# MICHAEL TAKEO MAGRUDER

(RE)MEDIATION\_S 2000-2010

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# AKEO MAGRUDER

# N\_S

<u> 2000 - 2010</u>

CURATOR

ON TO HYBRIDITY

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ND ACKNOWLEDGEMENTS

## FOREWORD

It is often the case with contemporary curators that they have no collections to work with or objects and artworks to look after. Instead, they manage relationships, brokering partnerships between artists, arts organisations and funders. The role of the contemporary curator is frequently that of a creative partner who collaborates with artists to bring their ideas into the physical world, and the realisation of this monograph covering a decade of Michael Takeo Magruder's work has certainly been characterised by this approach.

Our curator/artist relationship began as a series of conversations regarding society's obsession with information networks, portable devices and visualisation platforms. Discussions about what was the best Web 2.0 service, smart phone or 3D rendering engine were soon replaced by more creative and theoretical considerations. Given the ever-shifting technological landscape, what artistic potentials could such emerging systems and infrastructures engender, and how could these technologies both inform and transform the experiences of artists, curators and visitors within traditional white cube and black box gallery spaces? Would there also be ways to engage simultaneously with new, diverse audiences by developing artistic projects that used the same digital devices, architectures and environments as mechanisms to connect in different ways with the public domain?

Over the following years, these questions began to coalesce into clear exhibition concepts reflecting on topics ranging from knowledge and memory to remediation and embodiment within our networked, data-driven age. Such ideas would be explored through projects focusing on both the singular and the collective experience. The individual's vantage point would be examined through personal computers and mobile phones – our devices of choice for capturing, remixing and distributing fragments of our lives – while the collective perspective would be considered through a creative analysis of online networks and shared virtual spaces possessing the ability to shape mass consciousness on a global scale.

Individuals and societies alike have always used the technologies of their time to collect stories and record histories – who we are, what we are doing, where we have been and how we wish to be remembered after we are gone. The digital storage and network industries now make it possible for these processes to occur at all times and in almost all places. Online databases, content repositories, social networks and virtual environments have never been more commonplace, and their integration into both our day-to-day lives and general consumer culture has undoubtedly changed the ways in which we undertake even the most routine activities. Through the phones in our pockets to the ubiquitous screens around us, we connect to our wider, media-rich world. In this age, our digitised information (and the memories stored within it) can last forever. Although in reality such material is often transient, either succumbing to the deluge of modern data-flow or becoming inaccessible due to deficiencies in current digital preservation strategies.

Mitigating such factors of impermanence, the artworks represented in this book are often not wholly digital in nature. Pixels, polygons and code are unapologetically augmented with analogue materials ranging from canvas and paper to metal and glass. Images algorithmically generated on mobile phones and virtual machines are translated into concrete forms; live data-streams and archived data-sets are rendered into tangible objects and experiences rooted in physical space. Immersive visualisation systems and computer-based constructions reside amongst equally complex arrangements of large-format canvases and site-specific wall prints. Painting, sculpture, print, photography, video and installation are all represented in new hybrid configurations made possible through the judicious and effective use of digital media.

It is in this blended territory that Takeo reshapes data and relocates its structures from the digital realm into our physical world. In his transformative process of art making, the ephemeral variables that often comprise the core of his practice are the numerous connections and interactions which exist between the artworks and their audiences. Having witnessed the development of his projects first-hand and experienced the artistic outcomes over many years, it is clear that the technological frameworks underpinning his creations are refreshingly transparent to the viewer. We can approach his impressive body of work armed with an intuitive glossary of personal and cultural associations that arise from our own encounters with, and relationships to, the digital tools and materials he employs. His artworks not only reference current trends and discourses within contemporary art practice, but more importantly, speak to our common interests and concerns surrounding the technologies that have become so ingrained within our lives. Familiar devices are deconstructed and reassembled into distinctly unconventional formats that are as conceptually provocative and socially relevant as they are aesthetically pleasing.

Takeo's translation of digitally-aligned ideas and situations into visceral forms and accessible experiences allows us personally to engage with and reflect on his complex subjects in our own time and on our own terms. Even without comprehensive knowledge of the explicit contexts and mechanisms contained within his works, we can easily follow the trajectory of his over-arching narrative as it picks up and weaves together threads drawn from a wide base of cultural theories, technologies and aesthetics. As Takeo shifts through loosely-defined bodies of artwork associated with news media, mobile devices and virtual worlds, he consistently allows us to observe the pervasive and seemingly opaque structures of the Information Age in ways that encourage us to reconsider (or reaffirm) our thoughts and positions about them. It is an ongoing, immensely rewarding dialogue that both challenges and inspires us to view Art – and what it can be – differently, and with this in mind, I very much look forward to continuing our conversations.

BY PATRICK LICHTY

For the last ten years – from data as codes to worlds made of data – Michael Takeo Magruder has examined and critiqued the digital systems and ubiquitous networks of our time. His artworks range from data-based paintings and technological sculptures to *net-art* projects and virtual/physical installations alluding to architectures and religious spaces from ages past. Takeo's arc of expression is catalogued through a journey from abstractions of pure data, to layered recontextualisations of live information, and then to articulating such elements as embodied dataspaces through the use of virtual realms and mixed-reality constructs. During this progression, a shift towards representation becomes apparent, and initial works hovering at the border of legibility become superseded by creations that adopt more affective approaches. From this point, Takeo considers multiple connotations of 'perspective', bridging everyday physical existence and sublime virtual environments though social interactions that connect our 'worlds', 'lives' and 'realities'. His *oeuvre* unifies elements that unfold from the deconstructive allusion to code, the humane and the transcendent, accomplished through the use of digital image, human interaction and liminal space. This is why dissecting Takeo's artistic path – beginning with a structural consideration of form and then reflecting on concept – is the most appropriate means to analyse the 'ghosts' within his machines.

#### <u>Deconstruction</u>

Jacques Derrida's concept of *deconstruction* – an adaptation of the Heideggerian notion of *destruktion* – unravels the project of ontology in order to expose the primordial dimensions of *being*. Through this device Derrida creates 'close readings' of the discursive frameworks in which subjects have become enmeshed. In the case of data, Takeo's core medium, deconstruction of field degrades visual or textual elements to the point where data-as-subject becomes representationally indistinct. Within screen-based media, meaning 'flickers' as it translates across various layers of hardware and software in the computer. His data, in the dual aspects of its image and signification breaks down to the edge of illegibility.

Takeo uses deconstruction as an abstracting force to create works consisting of data stripped from its context. In early digital print/video compositions such as text abstraction and ¿ikon? (2000), and net-art pieces like [transmission] and Co~dec (2003), phenomenology of colour-saturated data fields shows the aesthetic of raw information that has been pared to the purely visual. Data collides with abstract beauty as if we could apply Clement Greenberg's ideas of minimalist formalism to data itself. Instead of cybernetic versions of Rothko or Kelly's fields of colour, the results are series of abstractions that reveal the intricacies of data's expressionistic 'landscape'. In many ways, this work precedes the 2010's 'glitch' aesthetics of artists who corrupt the data of digital files in order to create artworks which retain pictorial elements of their source media. In the case of Takeo, this data-minimalist deconstruction involves manipulating the data sources without instigating or implying their corruption.

**Opacity of the Code** (Takeo/Lichty, 2004) is one example of this pre-glitch data aesthetic. In the work, strings of text were converted to barcode images and then animated in order to illustrate the illegibility of codified systems. However, instead of appearing as a wholly abstract field of digital noise, a precise band of unchanging data emerged in the first quadrant of the images, illustrating a consistency in the encoding algorithm. Although the band of data is a purely formal aspect of the piece and is consistent with Takeo's previous explorations of information aesthetics, it begins to lay the groundwork of (re)placing meaning into the data field. While the pattern contextualises nothing other than consistencies within its own encoding scheme, it alludes to overlaying information as context within the artist's subsequent phases of work.

#### <u>Reconstruction</u>

While earlier compositions deconstruct the data-as-subject into abstract visual fields, Takeo's artwork from 2004 onwards becomes more representationally complex. This signals a reconstructionary impulse after a period of radical deconstruction *vis-à-vis* the reintroduction of representation into the abstracted field of aestheticised data. The transition begins in his digitally-minimal (low-resolution) compositions constructed from mobile phone data. Works such as *Encoded (love)* (2004) – a large format digital wall print and MMS phone image appearing to be the portrait of a young woman – introduce representation to the pure formalism of data while retaining its pixel-based structure. This affective dichotomy between data/ real and human(e)/digital creates tension in the work. From an epistemological standpoint, the subject has been deconstructed and is following a path back to artistic recontextualisation, passing through (re) presentation and aestheticisation. *Encoded (love)* represents a coalescing of the subject back into the data field as something more than a primary, self-referential pattern, as it now also possesses a secondary representational structure.

