcophagus

A life-size facsimile of the tomb of King Tutankhamun opens to the public in Egypt tomorrow, 1 May. Installed two-meters underground, in a building next to the archaeologist Howard Carter’s house at the entrance of the Valley of the Kings, the project gives a boost to the trend of using precise replicas to promote sustainable tourism at massively popular ancient sites.

See also:
• Inside the pharaoh’s tomb

http://www.theartnewspaper.com/articles/Tuts-tomb-take-two/32566
Although the idea to build a replica of Tut's tomb was first suggested more than 20 years ago, a detailed recording of the site by the Madrid-based workshop Factum Arte—a pioneer in the field of three-dimension scanning and high-resolution photography—only began in 2009. The company has already completed other scanning projects in Egypt, including making a replica of the tomb of Thutmose III for a touring exhibition. As part of the Tut project, a lost “Isis” fragment, known only from a photograph taken by Harry Burton shortly after Carter's discovery of the burial chamber in 1922, was recovered.

With the number of annual visitors to the Valley of the Kings expected to reach 15 million by 2015, replicas could offer a much-needed balance between the demands of tourism and long-term preservation efforts. King Tut's tomb has suffered from the fluctuations in temperature and humidity caused by the vast number of visitors over the years; the daily number of visitors is now restricted to 1,000. And visits to other tombs, including those of Seti I and Queen Nefertari, are strictly limited for conservation reasons.

The public's acceptance of replicas seems to be gaining ground: copies of the painted caves at Lascaux and Altamira have proved popular, with the latter attracting around 500,000 people annually.
Egypt opens replica of King Tut’s tomb

AP, Thursday 1 May 2014

Egypt inaugurated an exact replica of the tomb of King Tutankhamun in the desert valley where many of its ancient pharaohs were buried, aiming to protect the 3,300-year-old original from deterioration caused by visiting tourists.

The facsimile, in an underground chamber not far from the original in the Valley of the Kings, recreates the tomb down to minute detail. Spanish and Swiss experts recreated the elaborate wall murals using a 3D scanning technology. In the middle of the burial chamber stands a rectangular rock setting where in the original King Tut’s sarcophagus and mummy once rested.

In a hall between the burial chamber and an antechamber hang photos and explanations of the discovery of the tomb and its treasures in 1922 by British archaeologist Howard Carter.

Egyptian tourism officials, who unveiled the replica Wednesday alongside foreign dignitaries, are hoping the exhibit will help revive a tourism industry that has been heavily battered by the country’s unrest since the 2011 uprising that toppled autocrat Hosni Mubarak.

A pillar of the Egyptian economy, tourism plunged by more than 30 percent in 2011 and, after slowly building back the following year, was heavily hit again by a wave of violence surrounding the military’s ouster last summer of Islamist President Mohammed Morsi. Tourism officials have said revenues in the first three months of this year fell 43 percent from the same period in 2013, down to around $1.3 billion.

The 18th Dynasty King Tut has long been a major draw of tourists to Egypt — both his tomb in the Valley of the Kings on the western bank of the Nile opposite the southern city of Luxor, and the golden treasures uncovered in it, most of which are now in the Egyptian Museum in Cairo.

But the tomb has suffered from the crowds of tourists descending into it over the years. Tourists’ breath damages the ancient stone and murals, and its walls expand and contract with changing temperatures, causing paint to flake off and opening fractures that dust enters, experts say.

“These tombs were never built to be visited, they were built to last for eternity,” said Adam Lowe, of the Factum
Foundation, a Madrid-based conservation organization that created the facsimile in collaboration with Zurich-based Society of the Friends of the Royal Tombs in Egypt and the Egyptian Tourism and Antiquities ministries.

“They lasted very successfully for 3,300 and in the 90 years since it has been open, it suffered a great deal,” Lowe told The Associated Press. “All of the attempts to try and conserve it create more problems.”

For the time being, the original Tut tomb will remain open, but tourism authorities are aiming to reduce visitors and steer them toward the replica, said Mohammed Osman, vice president of the Chamber of Tourist Companies. Ticket prices for the replica will be 50 Egyptian pounds, around $7, half the price for visiting the original, he said.

Egyptian Antiquities Minister Mohammed Ibrahim and Lowe said facsimiles will also be made of the tombs of the pharaoh Seti I and Nefertari, a wife of the pharaoh Ramses the Great, both currently closed to the general public.

Experts carried out the copying work on the original in 2009 and the building of the replica in Madrid was finished in 2011, but delivery was delayed several times by Egypt’s tumultuous political conditions, Lowe said.

“We are here to celebrate but also to send a message that this area is a wonderful place to visit, and now with this tomb in place, it becomes an even more interesting place to visit for tourists,” James Moran, ambassador of the European Union, said at the opening ceremony. The EU helped in transport of the replica to Egypt.

Osman said he hoped the ceremony — which was attended by 20 ambassadors — will send “a reassuring message that Egypt is safe” and encourage a return of tourists.

http://english.ahram.org.eg/News/100253.aspx
By Eman El-Shenawi | Al Arabiya News
Thursday, 1 May 2014

An exact replica of the most prominent Ancient Egyptian burial site – King Tutankhamun’s tomb – was unveiled on Wednesday, in a move which has seen the future of sustainable cultural tourism springing to life.