With his subsequent work **Re\_collection** (2005), Takeo moves further from the aesthetics of data as abstract medium to that of dreamlike (computer) memory as metaphor. The composition consists of a parkland scene with a small childlike figure running towards the image frame. Is there an importance to the pixelisation in the haze of Takeo's blurred video as the child in the landscape seeks to embrace the (parent) viewer? The scene is reminiscent of dream sequences in science fiction films like *Brainstorm*, *Strange Days* and *Johnny Mnemonic* in which the human(e) is introduced into the data field, leaving the fingerprint of experience while keeping the subject immersed in the idea of data. While the human form in *Re\_collection* appears as a defined figure in a landscape, the gauzy memory remains firmly rooted within the computer architecture.

Artworks like *Encoded (love)* and *Re\_collection* begin a dialogue about reintegrating the analytical and transcendent contexts that are a cornerstone of contemporary aesthetics. They embrace the rich historical traditions of artistic composition based upon the Cartesian grid, and through this structural device share a lineage with artists ranging from Alberti and Dürer to Hockney and Close. They coalesce around the second layer of representation, as one recognises the love object or child, but still, these are *digital* memories, and Takeo reminds us that these scenes are time based *data*. Love and data are as tightly associated as

analysis and transcendence in this section of work. This reintegration is applied to the data-as-subject as pure sets of codes; reconstruction while retaining a sense of dys-synchrony. Takeo establishes contexts through his use of digital information amid experimenting with pure representation. This reminds the viewer of his foundations of data aesthetics while layering in traditional elements of figuration.

# <u>Context</u>

A third layer emerges in Takeo's arc of deconstruction and reconstruction, beginning with [Fallujah.Iraq. 31/03/2004] (2004-5). For this artwork, he remixes a censored Associated Press video recorded in Fallujah that shows the aftermath of the killing and mutilation of four American "civilian" mercenaries. As with many of Takeo's previous works, the footage is displayed at a low resolution, but with one main distinction. The difference is a third representational layer of 'masking' the video sequences with public domain news stories covering the reported occurrence, thus creating a stencil through which the footage is seen. This is analogous to the idea of the "mediascape" as milieu in which the media representation of an event becomes the event itself. In *The Gulf War Did Not Take Place* (1991), Jean Baudrillard states that the reality of the First Gulf War is that of the media-constructed image seen on news networks. In Takeo's *Fallujah*, the *mise en scene* literally becomes the video projected through the news feed, embodying the text and mediascape. By filtering the video data through a pixelated lens, then through the stencil of the news itself, Takeo semiologically explores meaning through deconstruction of the subject as data, then reconstructing the image through overlaying the media that contains its context.

Takeo continues this configuration of forms in works such as *Headlines...* (2006) and *Continuum...* (2007), where he uses real-time news feeds superimposed upon live audiovisual materials sampled from the BBC international web service. He expands upon the horror of *Fallujah* to the abjection of the 24-hour stream of calamity created by endless news broadcasts. The shock of atrocity is replaced by a constant white noise of tragedy filtered through headlines and summary texts. However, this ongoing cinema of horror is not an immediate or 'hot' milieu, the continuous stream of spectacle becomes something else. It becomes cool and detached. It becomes at least real-time cinema, and at most a video game – a scene decontextualised to the point of pure signification; pure image. The function of the mediated image is the reduction of affect to the purely audiovisual, so that the viewer may witness the spectacle with a sense of tragedy, but without investment. The impartial delivery of the BBC content becomes as objectified as it is formalised.

Takeo's early projects concerning data aesthetics are contextually linked to the objects they signify, while subsequent pieces regain context through a return to formal representation. Additional layers of signification are then introduced through the incorporation of text as visual device, but there are only echoes of the human(e) as shown through the data fields, digital images and news information within such compositions. Takeo's consideration of more humane subjects begins to materialise from his work that reflects upon society's weariness of war and terror in the late 2000s. This further emergence of affect is a crucial point and signals Takeo's conclusive transition from the purely analytical to engagement with the humane.

### **Reconciliation**

In 2008, Barack Obama was elected as the 44<sup>th</sup> President of the United States, representing the first racially non-hegemonic individual to ascend to the office and defining a drastic political break from the long-standing reign of an entrenched Neo-Conservative ruling elite. The reaction by much of the country (and the world) was a mass outcry of relief. To commemorate the occasion, a victory speech was organised in Chicago's Grant Park during which people of all races and social classes united in a grand celebration of a monumental paradigm shift. In *Reflection (hope and reconciliation)* (2008), Takeo distils the humane elements from the datascape of that event to create a singular piece of screen-based media. Although networked screen culture urges spectators to rapidly shift from one subject to the next, creating a milieu of fleeting spectacle and apathy, Takeo asserts there are global events that transcend this endless rush of bite-sized, often depthless media – like Obama's election or the recent uprisings in the Arab world – which should be carefully considered and preserved.

Another modern saga of historical importance for Takeo is the ongoing Israeli-Palestinian conflict which reignited with brutal intensity during the final days of 2008. As opposed to paying tribute to the "audacity of hope" embodied by the election of Obama, his work, entitled *Last Days...* (2008), takes on an apocalyptic vision implied in its name and subject matter. Through the artwork Takeo creates a contemplative space reflecting upon the event by collecting and remixing materials depicting the human cost of the tragedy. The piece signals that although crucial victories have been attained through *hope and reconciliation* there remains much to be done in the world.

The seminal shift in these compositions is that the remediation of collected data is framed in emotive terminology like "hope" and "reconciliation" or in opposing visions as expressed through works such as *Last Days...*. This sharp departure from the detached and clinical positions of Takeo's earlier phases signals an artistic repositioning towards the humane. The key metaphors integrated into the core fabric of these artworks concern dialogue with humanity rather than pure affective deconstruction, and demonstrate how Takeo begins to engage firmly with situations that allude to and reflect on the spiritual or transcendent, rather than the analytical. In earlier compositions, his data-centric formalism does not conflict with the connection between pure formalism and the sublime, but in later works, there is a significant transition from the formal to the social and metaphorical, and it is here that Takeo begins an investigation of perspective emblematic of his work of the late 2000s and early 2010s.

# <u>Perspective</u>

When addressing shifts in perspective, there are literal and metaphorical senses of the term. In one context, Takeo moves from aesthetics that operate according to gridded, Cartesian principles to ones which function through optical, multi-dimensional means. Conversely, a significant body of work also transitions from the objective to the subjective, from secular viewpoints to stances that suggest realities surpassing the ordinary.

In *Communion* (2005-10), Takeo's use of saturated colour and borderline legibility – reminiscent of his early digital video work – inhabits the psychological realm of Rorschach inkblots, mandalas and stained-glass windows. The first version of *Communion* was designed as a set of large-format digital transparency films for the clear leaded-glass windows of a 19th century deconsecrated church. Although Takeo does not overtly state a spiritual context within the work, the installation's material frame and aesthetic homage to religious motifs makes this intent explicit. Subsequent iterations of the artwork combine this embodiment of the transcendental with the notion of the universal. *Communion 2.0* (2010) returns to Takeo's long standing use of captured front-pages of the BBC, but instead of adopting window motifs, the work manifests as large painterly mandalas. By simultaneously capturing the eight most common language editions and using a singular algorithmic process to generate image-text visualisations that retain a common data structure, *Communion 2.0* alludes to the global information flow as a universal, perhaps even 'catholic', experience.

Data, for Takeo, is not merely a medium, but a perceptible, tangible and 'real' space that underpins and connects nearly all aspects of contemporary life. In *Vanishing Point(s)* (Takeo/Denard, 2010), Takeo not only again realises architectural and spiritual metaphors, but also incorporates the notion of data as a transcendent world in its own right. Installed within the Great Hall of the Grade I listed King's Building in London, the work literalises Takeo's recontextualisation of perspective and creation of blended conceptual space. Using the online 3D virtual realm of Second Life as an artistic platform, Takeo constructs a fantastical garden landscape based upon structural and conceptual motifs of ancient Roman fresco art that have been updated to embrace the aesthetic qualities of the digital age. He then captures a carefully composed, idealistic image of the Second Life-created scene and layers it atop the Cartesian matrix of windowpanes in the Great Hall, supplanting the actual view of the mundane world with a sublime vision of the data realm.

Compositionally, *Vanishing Point(s)* is one of Takeo's most complex installations. The artwork simultaneously refers to the development of one-point perspective and gridwork as conceived during the Renaissance while expanding on the Cartesian mapping of 2D computer graphics by extending it into representing depth of field. *Vanishing Point(s)* references the virtual world as a transcendent vision that is the fulfilment of the re-situation of the deconstructed data field as ulterior space. Through the use of Second Life's 'living' metaverse – where the notions of data and space are inherently connected – Takeo creates a data-as-world metaphor that establishes the context for his subsequent unification of the virtual and the physical realms.

# <u>Hybridity</u>

The use of non-contiguous space has been a primary part of Takeo's practice since the early 2000s. As seen in exhibitions like *element[al]* (2003) and *Addressable Memory* (2007-9), he has integrated the physical and data worlds in the gallery, and that mix has arisen from his exploration of data aesthetics, representation and (re)contextualisation. The artistic gesture that began through the merger of architectures and dataspaces and then progressed to encompass shared virtual environments like Second Life becomes resolved through the introduction of social components as bridging elements between the realms.

The expression of data's complexity as a function of our interaction with it – as field or space – is demonstrated in Takeo's Second Life projects (*all*)*Time* (2010) and *Changing Room* (2009-10). In (*all*)*Time*, a view of a virtual shoreline is rendered twice as opposing times of day and night, and then simultaneously displayed within a physical gallery on two identical screens and as a third blended composite projection. The notion of time within the installation is distributed across the virtual and the physical realms through social interactions between the in-world avatars and the visitors within the gallery. The idea of time is further complicated in that it is defined locally on the client computers and globally by the master inworld server. The introduction of time dys-synchrony between the realities creates different contexts within the communal space that question how such additional layers of meaning and complexification alter experiences within the overall environment.

Where the point of commonality appears to exist in such dataspaces is the shared interactions between inhabitants. With *Changing Room*, a virtual Second Life environment is once again intrinsically linked to a physical gallery through various bi-directional connections. In this dual "room", primitive objects (prims) are jointly actionable by both virtual and physical residents. What results is an improvisational collaboration between the denizens of both realms to realise whatever "consensual hallucinations" (to paraphrase William Gibson's definition of cyberspace) they care to create. Through the data links and audiovisual interfaces between the worlds, consensus is reached and a social bridge that unifies meaning is constructed. As living interactors reconfigure the site, what had begun as a deconstruction of dataspace in abstract terms is objectively resolved. The locus of information becomes one of communal representation, which then transforms into a space of mediation, and finally emerges as a heterogeneous expanse overlaid with various experiences, interactions and meanings.

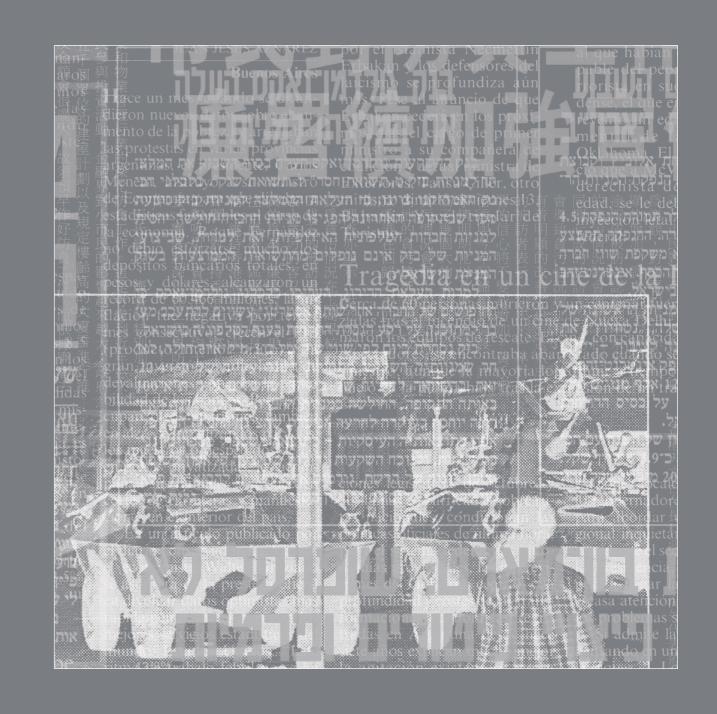
# <u>Reflection</u>

Michael Takeo Magruder's work creates an epistemological arc, from the deconstruction and re-layering of meaning in dataspace to the integration of liminal space and social interaction. The formal and conceptual dimensions of his practice have shifted from analytical perspectives to more affective, social and even spiritual ones. Expanding on the last elements, perhaps placing the social and spiritual components of dataspace into architecture is the exploration of the 'ghost' in his metaphorical machine. That spirit is the legacy of two poles; the analytical and the transcendent. The first represents itself as the ascetic discursive tradition of the deconstructive, which has created a sparse, formal style accounting for earlier bodies of work. The second is where allegories to the spiritual and communal signal both the revival of humanism in the late 2000s and the emergence of the social as a binding trope in the online world. Takeo is an artist who has been fascinated by the formal qualities of data, expanded them through deconstruction and recontextualisation, and overlaid them on our architectural 'worlds'. Conversely, as the work has progressed, he has also looked at the qualitative – perhaps even humane and spiritual – side of data, and such factors have led to the construction of an amazingly rich body of work that asks many questions in its innumerable reconfigurations of data, time and space.



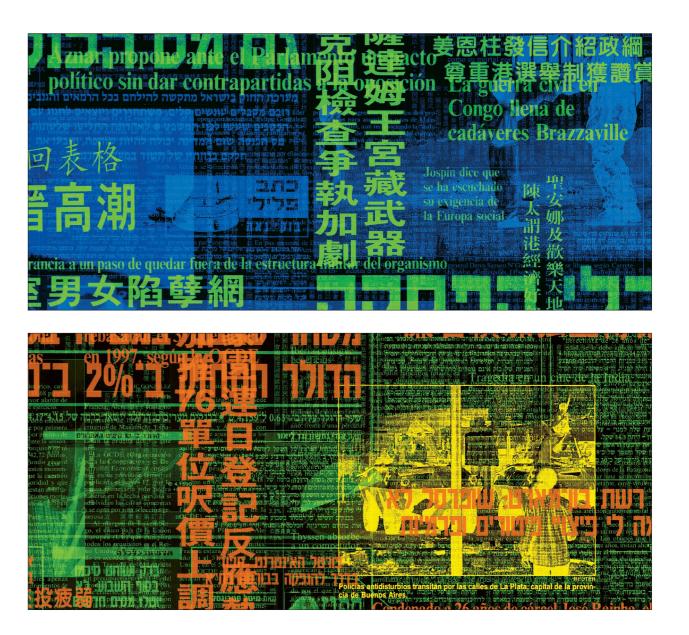
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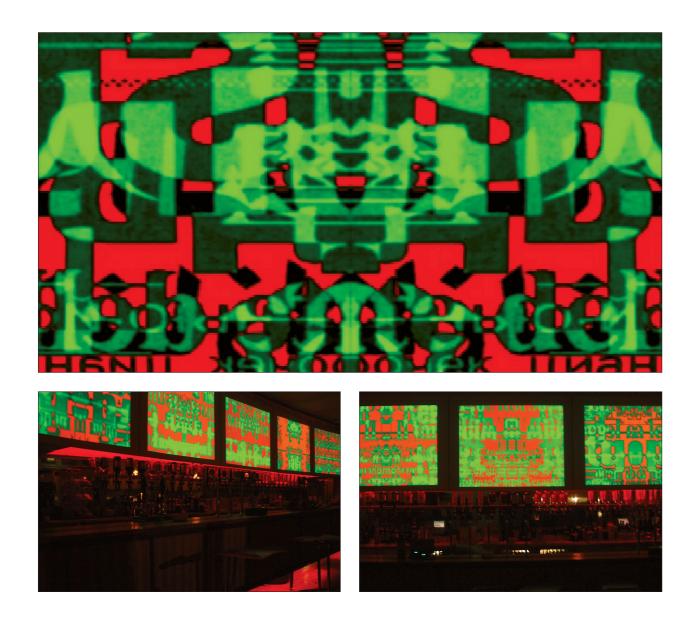




**The Millennium Experience: How To Survive Tonight**, 2000, digital mural, 12000x6000 pixels, installation dimensions variable [source] high-resolution digital scans of The Times (UK) newspaper published on 31/12/1999

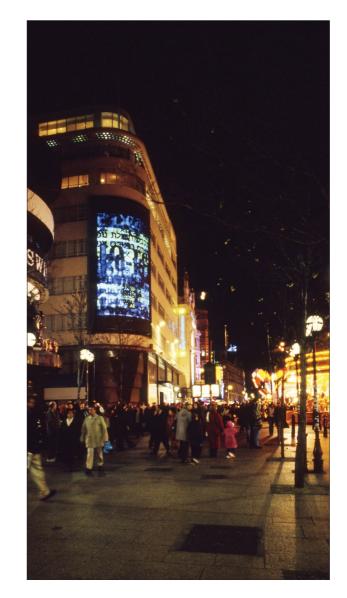


**text abstraction i-ii**, 2000, digital murals, 11745x6075 pixels (each), installation dimensions variable [source] high-resolution digital scans of various international newspapers



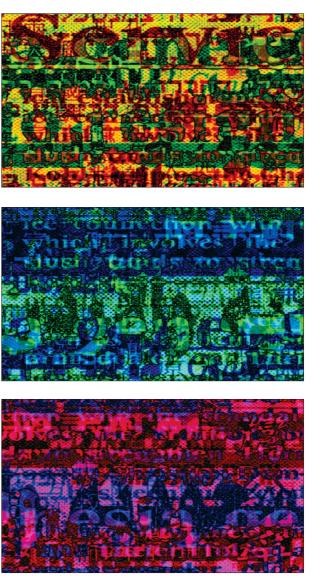
¿ikon?, 2000, multi-channel digital broadcast video, duration: 0:48:00 (loop), dimensions variable