The exact 3D facsimile has been placed in an underground chamber not far from the original in the Valley of the Kings, and recreates the 3,245-year-old tomb down to minute details.
The inside of the replica tomb.
(Photo courtesy: the Associated Press)

Over the years, the original 60m square burial chamber which receives up to 1,000 visitors a day has deteriorated and become far more fragile due partly to the exposure to mass tourism. The facsimile of the chamber, discovered 92 years ago by British Archaeologist Howard Carter, will now form the core of a new tourist center.

The move is paving the path for sustainable tourism with the use of facsimiles to protect original sites.

**Fit for a king**

“The tombs of the Theban Necropolis were built by great craftsmen to last for eternity. They were not built to be visited,” Adem Lowe, of the Factum Foundation, a Madrid-based conservation organization that created the facsimile, told Al Arabiya News.

“They cannot withstand the dynamic environment caused by the high visitor numbers that existed in 2010. It is reliably predicted that when stability returns to Egypt the numbers will rise to new heights,” Lowe added.
A visitor reads information on a wall during the opening of an exact replica of the Tomb of Tutankhamun in Luxor, Egypt, Wednesday, April, 30, 2014. (Photo courtesy: the Associated Press)

Tourism - a pillar of the Egyptian economy - plunged by more than 30 percent in 2011 and, after slowly building back the following year, was heavily hit again by violence following the military's ouster of Islamist President Mohammad Mursi last year.

Tourism officials have said revenues in the first three months of this year fell 43 percent from the same period in 2013, down to around $1.3 billion, according to the Associated Press.

"The purpose of the facsimile is twofold," explained Lowe. "One is to provide the data to accurately monitor the rate of decay to the tomb. The second is to show that technology has come of age and when used in the right way it is possible to create a facsimile that looks and feels like the original.

"There is a great sense of wonder in this! We want large numbers of people to come to Luxor and visit both the original and the replica - we want them to use social media and communicate their response with their friends."

Factum designed the replica in collaboration with Zurich-based Society of the Friends of the Royal Tombs in Egypt and the
Egyptian Tourism and Antiquities ministries.

During the unveiling, Egyptologists and dignitaries burst into tears as they saw the replica tomb in all its accuracy.

Inside the burial chamber

Inside the tomb are paintings containing scenes including the young Pharaoh in the form of Osiris and being greeted by the Goddess Nut ahead of his boat journey into the afterlife.

Factum worked with Egyptian architect Tarek Waly to build the limestone replica using digital photography, 3D laser scanning and printers.

The scenes were recreated “not as they were at the time of burial but in the time-ravaged form when they were photographed in 2009,” reported The Independent.

“In Egypt, it has involved the skills of our inspectors on site and the support team. The next phase is to undertake a major transfer of skills and technology to establish a world leading team in Luxor,” Lowe said.

In comments to Al Arabiya News, World-renowned Egyptologist and former antiquities minister Zahi Hawass expressed the importance of the facsimile being an exact copy of King Tut’s burial chamber.

“Many years ago, I had suggested that the replica of the tombs be created as I warned that they would erode in the next 100 years,” he said.

Hawass also warned that any replica sites created should be continuously reviewed by the Supreme Council of Antiquities as facsimiles will soon have a strong educational purpose.

The five-year project has been filmed for a special documentary for a BBC Travel Show called “A New Tomb for Tutankhamun.”

Describing the facsimile, the documentary’s producer Joanne Whalley said: “The tomb walls of the original are very cracked and undulating so the 3D [process] captured the cracks and
clips of the surface."

The quality of work at the tomb is "astonishing," said the show's presenter, Rajan Datar describing the replica as "state-of-the-art."

He said: "When they recorded the information from the original tomb they recorded 100 million points of information per square meter with a laser scanner. That is state-of-the-art stuff.

"This is the future of cultural tourism ... During the past hundred years many antiquities have been exposed to too much human presence and unless that is restricted they are going to collapse completely. The mindset has to change amongst tourists," Datar added.

Similar projects to replicate the tombs of Queen Nefertari, regarded as the most beautiful Egyptian burial chamber, and Seti I, which is seen by archaeologists as the most important are now being worked on by Factum Arte.

Both Queen Nefertari and Seti I sites are already closed to the general public, Lowe said.

Lowe describes the "truly collaborative projects" as "idealistic and trying to make a positive difference."

He wants to send across this message: "We gave the facsimile to the people of Egypt and I want them to come and visit and feel proud to be part of a project that aims to establish sustainable tourism."

Last Update: Thursday, 1 May 2014 KSA 11:03 - GMT 08:03
Egypt inaugurations exact replica of 3,300-year-old King Tut's tomb

BY ASSOCIATED PRESS, POSTMEDIA NEWS  MAY 1, 2014

Foreign diplomats and Egyptologists attend the opening of an exact replica of the Tomb of Tutankhamun in Luxor, Egypt, Wednesday, April 30, 2014. The replica aims to help preserve the original, more than 3,300-year-old tomb from deterioration caused by tourist visitors.