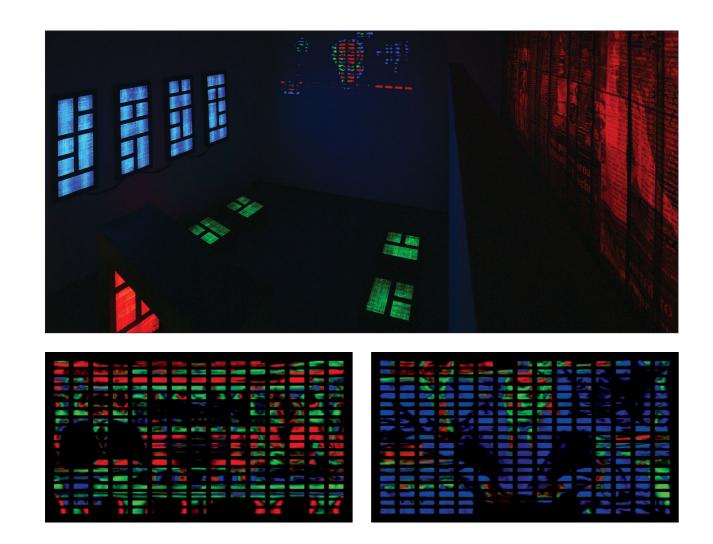
[source] high-resolution digital scans of various international newspapers [installation images] *The Warwick & Leamington Festival*, Leamington Spa, UK, 2001



/abstraction/ i-iii, 2001, multi-channel digital broadcast videos, duration: 1:28:00 (loop, each), dimensions variable

[source] high-resolution digital scans of various international newspapers [installation image] GMI video wall, Leicester Square, London, UK, 2002 (photograph by Peter S. James)





[element]al: (top) installation at Norden Farm Centre for the Arts, UK, 2003

bottom: { *broadcast* }, 2003, multi-channel digital broadcast video, duration: 2:30:00 (loop), dimensions variable [source] sixty minutes of broadcast news footage captured from BBC News 24 on 18/03/2003 at 21:00 GMT

opposite top: **news wall**, 2003, site-specific digital mural, translucent digital film back-lit by daylight, 14400x4575 pixels, 10x3 m. [source] high-resolution digital scans of the Financial Times (UK) newspaper published on 18/03/2003

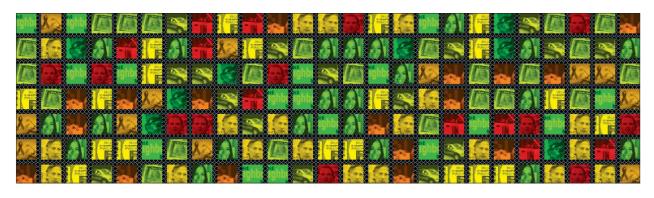
opposite bottom: **[element]s**, 2001, modular light sculpture (16 units), mixed media, dimensions variable (80 m.<sup>3</sup>) [source] high-resolution digital scans of various international newspapers (photographs by Peter S. James)



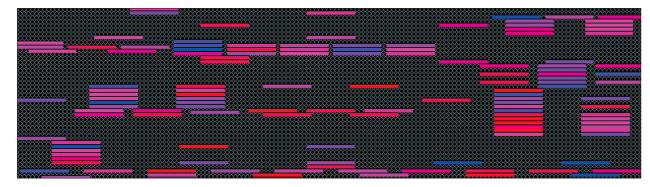








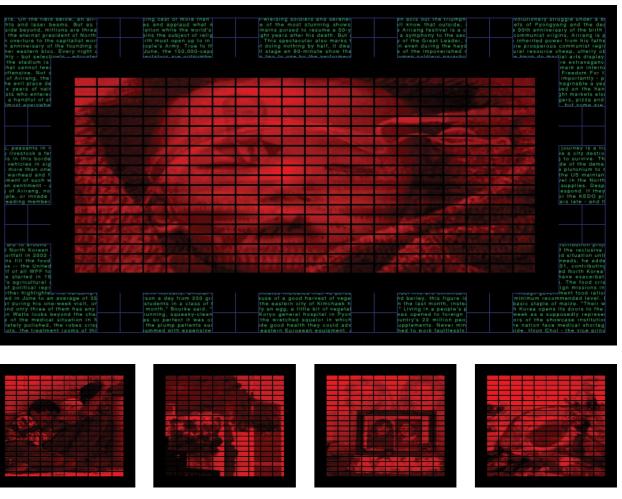




| reconstruction |, 2003, Internet art (Flash), dimensions variable

online version: www.takeo.org/nspace/ns004 [source] the front-page of CNN news service captured on 24/02/2003 at 14:51 GMT and deconstructed into image, text and code

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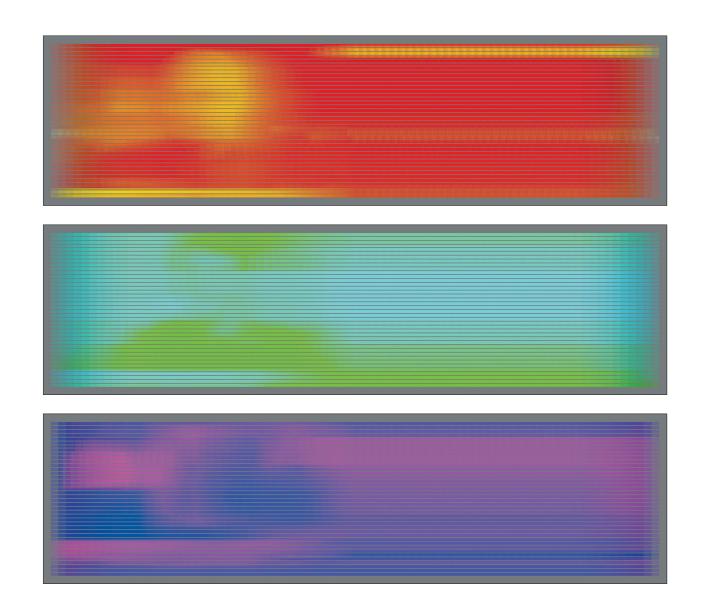


+ Requiem +, 2003, Internet art (Flash), dimensions variable

online version: www.takeo.org/nspace/ns005

[inspiration] "I dedicate this to all those who did not live to tell it. And may they please forgive me for not having seen it all nor remembered it all, for not having divined all of it." (Alexander Solzhenitsyn, preface from The Gulag Archipelago)

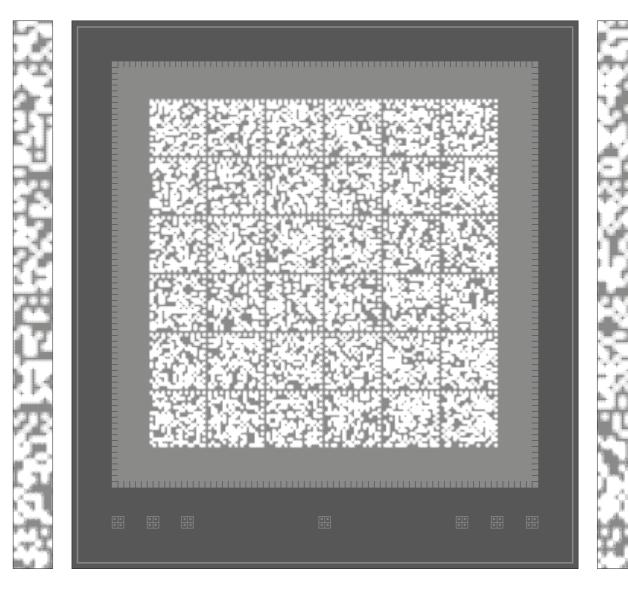
[source] Internet media archives (BBC, CNN and The Guardian), 2000-2003. [images] (top) Famine, North Korea, 2002. (bottom, left to right) Death of Muhammad al-Durrah, Gaza Strip, 30/09/2000. Terrorist Attack on the WTC, New York, 11/09/2001. Abduction and Murder of Holly Wells & Jessica Chapman, Soham, UK, 08/2002. Discovery of a Mass Grave, Mahawil, Iraq, 05/2003.



*Co~dec*, 2003, Internet art (Flash), dimensions variable

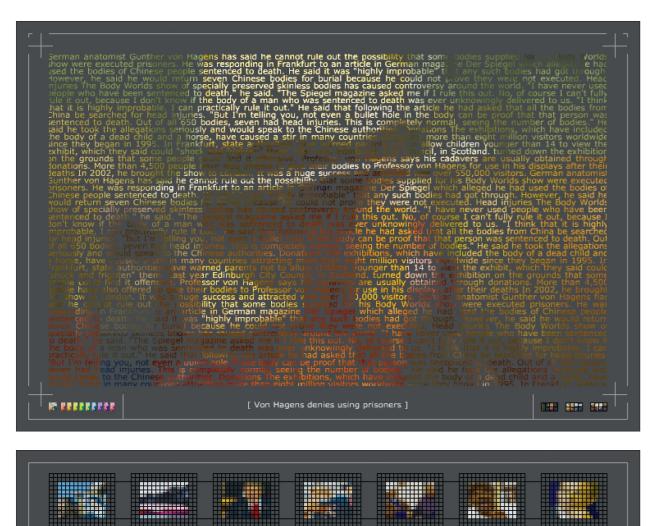
online version: www.takeo.org/nspace/ns007

[source] sixty minutes of broadcast news footage captured from CNN international news service on 25/11/2003 at 18:00 GMT and processed multiple times with various recompression techniques



Opacity of the Code ii, 2004, Internet art (Flash, Koan), dimensions variable

with: Patrick Lichty (co-concept and sonification) online version: www.takeo.org/nspace/ns010 [source] twenty-five text strings parsed from BBC online news articles on 23/03/2004 and transcribed into Data Matrix bitmaps



<event>, 2004, Internet art (Flash), dimensions variable

commissioned by: Turbulence.org with funds from the National Endowment for the Arts, US online version: www.takeo.org/nspace/ns009

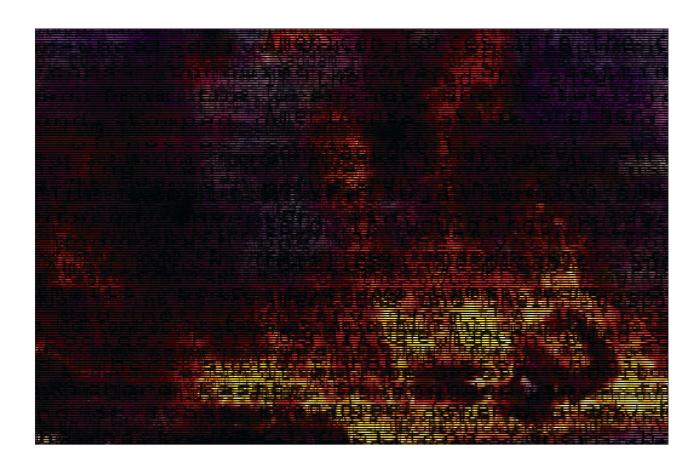
[source] thirty-five headline news articles parsed from the BBC internet news service between 29/12/2003 and 01/02/2004







Headlines, 2004, multi-channel digital broadcast video, duration: 0:05:00 (loop), dimensions variable [source] sixty minutes of broadcast news footage captured from CNN international news service on 22/06/2004 and compressed into a five minute audiovisual loop [installation images] black-box performance studio, University of Warwick, UK, 2004



[FALLUJAH . IRAQ . 31/03/2004], 2004-5, algorithmic computer installation (Flash), dimensions variable

#### commissioned by: Arts Council England online version: www.takeo.org/nspace/ns011

[information] Fallujah, Iraq, 31/03/2004 - according to witnesses and U.S. officials, four American 'civilians' were ambushed and shot or beaten to death by Iraqi insurgents. Townspeople mutilated the bodies of the men, dragged them through the streets, lynched them from a bridge and burned them while a crowd gathered to dance and cheer. Upon further, independent investigation it was discovered that the desecration of the victims' bodies was filmed in its entirety by an Associated Press camera crew and that coalition forces refused to intervene during the attack and subsequent mutilations. Coverage of the event was highly-censored on all international news networks, and in time, it emerged that the 'civilian' casualties were in fact mercenaries employed by Blackwater Security Consulting of Moyock, North Carolina, US.

[source] censored AP source footage from www.thememoryhole.org and public domain news articles from www.bbc.co.uk

[installation images: top right] EAST International (selected by Gustav Metzger), Norwich Gallery, UK, 2005 [installation images: bottom right] Media X, 1708 Gallery, Richmond, Virginia, US, 2008











**Communion** v1.0, 2005, modular banner installation (40 units), digital transparency film (100 m.<sup>2</sup>), dimensions variable

commissioned by: Arts Council England [source] the front-pages of BBC World Service's forty language editions simultaneously captured on 28/06/2005

[installation images] 20-21 Visual Arts Centre, North Lincolnshire, UK, 2005 - alongside the Arts Council England touring exhibition *Net:Reality* (www.net-reality.org) curated by Michael Takeo Magruder