Photograph by: Khalil Hamra/The Associated Press, Postmedia News

By Mariam Rizk

LUXOR, Egypt — Egypt on Wednesday inaugurated an exact replica of the tomb of King Tutankhamun in the desert valley where many of its ancient pharaohs were buried, aiming to protect the 3,300-year-old original from deterioration caused by visiting tourists.

The facsimile, in an underground chamber not far from the original in the Valley of the Kings,
recreates the tomb down to minute detail. Spanish and Swiss experts recreated the elaborate wall murals using a 3D scanning technology. In the middle of the burial chamber stands a rectangular rock setting where in the original King Tut’s sarcophagus and mummy once rested.

In a hall between the burial chamber and an antechamber hang photos and explanations of the discovery of the tomb and its treasures in 1922 by British archaeologist Howard Carter.

Egyptian tourism officials, who unveiled the replica Wednesday alongside foreign dignitaries, are hoping the exhibit will help revive a tourism industry that has been heavily battered by the country’s unrest since the 2011 uprising that toppled autocrat Hosni Mubarak.

A pillar of the Egyptian economy, tourism plunged by more than 30 per cent in 2011 and, after slowly building back the following year, was heavily hit again by a wave of violence surrounding the military’s ouster last summer of Islamist President Mohammed Morsi. Tourism officials have said revenues in the first three months of this year fell 43 per cent from the same period in 2013, down to around $1.3 billion.

The 18th Dynasty King Tut has long been a major draw of tourists to Egypt — both his tomb in the Valley of the Kings on the western bank of the Nile opposite the southern city of Luxor, and the golden treasures uncovered in it, most of which are now in the Egyptian Museum in Cairo.

But the tomb has suffered from the crowds of tourists descending into it over the years. Tourists’ breath damages the ancient stone and murals, and its walls expand and contract with changing temperatures, causing paint to flake off and opening fractures that dust enters, experts say.

“These tombs were never built to be visited, they were built to last for eternity,” said Adam Lowe, of the Factum Foundation, a Madrid-based conservation organization that created the facsimile in collaboration with Zurich-based Society of the Friends of the Royal Tombs in Egypt and the Egyptian Tourism and Antiquities ministries.

“They lasted very successfully for 3,300 and in the 90 years since it has been open, it suffered a great deal,” Lowe told The Associated Press. “All of the attempts to try and conserve it create more problems.”
For the time being, the original Tut tomb will remain open, but tourism authorities are aiming to reduce visitors and steer them toward the replica, said Mohammed Osman, vice-president of the Chamber of Tourist Companies. Ticket prices for the replica will be 50 Egyptian pounds, around $7, half the price for visiting the original, he said.

Egyptian Antiquities Minister Mohammed Ibrahim and Lowe said facsimiles will also be made of the tombs of the pharaoh Seti I and Nefertari, a wife of the pharaoh Ramses the Great, both currently closed to the general public.

Experts carried out the copying work on the original in 2009 and the building of the replica in Madrid was finished in 2011, but delivery was delayed several times by Egypt's tumultuous political conditions, Lowe said.

"We are here to celebrate but also to send a message that this area is a wonderful place to visit, and now with this tomb in place, it becomes an even more interesting place to visit for tourists," James Moran, ambassador of the European Union, said at the opening ceremony. The EU helped in transport of the replica to Egypt.

Osman said he hoped the ceremony — which was attended by 20 ambassadors — will send "a reassuring message that Egypt is safe" and encourage a return of tourists.
Inauguran una réplica de la tumba de Tutankhamón

El incesante deterioro de la tumba original ha propiciado la creación de una réplica, que ha sido instalada a la entrada del Valle de los Reyes, en Luxor

Galería de fotos

La réplica más exacta de la tumba de Tutankhamón realizada hasta la fecha abrió al público el pasado 1 de mayo de 2014. Ha sido instalada en el interior de una construcción subterránea junto a la antigua casa de Howard Carter, a la entrada del Valle de los Reyes, en Luxor. La iniciativa fue sugerida por primera vez en 1988 por la Society of Friends of the Royal Tombs of Egypt y el proyecto ha sido cursado por Factum Arte, con sede en Madrid, que ya realizó una réplica rigurosa de la tumba de Tutmosis III como parte de una exposición itinerante. Mediante un avanzado escáner 3D ha sido posible digitalizar la tumba original de Tutankhamón y crear una réplica de gran exactitud. Se trata de la primera fase de un proyecto de mayor alcance que incluirá la creación de réplicas de las tumbas de Seti I y Nefertari, ambas actualmente cerradas al público.