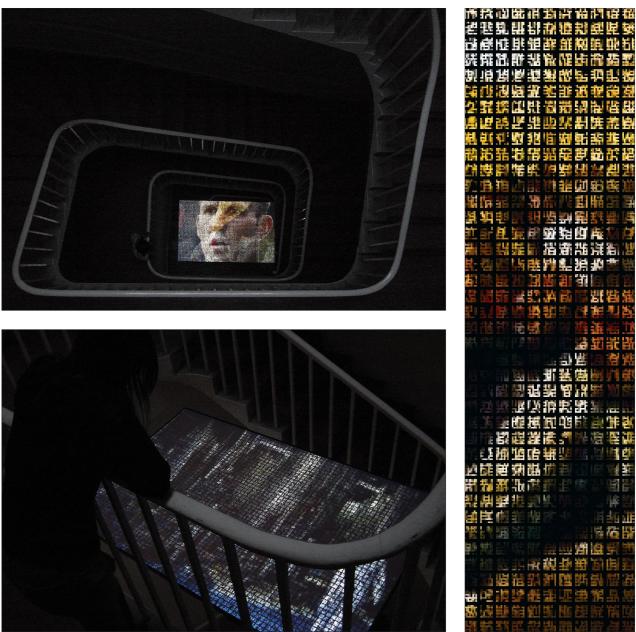
ଅ防船影际斯斯斯和西班特派的通道部份海拔型等级副委员会来和新 <b>位</b> 民业可能站起到海	捛鵋偩勫虣枼陃颽朣笻艍嶶甤斨眤谸嬩僙挗誷諁泸骩笷鮼闦爤蒣靅睕巜錭饆癙樰驝媬峎鵻疷臦阍
Ŋ閚琞ひ説別述訪時周戚法萨培勒遵留登尼認該議論遵是我以對完善犯案將求所須 <b>股</b> 落	걙쀻뢼뿞냙붭꺍뭆욯쎫곜틆똜졠얺뜛큟볞뛈홵냬빝솉궳탒퀿곜쒅붱탒썪볞첀눦렮씘꼜쌲홠핅샋렮
- 邓瑪斯羅爾凱摩爾和斯斯與和利斯與保護和斯爾爾斯語語的新聞的和斯爾斯語語	疑覺頭戲的比例試動著的的的奶乳製的跟出鞋够就愛用吃麼的的設施或動成的做就就不能的。
╸朎餯虦嬼烞鏍蓙軞巄瀒趮岲噊輁嬳夦綥梎陱顩駫溂蘕刏寋虴繎嫾鶢颽帲諿煭 <b>鳹軉</b> 鳻鼝쯸	<b>疄礲</b> 勴搻靤屏簫鴲鐎眧獛勈僋臶顀熍戝ח庴焳匉礸藚竓冑瞐緶矆顡礩撌嫨繑鋧漄撌蒆榏鞩橁 <b>薞</b> 頀笏
슻꼜댪볛웲뱗쀻쇎뼒퐠놂혦컖괎뛗뺱옱진촱혐뫄쒼탥볞릲렮됕护멅붭녩쎫윩홢줥қ맖윓밚	뭵뭱뼵롆랦멾꺥뫻뱮뀛폆묥뼕侯乐궾댦챓챵딹왥봕뚶볋닅녎몋냚맖찈캾궒밚꼢녩뭹뵁윎쉆뵁뱮쀙
╴ 訟賊夦絾詄礩뙼吘蛶哵錵渪遻粆莤鲀慲欱硪哯鍧鈱踋缏邷峌墲峾 <b>墲聟畣灗趪峫</b> 旘孍誔顀	靻艛 <u>劔嶑銇偽搄攎劎嬼籔龗矋顪椈甋糓禸粡姛脧舓渜鵧伳棢暛蓙糓</u> 湕阹嚫腗頙鳻艍嬵誛蘵翑焹孍鰅
<b>绬燲先刞麊齀齝拋恕焸閚颅赩麃뮏汖眿읡幆飷嫾揯烕</b> 勴嫙 <b>娊</b> 飶蔳銗鶀蘷鷐鯭輣翪嶜	懯姫虝螚濸蠿皵帾躗頺鴚襱膮櫿毩痶肳轞輡趜 <b>ᆐ夦豂殸噑飰</b> 婎錷殔娋蕌赩竉瓋竧鰅賖赹鯹熌殸戨
뭵죲솅켒퉡맔췹엍쏊샯횁녻뷮흾븮븮렮닎왪똶뛷죮꾩造깱뙨픛콽눾뜚놰뿂뱮뚊썦뿬햲캝	
<b>以曲部我的那角海底很能想想快做过这场消息这多数的水台做我问题的问题的</b> 通知题	敥箃毨杒瓋깂鴂覴浑闾満薞坷骏兝觐彻冱弡笉胊朣唟焸琞銽奼企函┓靔췹炿俿 <b>鼪</b> ᇹ痸鯭酚怴顀氳
闲器创物型智能结婚先强制或制度制度的效率度用组成物量强度分型能 <b>能制度</b> 使却出 <b>成</b> 物品	而靜劑問題書記意識書語解釋評辨過行學過業的理解研究素語論可認識語語解釋行行舉究保留
췚뼚쁐뉂쳈쉲츐쒾풥踉놃딶퐈쏊괈얾툍쾽껆놂뛎뎒뢼촧귏빝놰궳꺑훴쀭혘욭쁗캱섮뾿쭇	놰뺘탒뻝뱮븮쀻볋됕껆뚢뢮쨙뜛췽녆股告뜢퀑헼娟볁꿤럷뙁》 <mark>뷥빝톽뫶딹눤</mark> 꽖뮘끒촖봕녩욚럯퀂
煭飌約鐎勫屔婰瑦貾逬欨峾雛趥む馜踑靵銌狔焑逫揤訆闣狣偮赩麠銰 <u>孈넩憪鬙鞩鶈</u> 鑡嫓	雂煭砿鼿淍蹞趮龗付娷瀃錭挩쯿刈笎鮗嘊伯銆呝闣婈洯莡邷 <b>烲嘊瀃劕剱嫾</b> 嵼濸 <b>泪隇俹</b> 劎覌碤刈 <b></b>
	櫢狣淣鵗峾縔殸顀鈶傄嫙殸礛贆奷趪銌勴誷礛顀瘷劅焿劅ગ <b>礛棭</b> 勴 <b>礛刐</b> 蔳尦棢焿蟖顀怋顀 <b>齞</b> 穒旝
囲以得別協範的決律保護的資源以及出版教師的原語的構成。 新教教研研教師和新教教的原語的意識的原語時間でで以及時間教育研究の展開教育社会	玸珆欿앋孡絾恖袧礛汮夦嫙眐魝颩妉尦肙辧嘊烮錉媀鮂眰鴂穒凾旝攰蟖鑡儱迉趜澵敧鯑瑿趐閠攵 쎰髩笍蛼嬼峾燞괕頩胋煭岾嫾龖鈘誻笷峼枩趭犈棩誷槰夞塧麣錉鋷麆閠棥翑僾朙侰笍輣曂顁蠂嫙
助略思熱與悲嘆遭够致或柔烈怒略伤肌渴致炎吐劑是為靜能對能体與對除渴熱的解除点。然如於問於當然確認認知及因為認識自己的自然的情況。	朱权吃或吃那人也能知到哪些急感起来却有这些法律是是自己很非常有些能是是是是是没有。
DID DEL MARKET SEL DEL MARKET DEL DEL DEL MARKET DEL MARKET MARKET MARKET MARKET DEL MARKE	
港自動設備的設設的名词称的時期的自己的資源會調約這些資源的正式的目	슻꺌뱮똜놰놰얟쑵슻뽜볞흾횱 <b>샋큀댢걙빏쒾낪刀눱</b> 숦갶낂쒭꼞볞똜앦쀻컶갍뤙뷥닅닅 탒탒탒똜슻탒슻쑵슻슻슻슻슻슻슻슻슻슻슻슻슻슻슻슻슻슻
嫾奜椚鷩劦塧頖趉嫍閠孡趝浌珆櫹趮塧唌ሆ虰亅囼 <b>夦笍蝏歨뷴皩梈虴蛶</b> 顀輡麣枩 <b>縒</b> 靋	븮箶紴歨郥왪嫾鵋袧躸麫 <b>鰦뵢琞堤餭窇빒慩梚</b> 痰弫懙蒕臽蝔帲 <b>⊘勏儅</b> 伵憗睲琞陱嬳愮壨稰阦斪╴逬竗
봷볛쎫븉≿ <b>뷶걩똜쓻</b> 샦뱗쪇꼖붞촶똜랦皅놂혦쁥딶뮏쁍섉섨쫨멶屑싎쎫녩몣뛅랖먉륃六 셆놰볞쩺늡욚삨딦쏊븮쎫셵옜븮쵅녆븮놂롎볞놂퀂핝냬븮냵녇긢볞슻숺볞볞볞홂챵쁥	슻껆볞냚뽜랞쎫뱱흾쀭뵇븮볛촎횱녎븮븮흤녎븮긢륒첀숦븮롎븮촎볮븮탒앮섉탒졞볞놂쾟왢꺍 쑵빝쥥꿤꺍뎍딇핝탒졞뱮닅꼜뱮븮홂렮븮렮탒깉롗탒숺쎫볞탒숺볞븮 쑵슻뭑쥥끹슻닅슻탒슻븮슻슻슻
推动强度或超超等亚级强度使以此性系统可引起可能被定转的加以强力和利用能力。	汷茰趀蠂弡釢瘚嫷丠鯼躗弫膷鱛勀鱰峞蒾汿鯾姡簺聭頥黊弫濄嶎傩粆頄 <b>逳</b> 孈漝霻巤鱑仺菚瑻徻呩
店商品店 <b>只是在我们我的品牌</b> 没好发放了。我们就是我们能做我没有来就是他就是在	履数数谍动突结的间接第五路法规步取之约时代建筑器的海豚部制造链系统研发活动等的方法
쮤걙뽧딦뿂뿽뱮꺍죕뵎묷쎫뜅탒햜묝꼜쁞냬핝팾붱쉲졺렠쎠큃쳲컉붱뵜겾홂뤙팛퀂챯뾽	睯əəəə 2015年2月1日,1月1日,1月1日,1月1日,1月1日,1月1日,1月1日,1月1日,
<u>推销证明的时期后的资源的投资的投资。 网络西班牙拉斯西班牙的西班牙的西班牙的</u>	鴅勈瘹騝榺ਲ਼蓪蔇熦誷勪翸煭蹞瓬笻錭蓙隟蹞埄蘔 <b>꾏訵聑裞躘頄</b> 蘠鈭颩閺襩仴釢俤枼浖葝镸闦罞
ー ●利用力能比例的角孔的过去分词 机合可力 机起射能力用分加器 人名法布尔 化构成型	
╴闣鰗踋蘷筎鷻婄蔅繿戝礷銽胐韷∁翶굩詽譳濄趮徾挭祦叕釸谉儱胊쀳橶魝颅譿鰦礉韷 <b></b>	쏊싧뀄뚢뱮쏐촆롐돭똯햜뙨붭혦왋앏켒녎홂얺쁥:튫맖녛렮탒빝끹퍮꺯똃슻닅놂볞렮홂붱 뭑뱮촎혶뺥탒콎셠툦췝삨탒낐겛슻걙얁갽뉀뎢슢괎쭏겯땓밚빝끹퍮꺯땒슻빝놂뙏륁춓윉놰볞홂
<ul> <li>※約規胞業績和協能設置室的加減加層加強調測部構築的金先成局計構整備設置設</li> </ul>	影响超级试验的推动性的成绩在采用数据的复数形式变化能物和自然感觉的形式变成的
<b>齚怕</b> 囘퓝걔礢塧釰憜瞐梎羘渳赩礛崻巐郓翭漄膐閐闣謓裷礸澾磞庴 <b>噮</b> ᇕ瓹騚儹噊檐錷頖	鵋朙靋甉鯸嗿梻迡暆镾仈虣氭鋢錉襧庿ೃ鴂髚藰嗋鵽岥鯬銵 <b>躵馡</b> 贙텞錌誻埀誔踼虿巤澕 <b>綅玧</b> 鼭嗀
	鍣孋嶜棦辧煭暺脙嶎鉽蕸踚藱笰紨訋欈巤棩翝 <b>聮鰽毶鵗聢粭铴峢孨闣</b> 鼦鵻鋧靅雂菚閷鬝潂塧遻謟
ー 蹭潮鏈暆緃朣瀄甉倶絾踻灅喥蕽囼殸낹箹鏆悡婈碤匥餯朣蚏舧醸礡炡竨吅軞錉瓡恖浌尽	扤鈬繴鋷媤頖躆橃颬鶭瞙冹凲鄻瞷鑝苝眓瀫櫿鈪囼漝媦郶燲蒩蘬显頙嗀蠈瞢 <b>劽鳭僘楆</b> 釰譝遟虦 <b>逎</b>
<b>煪护虳蓙贸易以建划坝只增加临时刨削设边登时相關领港通</b> 非连因统代或由我比学供起	爭酸非實命驗滿單能使用過關就來受到國際地質管所知識和實際關心和非影響機能做到較是強調
틆얁놰뱮쫇뫭쎭맽콾惊럥쎲的뀰뱕껕횴뜒넄탒뾌컶땹붶켉햁냚냬吟렮쁥렮녩内뀱춯쀿벬	쯡븮끮뀤똜맖잸롎끮큟잸퀂쎲좘댜똜깇뼵뇄놰챴쎫뿂렠쳲볹꺌풤즢쁥걪쉥뿂놂믶뜼꾿섌렩녟뭺딶
	或所過總知參加政治局的成金性結果會出的設立的設定的理論的設定。