Turismo positivo y sostenible

Tutankhamón murió joven y su tumba permaneció prácticamente inactiva en el Valle de los Reyes durante más de 3.000 años, hasta que la descubrió Howard Carter en 1922. Su espléndida tumba no fue concebida para ser visitada, sino para permanecer oculta e inviolada durante el paso de los siglos. Desde su descubrimiento ha sufrido un incesante deterioro debido a la que no fue construida para albergar a tan gran número de visitantes. En 2011, el Consejo Supremo de Antigiedades de Egipto anunció que la tumba debía cerrarse por razones de conservación, aunque actualmente permanece abierta al público. La creación de una réplica de la tumba de Tutankhamón responde a la necesidad de promover una idea de turismo positiva y sostenible, especialmente importante para preservar el patrimonio cultural de Egipto para las futuras generaciones. La réplica es un obsequio de Factum Foundation al pueblo de Egipto.
King Tut's Doppelganger Tomb: The Only Thing Missing is the Mummy

BY CHARLENE GUBASH
CAIRO — There doesn't seem to be any curse on this version of King Tut's tomb.

Tourists this week streamed into a long-awaited replica in Egypt that was built to handle visitor demand to view the ancient boy king's ostentatious final resting place.

The exact copy, created by scanning the walls of the original in 2009, was constructed to take pressure off of the original, and includes an identical underground structure and tomb wall surface. The beautiful wall paintings that decorate the burial chamber of the original iconic tomb have taken a toll over the years from the sweat and breath of thousands of tourists.

The hope is that the replica will help preserve the original by enticing visitors with its novelty factor, low ticket prices at about $7, and complete wheelchair accessibility.

There is an added bonus: a visit to the home of Howard Carter, the archaeologist who made one of the greatest discoveries of the 20th century when he entered King Tut's tomb in 1922 and famously described the coruscating brilliance of the interior: “... strange animals, statues, and gold – everywhere the glint of gold.”
Diplomats and Egyptologists attend the opening of an exact replica of Tutankhamun's tomb in Luxor, Egypt, on Wednesday.

Visitors to the replica say they were impressed with what they saw.

"It is different from what I imagined. The replica is absolutely accurate," said Johanna Sigl, an archaeologist from Munich who works with the German Archaeological Institute in Cairo. "The walls, up to the chiseling marks, are very good."

Missing is Tut's blackened mummy, which is enclosed in a protective
glass case in the original.

Technology used to record the original tomb’s wall paintings archived the original artwork at the highest resolution ever, with 100 million independently measured 3-D points per square meter.

Adam Lowe, a director of Factum Arte and artist who was involved in the use of the new technology, has replicated the original with the help of his team and specially designed 3-D scanners.

“Technology has now come of age and is playing a central part in preserving the past. We are using new recording systems to monitor the decay of the originals,” said Lowe. He said he has noticed that some of the original tomb paintings have dimmed even since his team took the scans in 2009.
Factum Arte director Adam Lowe speaks to the media during the inauguration of the replica tomb.

The technology has taken a “quantum jump,” said Lowe, from 2001 when a cave of the first Paleolithic painting was replicated in Spain.

"The reason the tomb looks and feels the same from a normal viewing distance is the exact recreation of surface and color," Lowe said.

The J. Paul Getty Institute is at work restoring the walls of the real Tutankhamun’s tomb, and Lowe felt it needed to be scanned before
the restoration. “The whole point is that it must be done before conservation because you need data to know what is there before it is changed by conservation,” Lowe said.

The reproduction may be too accurate for some.

“I thought it was extremely interesting,” said tourist Elizabeth Smith, from Portsmouth, England. She said she had been to Luxor before, but wanted to visit the newly opened replica and Howard Carter’s home. "But it felt like a replica. It was too clinical."
King Tut’s new dwelling may be in good company soon. Once funding is available, Factum Arte is planning to recreate two other spectacular tombs currently closed to the general public: Nefertari’s tomb and the tomb of King Seti I. Both would also be constructed on the grounds of

http://www.nbcnews.com/science/science-news/king-tuts-doppelganger-tomb-only-thing-missing-mummy-n94736
Carter’s museum.

Lowe’s team would create a center for scanning that could be used to train Egyptians to inventory antiquities for documentation. “Once they are trained, it could be a vital tool for them throughout the country,” said archaeologist Nigel Hetherington.

The Valley of the King’s newest arrival may breathe a bit of life into Egypt’s sputtering tourist industry while helping to preserve the ancient artistry that keeps people coming. At the official opening, Antiquities Minister Mohamed Ibrahim said he hoped the replica will stimulate tourism and lead the way to protecting other tombs.

"If this idea succeeds we will expand it to other tombs facing damage to preserve them," Ibrahim said.

First published May 1st 2014, 5:00 pm

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CHARLENE GUBASH

Charlene Gubash is an NBC News producer based in Cairo. Gubash, a native Minnesotan, has lived and worked in the Egyptian capital since 1985.
Une nouvelle tombe pour Toutankhamon

Le fac-similé de la chambre funéraire du célèbre pharaon va ouvrir à proximité du site d'origine, près de Louxor. Une copie parfaite réalisée avec des techniques de pointe.

Par Bernadette Amaud

Sous le regard solaire de RA brillant de tout son éclat, voici la chambre funéraire de Toutankhamon et son sarcophage en quartzite rouge. Ou presque... En réalité, sa réplique parfaite, dont l'inauguration doit avoir lieu le 30 avril à Louxor, en Égypte. Ce fac-similé de la sépulture du jeune pharaon (vers 1332-1323 avant J.-C) a été installé non loin de son modèle original vieux de 3350 ans, qu'on pourrait aussi continuer à visiter. Si le duplicata réalisé par la société Factum Arte, avec à sa tête le très énergique artiste britannique Adam Lowe, a été achevé fin 2010, son ouverture, en revanche, a dû être reportée plusieurs fois depuis la révolution égyptienne de 2011. À l'origine, la réplique avait pour but de préserver le site original. Les peintures des quatre murs de la chambre funéraire, l'unique pièce décorée du tombeau, ne pouvaient plus supporter l'humidité produite par les exhalaisons des milliers de visiteurs. Plénuant à huit mètres sous terre dans un espace confiné de quelques mètres carrés, les touristes transformaient rapidement les lieux en serre tropicale, et les fresques se dégradent inexorablement. L'idée a donc germé de créer un fac-similé. « Nous avons débuté les photographies et les relevés en 3D de la tombe en 2009, en utilisant un scanner laser à très haute résolution que nous avons spécialement conçu pour parfaitement reproduire la texture des murs, et la couleur des peintures à l'intérieur des tombeaux », explique Adam Lowe.

Pendant plusieurs mois d'un travail rigoureux, les ingénieurs de la société Factum Arte, spécialisée dans la copie d'œuvres d'art, ont ainsi relevé des millions de données. Il leur a souvent fallu battre le grond sarcophage du pharaon, situé en plein centre de la chambre funéraire, leur laissait peu de recul pour le placement du laser. Une fois toutes les informations recueillies, c'est dans les
Le fac-similé de la chambre funéraire de la tombe de Toutankhamon. Au centre, le sarcophage et ses déesses ailées. Le coffre a été réalisé à base de polyuréthane, et le couvercle avec de la sélénite (poussière de gypse très fine) qui imite le granite, une technique connue sous le nom de scagliola.

immenses ateliers de Factum Arte situés dans la bonlieue de Madrid (Espagne), qu’a été restitué l’ensemble du fac-similé. Toutes les données numériques recueillies en Égypte ont d’abord été utilisées pour recréer, au micro-mètre près, la surface rugueuse des parois de la chambre funéraire, fraîchement dans des panneaux de résine de polyuréthane. Sur ce support reconstitué a ensuite été appliquée une peau souple élastique à base d’acrylique sur laquelle avaient été transférées les reproductions en haute résolution des peintures de la tombe à l’aide d’une imprimerie numérique à jet d’encre à plat, offrant un résultat saisissant de réalisme. Lancé en 2008 sous les auspices du Conseil supérieur des antiquités égyptiennes (CSA), en collaboration avec l’université de Bâle (Suisse) et la Société des amis des tombes royales d’Égypte (Zurich, Suisse), le projet comportait à l’origine trois fac-similés de tombes (Toutankhamon, Séti Ier et Néfertari). Mais les événements politiques en ont pour l’instant décidé autrement. Cette première reproduction fidèle, offerte à l’Égypte par l’Union européenne, devrait rester à Louxor jusqu’à l’ouverture du Grand Musée égyptien à Gizeh, près du Caire, où elle pourrait être transférée plus tard.
Tests de colorimétrie sur un panneau reproduit par l'imprimante numérique à jet d'encre à plat. La couleur et la tonalité peuvent être contrôlées et modifiées localement pour assurer une restitution parfaite.

Plus de 150 échantillons des différentes couleurs agissant la tombe ont été reproduits sur des bandes de papier afin de s'assurer de l'exactitude des teintes lors des restitutions.

Sur cette peau souple ont été reportés précisément toutes les peintures et les détails les plus infimes du relief des parois.

Premier assemblage des panneaux peints dans les ateliers de Factum Arte, à Madrid. La paroi de droite (mur nord) représente Osiris coffé de la couronne Atef (en blanc) accueillant Toutankhamon accompagné de son ka, double spirituel qui survit à la mort.
Une découverte royale

C'était il y a plus de quatre-vingt-dix ans, le 4 novembre 1922, l'egyptologue et archéologue britannique Howard Carter (1874-1939) découvrait dans la Vallée des Rois, près de Thèbes, les premières marches d'une entrée conduisant à une tombe inondée. Celle de Toutankhamon, un jeune pharaon de la XVIIIe dynastie (Nouvel Empire). Après avoir attendu l'arrivée de lord Carnarvon jusqu'au 23 novembre, il franchit en sa compagnie la première porte le 25 novembre, mais la découverte ne sera officiellement annoncée qu'à partir du 29, révélant l'existence d'un tombeau égyptien au trésor incroyable. Des centaines de curieux se dirigeront dès lors vers Louxor pour assister aux fouilles. Outre la nomie royale, 2099 objets ont été extraits de la tombe en près de dix ans. Ils sont tous exposés au Caire.

Howard Carter et lord Carnarvon au moment de la découverte, en novembre 1922.

Cette partie du mur sud — détruite pour accéder à la chambre funéraire en 1923 — a pu être reconstituée et remplacée précisément dans le fac-similé, grâce aux photos réalisées en 1922 par l'égypologue britannique Harry Burton.
Egypt inaugurates exact replica of King Tut's tomb in desert valley

Friday, May 2, 2014
By Mariam Rizk, AP

LU–OR, Egypt -- Egypt on Wednesday inaugurated an exact replica of the tomb of King Tutankhamun in the desert valley where many of its ancient pharaohs were buried, aiming to protect the 3,300-year-old original from deterioration caused by visiting tourists.