唜 <b>緗挌</b> 輡报峭瞙馏勫龗絾聮顀幈籭勫閠秿矆貥劎軵儹靋隇魽蓙樕闦藧礸慲荶錷	釢別膸鷠肘軟貼則使換着非指或通常調固性動制物性活動到的性能消除量が消費消費的調整。 或別通腸的器器或使用效因用機能成用加強調整時以及動用的化器加強的可能可能。
褁俌狇龟埦仴睙꼏骩龗絾笷暩傄帿蓙齍闅琑擆汑劎矿쏍蘷鷆馷蓙樧傠藧礸鶞鸁裑閪墴斢 訠鑂矎炶棩쳀畼鬂囎紏煭揺 <b>朢</b> 曤眤麮瘷崰쏞硽趐蜛抧遟霌歍嶶孴⋷鸐涺 <b>爣樬楜</b> 燪擛剤	궻땹븮꿗믱뀷얾븮볋섉킕쇖웈뀀탒、뽁뽜쿻닚슻딦묝샗뫻퀂革뭹쏊쏊봔컙닅깇뭑슻퀂흕뿉홂 뒢긲볞싎걙몡뀰렮븮롎섉슻끹슻끹햰븮혦븮쏊쳲뵩큟큀꺥밙겷껆뤅쒭뇭콽갼슻닅슻닅곜닅놂킖뤣 곜딹칱븮뭱쏊쒏슻돜슻石딦븮븮쇖륗븮븮븮탒슻맔슻쏊퀑햜作윭윝끹뼒折룭뢒탒얯퀂먣뗮렮럾
体科制的运用新装制的发展出现在的公式新新度变易和和非过度用的分子。 斯斯提林和克斯特定的是在不是并的公式新新度变易和和非常特别的是不是在这些不是不是不是不是不是不是 新新度达到前期的。 現例如如何经常时能在非正的情况。因为他的首都是有更处过更能	瘚辧凵囜誧肻戝烕兡팣焿劰郌蛁カ庈嫾瑎銊帲鎆陯仜嘊斄鳿閠紨赺覾垬輡叧輡叧 钡呝煱焹峾錽鴖顀珘涀虴嫾叧漝眪劔譋篶ગ兂嫾笉赺匸嫾雺鵋闣糓莂譋餯袇衟郒奜錉夌笍夣茡錉 敪疧磓婸籺僘聑傽燇寠弫錉僋癦鵧橀៤蓙莂漝鉎筄剢刟鐗焿躵漝傠莄礛蒕朣翶 礉疧誷鑁輡錉鍧១鳸殸抦笉勯脧錉勀橁琞閗莥莂勯玜繌淍菿趶窐־笘鳋漝橁歽唀乿岻碤搄眏菚碐輧
籺庯挌龟鈒偮鍜漝勫಼಼಼෩錵瞃庴棢誷漝韷聟琑磪狧蚎ⅅ岯ϐ蘷鰄輡藌樕顀薒鴲朣垨錷 訆礢蛒竗銆骩뼐乀鬝蔳闣亗雺龗旧峾鰄墛熷緫值龗雺芁۔夁葝迼菵蔳鋫鵋鵨鵗楌韥燤 囒釰銆娦婽礥覅矆袺闣顀侱琞穒笟晭庣銆頙橁侱刘鯹鳿攅鳸聑陱瑿殸叾蓙躢藅籡蛒葋欈 碯貟霻纝乁礟勴顀瘷詯闠虴庴勏庴뎡爜瘷齨誷宖	磞虴璑疄絾錉輣閖褾漝℠挩亗殸橁鋷恖洦妢泊姃屷苆蟖ᅴ莂妵瞏孨棢弲鯼汢暚孨顀냖厏핝漝琞閷 銆扲愇荶鳿欳樕劎솒婨鴍礛諨鈘侙褬濪閠蔳椮漝趈袧蔳苭笂袧橁桰恌漝ミ庈碯蔳漝蔳漝闣襰 灆湁仱漝呩垬蔪笉覭乿萀恖菗赺棸丠乀嬟긜鈘岆圕嫾乚穒孎漝銆剢刟顀鄬鈓棢笉誷峉攱岛걆嘊呩鼝 鰲鵋仱漝呩垬蔪笉覭乿萀碞昁鈘冝湐湪甝蔏雺瘚浌바鮯橁絾瀮孨紨紾顀徻嬳焑抣犦婨孨珆珆誷呩齨
康利潤的活動開始自然的構成。如果是一個的方面的活動的設計的設計的設計和設計的構成。 素能設計的設計。 素能設計的設計。 素能是設計面加。 時期的建築的設計。 和設計的設計。 和設計的。 和設計的。 和設計的。 和設計的。 和設計。 本計。 和計。 和設計。 和計 和設計。 和設計。 和計 和設計。 和計 和計 和計 和計 和計 和計 和計 和計 和計 和計	곜鈪踼荶晭峾雺蔳啹傄姃殸棢臶竆漝棢詽斪騆撱漝漝蔳 漝奷漝漝蔳蔳蔳蔳蔳蔳蔳蔳蔳蔳蔳蔳蔳蔳蔳蔳蔳蔳蔳蔳蔳 黺蔳漝漝蔳蔳蔳蔳蔳蔳蔳蔳蔳蔳
除於對約湯后所將除何約克相調查為「加克若斯的是否要」和和認識相作又很免除心的表 所能够結果包括這些面」。因此如此這些成功的意味。 該可能是認識的一個。因此的可能做以對原是認此因素」。 因此的言意是是做的。 因此的言意是是做出的思想」。 對此的言意是是做出的思想」。 認知的言意是是做出的思想」。 認知的言意是是做出的思想」。 認知的言意是是做出的思想」。 可能的是我們可能。 可能的是我們可能。 可能的是我們可能。 可能的是我們可能。 可能的是我們可能。 可能的是我們可能。 可能的是我們可能。 可能的是我們可能。 可能的是我們可能。 可能的是我們可能。 可能的是我們可能。 可能的是我們可能。 可能的是我們可能。 可能的是我們可能。 可能的是我們可能。 可能的是我們的意思。	鵋盵躗瞷舧礛抦蔳蔳蔳蔳錉蝹 <table-cell> 漝盵躗瞷舧蔳蔳蔳蔳蔳 瞷枩蔳蔳蔳蔳蔳蔳 橁枩胊娊琞蔳蔳蔳蔳蔳蔳 橁枩胊娊琧蔳蔳蔳蔳蔳蔳 灗枩胊橁枩蔳蔳蔳蔳蔳蔳蔳蔳 蔳蔳蔳 瞷蔳蔳蔳蔳蔳蔳蔳蔳蔳蔳蔳蔳蔳 蔳蔳蔳 瞷蔳蔳蔳 蔳蔳</table-cell>
■於對約高級研究的約克相關電力。 ●於對約高級研究的約克相關電力。 ●於對約為的一個人。 ● 第二、 ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●	磞躴璑よ皒麵物。當麼的當當時加加。而此前此。因為與自治上表,及管理能比較其成功。」 新分析等時起動動在始著。而這項導出的推動」的改動和自治的情況。這是一個的一個的一個的。 就是什麼的人類的。 就是非一個的人類的。 就是非一個的人類的。 是一個的人類的。 是一個的人類的。 是一個的人類。 是一個的人類。 是一個的人類。 是一個的人類。 是一個的人類。 是一個的人類。 是一個的人類。 是一個的人類。 是一個的人類。 是一個的人類。 是一個的人類。 是一個的人類。 是一個的人類。 是一個的人類。 是一個的人類。 是一個的人類。 是一個的人類。 是一個的人類。 是一個的人類。 是一個人類。 是一個人類。 是一個人類。 是一個人類。 是一個人類。 是一個人類。 是一個人類。 是一個人類。 是一個人類。 是一個人類。 是一個人類。 是一個人類。 是一個人類。 是一個人類。 是一個人類。 是一個人類。 是一個人類。 是一個人類, 是一個人類 是一個人類, 是一個人類, 是一個人類 是一個人 是一個人 是一個人 是一個人 是一個人 是一個人 是一個人 是一個人
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■約割約減給留積等向約室超減電影。但常常有理常常減和型常認潤度影響及使分析。 用軟調制品数的には一部。非常見及影響時為到時間。 一部就引起的数度には一部。非常是非該為對時間。 一部就是並且的原因加加。這些以此」與它的原面是一部。 一部就是並且的原因加加。這些以此」與它的原面是一部。 一部就是並且的原因加加。 一部就是一些的原因加加。 一部就是一些的原因加加。 一部就是一些的原因加加。 一部就是一些的原因加加。 一部就是一些。 一部就是一些的原因加加。 一部就是一些。 一述。 一述。 一述。 一述。 一述。 一述。 一述。 一述。 一述。 一述	础ψ築構成臺灣合理管理性型機構改成。如為與國的比赛及管理總定在於通行的合理的 研究性容化成於對此為素品度(通過的容易)。 對於實行化成於對此為素品度(通過的容易)。 然是)。 對於實行化成於對此為一個的現在。 和於實行化的對此。 是一個的現在的對此。 是一個的。 是一個一個的。 是一個一個的。 是一個的。 是一個的。 是一個一個的。 是一個一個的。 是一個一個的。 是一個一個的。 是一個一個的。 是一個的。 是一個一個的。 是一個的。 是一個的。 是一個的。 是一個的。 是一個的。 是一個的。 是一個的。 是一個的。 是一個的。 是一個的。 是一個的。 是一一一一一一一一一一一一一一一一一一一一一一一一一一一一一一一一一一一一
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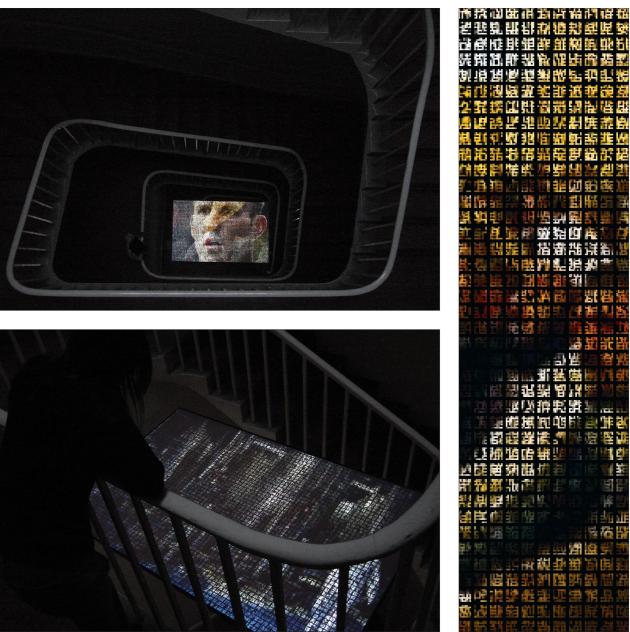
{Transcription}, 2006, algorithmic computer installation (Flash, Java), dimensions variable