The facsimile, in an underground chamber not far from the original in the Valley of the Kings, recreates the tomb down to minute detail. Spanish and Swiss experts recreated the elaborate wall murals using a 3D scanning technology. In the middle of the burial chamber stands a rectangular rock setting where in the original King Tut's sarcophagus and mummy once rested.

In a hall between the burial chamber and an antechamber hang photos and explanations of the discovery of the tomb and its treasures in 1922 by British archaeologist Howard Carter.

Egyptian tourism officials, who unveiled the replica Wednesday alongside foreign dignitaries, are hoping the exhibit will help revive a tourism industry that has been heavily battered by the country's unrest since the 2011 uprising that toppled autocrat Hosni Mubarak.

A pillar of the Egyptian economy, tourism plunged by more than 30 percent in 2011 and, after slowly building up the following year, was heavily hit again by a wave of violence surrounding the military's ouster last summer of Islamist President Mohammed Morsi. Tourism officials
have said revenues in the first three months of this year fell 43 percent from the same period in 2013, down to around US$1.3 billion.

The 18th Dynasty King Tut has long been a major draw of tourists to Egypt — both his tomb in the Valley of the Kings on the western bank of the Nile opposite the southern city of Luxor, and the golden treasures uncovered in it, most of which are now in the Egyptian Museum in Cairo.

But the tomb has suffered from the crowds of tourists descending into it over the years. Tourists' breath damages the ancient stone and murals, and its walls expand and contract with changing temperatures, causing paint to flake off and opening fractures that dust enters, experts say.

"These tombs were never built to be visited, they were built to last for eternity," said Adam Lowe, of the Factum Foundation, a Madrid-based conservation organization that created the facsimile in collaboration with Zurich-based Society of the Friends of the Royal Tombs in Egypt and the Egyptian Tourism and Antiquities ministries.

"They lasted very successfully for 3,300 and in the 90 years since it has been open, it suffered a great deal," Lowe told The Associated Press. “All of the attempts to try and conserve it create more problems.”

For the time being, the original Tut tomb will remain open, but tourism authorities are aiming to reduce visitors and steer them toward the replica, said Mohammed Osman, vice president of the Chamber of Tourist Companies. Ticket prices for the replica will be 50 Egyptian pounds, around US$7, half the price for visiting the original, he said.

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King Tut replica tomb opens to public in Egypt

By Barry Neild, CNN
May 2, 2014 -- Updated 1709 GMT (0109 HKT)

(CNN) -- It's not quite the Mummy Returns -- more like an attempt to stop the Mummy disappearing in the first place.

Archeological experts have built an exact, full-sized replica of King Tutankhamun's tomb in Egypt, recreating every tiny detail to save the original from being destroyed by visitors.

The replica tomb opened this week near the southern Egyptian city of Luxor, where tourists flock to see the ancient Valley of the Kings complex that houses the young pharaoh's actual resting place.

Laser scanners and high definition printers were used to recreate the precise textures and colors of wall murals depicting the afterlife.

King Tutankhamun's original tomb, built following the 19-year-old ruler's death in 1327 B.C., was discovered almost intact by archaeologist Howard Carter in 1922.

Great fakes: Top tourism replicas

But decades of tourism have taken their toll.

Moisture from the breath of visitors has damaged the murals and walls, while temperature fluctuations have caused paint to flake off and cracks to expand.

Journey into the afterlife

Luckily, dampness isn't an issue in the new tomb -- some Egyptologists attending an official inauguration reportedly burst into tears when they saw how accurate it was.

The facsimile tomb recreates the paintings -- which depict the young pharaoh's journey into the afterlife -- in their existing damaged form from images taken in 2009.

Carved masonry inside the structure, including the sarcophagus in the middle of the burial chamber that once contained King Tut's mummy, have been recreated using resin.

Both the tombs are currently open to the public, but the plan is eventually to close the original to allow for conservation work.

And, no doubt, offer some peace and quiet to Tutankhamun, whose remains are still there, protected by a glass case.

Social and political turmoil

The new tomb also help safeguard one of the Egypt's key attractions at a time when social and political turmoil is wreaking heavy damage on its tourism industry, pushing takings down by 43% according to some reports.
Egypt unveils massive restored statues

"Our heritage is something that gives Egypt its unique identity; preserving it through such projects is vitally important," said Omayma El Husseini, a spokesman for Egypt's tourism board.

"They also ensure visitors have the opportunity to experience pharaonic sites of significance, allowing them to stay for longer periods to fully appreciate the importance and relevance of such projects."

The $690,000 replica is the work of Factum Arte, a Madrid-based conservation team also engaged in similar projects to recreate the important tombs of Queen Nefertari and Seti I.

"This remarkable project is a fine example of how new technology can preserve and indeed promote Egypt's rich archaeological heritage," James Moran, the European Union's ambassador to Egypt, said at the ceremony to open the new tomb.

"It should also help to revive much needed tourism in the unique area of Luxor, something that is badly needed for the development of Upper Egypt."

Undressing mummies

Can I tell the difference? wonders Tina Chapman, a teacher from Birmingham, standing in the latest tomb to be opened to the public at southern Egypt’s Valley of the Kings.

Chapman’s answer could be a pointer to the future of mass tourism. For the tomb in which she stands is a replica: an exact copy of the tomb of Tutankhamun, dug into the sand about a mile from the original. And Tina Chapman, who has visited pharaonic remains in Egypt since she was a child, was more than a bit taken aback.

“No, I don’t think I can,” she says finally after a moment’s thought. “It is rather like seeing the real one.”

Chapman is not alone in her view. From the day the tomb was opened, critics of the replica have sounded a note of caution.

“Tut’s replica will provide as much detail and accuracy as the original,” insists Ian Black of the Independent, whose 1992 report on Tutankhamun was “the most detailed copy ever made.”

Black feels that it’s possible to create an exact copy that looks realistic and can serve to educate future generations.

“Let us be at the forefront of the process,” says Lowe. “We want to be at the forefront of the process.”

The hope is that Tut’s replica will allow a new generation of tourists to experience the tomb without damaging the original.

“I don’t think it’s possible to create an exact copy that looks realistic,” says Lowe. “It is about bringing attention to the tomb and preserving it, and lead to copies of the tomb that are a genuine replica.”

The replica will also provide an opportunity for future researchers to study the tomb and its contents.

“Once we’ve seen the [real] tomb change,” says Lowe, “we’ll put up glass screens, so the experience of seeing the tomb will be tampered with, but it’s not something that actually feels like the tomb.”

In the replica, there will be no precious artefacts, but instead there would be a new access to tombs such as Tutankhamun's. The reality is that these delicate burial chambers, which have been vandalised or decimated for decades, are at risk of deterioration beyond recognition.

“Maybe in 3,000 years’ time,” says Lowe. “It’s about keeping things back.”

The replica is not about taking things away,” says Lowe. “It is about keeping things back.”

The replica will not be the first attempt to recreate an ancient tomb. In 1907, Howard Carter was moved to tears when he visited the tomb of King Tutankhamun, which had been dismantled and sealed since the tomb was first opened.

“Tut’s replica contains a series of panels explaining the significance of the real thing,” says Lowe. “It is one of several aspects that excite the seasoned Egyptologist Salima Ikram. “It was like going into the original,” she says, “but with everything better explained.”

In the replica, there will be unrestricted access to Tutankhamun’s tomb. But in the replica, there will be a sign that says “This is a replica, not the original.”

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The replica was a way of creating a machine that can make details as precise as a third of a millimetre. The plan is to train a team of Egyptians to make copies of the tomb.

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The social media campaign in support of David of Nahal – as he has been dubbed, referring to his brigade – follows the publication online of Sunday Night’s Shabir on the incident. The soldier was accused of, and jailed for 20 days.

It is important that we remember and preserve the tomb, says Lowe. “It is about bringing attention to the tomb and preserving it, and lead to copies of the tomb that are a genuine replica.”

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Two of Egypt’s most famous ancient tombs, sealed off from the public’s gaze for decades, will soon be attracting visitors again. The 3,200-year-old tomb of Seti I, considered one of the most important sites in the Valley of the Kings, has been closed since the 1980s after years of tourism left it irreparably damaged.

The nearby vault of Ramses II’s wife, Nefertari, which is known as the “Sistine Chapel of Egypt” due to the astonishing intricacy of its murals, has been unseen for more than half a century.

The original chambers are too valuable to be put at risk once again, but in an exciting initiative, facsimiles of the pharaonic treasures are to be meticulously “rematerialised” by a Madrid-based company.

The project follows the successful opening in Luxor of an exact copy of King Tutankhamun’s burial chamber. Factum Arte spent five years replicating the tomb, discovered by the British archaeologist Howard Carter in 1922.

The £420,000 facsimile has revolutionised methods of preserving and documenting precious archeological sites while pointing to a radically different future for cultural tourism.

The reconstruction, which is installed in an underground chamber by Carter’s house on Luxor’s West Bank, is eerily similar to the real vault. “I have seen the original more than 200 times and this replica is astonishing,” said Salah Bauommi, a Luxor tour guide and Egyptologist, adding that even the lighting and smell were the same.

The only criticism made by holidaymakers was that the magic of breathing the tomb’s atmosphere first hand could not be digitally replicated. “Otherwise you don’t see the difference. It’s exactly the same,” Caroline Jones, 34, a teacher from Lyons, said.

The team, led by Adam Lowe, a British artist, have meticulously captured the beauty of the relief that depicts the 19-year-old pharaoh in the underworld, as well as the poekmarks, botched reconstructive paint jobs and cracks in the tomb’s ceiling. They have even mimicked the worn walls of the viewing platform, where visitors’ sleeves have polished the limestone.

The original vault contains Tutankhamun’s mummified body and is reached by a tunnel, which was omitted from the facsimile to ease disabled access. A gallery highlighting the damage to the murals has been added. Otherwise it is impossible to tell the two apart.

Using 3D scanners and high-resolution photography, Factum Arte began in 2009 to record the surface of the walls and the sarcophagus lid at high resolution.

The data was used to mould a resin panel. The photographs were then printed on to stretchable membrane and vacuum packed on to the panels. The results is an exact copy “down to the dust that covers the walls,” Mr Lowe said.

The data is so accurate that Egyptologists, hampered by the protective barricades in the original tombs, are now studying it.

The replicas are expected to boost tourism in Luxor, which has been the hardest hit by the political turbulence of recent years. The numbers of visitors to the Valley of the Kings has plummeted from 11,000 a day to just over a hundred. “What we need is good news like this,” Hisham Zazou, Egypt’s tourism minister, said.

The real tomb is still open for the time being. Entry costs about £8.50 while the replica is currently free. The aim is to allow visitors to compare the two and learn about the damage to the real tomb, the team said.

Factum Arte is planning to replicate many more tombs in the future and is building an on-site training centre for Egyptians to pass on the skills.

“Egypt’s future is dependent on its past. If the tombs are destroyed by tourism people won’t be visiting Luxor,” said Mr Lowe. “We have to think in terms of thousands of years — just like the pharoanic craftsmen did.”
CÓRDOBA / EL PULSO DEL PLANETA

Tutankamón tiene clon

PAULA ROSAS / CORRESPONSAL EN EL CAIRO
Día 06/05/2014

Hoy abre sus puertas al público la réplica de la tumba del faraón egipcio. El facsímil, hecho en España, reproduce todos los detalles del original.

Si el joven faraón Tutankamón regresara desde su viaje al Más Allá, probablemente no sabría encontrar las diferencias entre la tumba en la que descansó, solitario, 3.300 años hasta que el británico Howard Carter llegó a molestarlo, y la réplica que hoy abre sus puertas al público a unos cientos de metros de su última morada. Estupefecto, parpadearía con sus pequeños ojos momificados hasta despertar del espejismo, quizás al dar unos golpecitos en las paredes del sepulcro y comprobar que no estaba tocando el estuco bellamente decorado, sino —sin él saberlo, claro está— poliéster con fibra de vidrio. Nadie le regañaría por tocar. La réplica está para eso.

Instalada a la entrada del valle de los Reyes, en Luxor, junto a la casa del descubridor de la original, la tumba española del faraón más popular del Antiguo Egipto, fabricada por Factum Arte en Madrid, ayudará a conservar uno de los sepulcros más visitados —y que más rápidamente se han deteriorado— de la vasta necrópolis de Tebas. El facsímil, inaugurado ayer, reproduce al milímetro todos los detalles de la tumba, el relieve de sus paredes, la tonalidad exacta de sus colores, incluso el polvo acumulado en la original a lo largo de los años y las microbacterias que, alimentadas por la respiración y el sudor de los turistas, han montado un festín en las paredes del original.
Aunque no ha sido descuidada, las tumbas nunca fueron ideadas para acoger a visitantes, recordaba el artista Adam Lowe, a cargo de un proyecto que acaba de comenzar. Factum Arte trabaja ya en la elaboración de dos nuevas réplicas, las de las tumbas de Nefertari y Seti I, que se encuentran cerradas al público, y para las que se utilizará la última tecnología de escáneres láser en 3D.

La elección de la casa de Carter, restaurada recientemente, para su instalación no ha sido fortuita. La historia de Tutankamón estará para siempre ligada a la del arqueólogo que en 1922 rompía el sello intacto del sepulcro y veía «cosas maravillosas». Pero también se han tenido en cuenta motivos prácticos. Después de estudiar el terreno, «comprobamos que era un lugar seguro —uno de los pocos— para instalar el facsímil, que no nos íbamos a encontrar otra tumba debajo», explica a ABC Nigel Hetherington, que ha colaborado con el proyecto. Por 50 libras, algo más de 5 euros, los visitantes podrán contemplar la casa-museo de Carter y la réplica, que ha sido alojada bajo tierra, y en la que se ha copiado el acceso e incluso el sistema de iluminación de la original.

Siguiendo la filosofía conservacionista que se aplicó en las cuevas de Altamira, el clon podría ayudar a descargar de turistas la tumba verdadera en un futuro si el Gobierno egipcio así lo deseara. Por el momento, la tumba original estará abierta «para que los visitantes puedan comparar las dos», asegura Hetherington. En septiembre, no obstante, el sepulcro en el que descansa Tutankamón cerrará durante un tiempo para que un equipo del Getty Conservation Institute estudie las condiciones de conservación en las que se encuentra. La réplica permitirá a los turistas seguir soñando con el faraón que, en su muerte, consiguió despertar la magia del Antiguo Egipto.
Una tumba «made in Spain» para Tutankamón

PAULA ROSAS / CORRESPONSALE EN EL CAIRO
Día 05/05/2014 - 10.09h

Abre al público en el Valle de los Reyes la réplica de la tumba del faraón egipcio. Hecha en Madrid, reproduce todos los detalles de la original.

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En la casa de Howard Carter

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