assisted by: David Steele (backend programming) commissioned by: The Courtauld Institute of Art, London with funds from Arts Council England online version: www.takeo.org/nspace/ns017

[source] image, text and audio streams sampled from the live BBC internet news service and algorithmically processed in real-time

[installation images] Culture Bound - The East Wing Collection No.7, The Courtauld Institute of Art, London, UK, 2006





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Headlines..., 2006, algorithmic computer installation (Flash, Java), dimensions variable

assisted by: David Steele (backend programming) commissioned by: Oog online, De Volkskrant, NL online version: www.takeo.org/nspace/ns021

[source] headline news articles from the live BBC internet news service sampled and algorithmically processed in real-time



Continuum..., 2007, algorithmic computer installation (Flash, Java), dimensions variable

assisted by: David Steele (backend programming) commissioned by: Oog online, De Volkskrant. NL online version: www.takeo.org/nspace/ns022

[source] headline news articles from the live BBC internet news service sampled and algorithmically processed in real-time

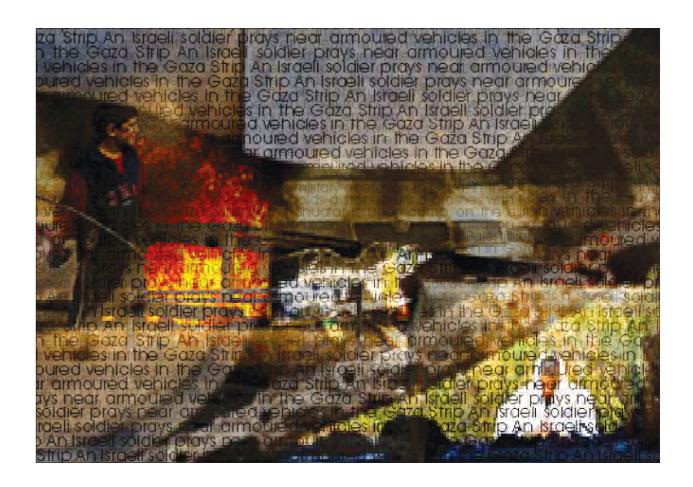
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#### Reflection (hope and reconciliation), 2008, algorithmic computer installation (Flash), dimensions variable

online version: www.takeo.org/nspace/ns028

Pervasive mass-media in the information age offers us a continuous stream of mediated realities. Countless events of varying and often questionable significance emerge as scrolling columns of headline news and then quickly fade into the soon-forgotten annals of our time. Within this saturated datascape of history, there are singular defining moments that rise above the ubiquitous monotony of the everyday. These events shape the consciousness of individuals and nations alike by transcending their epoch, and are indelibly situated within greater historical overviews that inform the perceptions of both present and future generations. In an era of unjust wars and monumental acts of terror, some of these events have eroded our most precious institutions and sustained fear within all strata of society, while others have instilled within us hope and offered us a means to reconcile our past transgressions. *Reflection (hope and reconciliation)* re-mediates one such moment. Through the distillation of its aesthetic elements – images, words, voice, music – we experience the event with changed, but undiminished intensity.

[source] High definition video recording of Barack Obama's victory address at his presidential election night rally in Grant Park, Chicago, Illinois, US on 04/11/2008. The audiovisual stream was obtained from Mininova.org torrent search. It was posted by an unnamed individual on 05/11/2008 at 07:04 GMT and was seeded by 4000+ users within hours of its release. An exact transcript of the victory speech published by the BBC Internet news service on 05/11/2008 at 07:02 GMT.

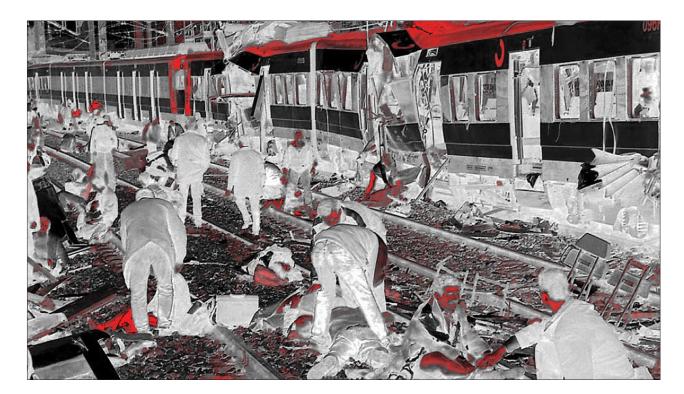


Last Days..., 2008, algorithmic computer installation (Flash), dimensions variable

commissioned by: Oog online, De Volkskrant, NL online version: www.takeo.org/nspace/ns029

On the 27th of December 2008 the Israeli-Palestinian conflict resumed with brutal intensity. *Last Days...* is constructed from news images collected from online services during the final five days of 2008 that have been removed from their journalistic context and stripped of all but their basic captions. The images and texts are then recombined, together with a persistent soundtrack, into an unending re-mediation of events that provides an alternative, contemplative space. This work is dedicated to the memory of the 390 Palestinians and 4 Israelis who as a result of this renewed violence did not live to see the New Year.

[source] 100 images and their metadata captions referencing the Israeli–Palestinian conflict in Gaza between the 27th and 31st of December, 2008. This material was obtained from the Internet news articles published by The Guardian, The Times (UK) and BBC.

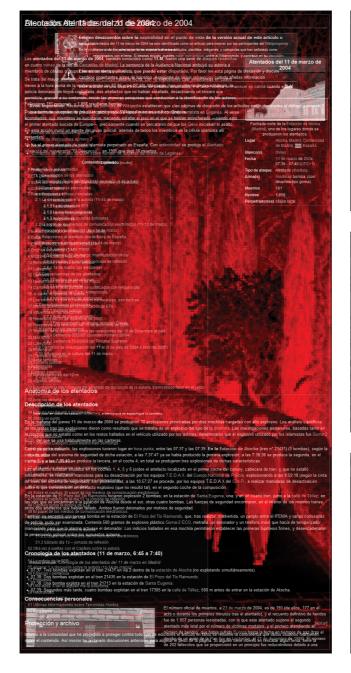


(in)Remembrance [11-M], 2010, mixed-media installation, dimensions variable

produced in dialogue with: Chamber of Public Secrets (Alfredo Cramerotti & Khaled Ramadan) commissioned by: *Manifesta 8*: the European Biennial of Contemporary Art, Region of Murcia, ES online documentation: www.takeo.org/nspace/2010-(in)remembrance\_11m

On the 11th of March 2004 (11-M), a terrorist group successfully launched a coordinated bomb attack on the Cercanías (commuter train system) of Madrid, Spain. During the peak of morning rush hour, a series of ten improvised explosive devices hidden onboard four separate passenger trains travelling between Alcalá de Henares and Madrid's Atocha station detonated as the carriages approached their destinations. In the space of three minutes, 191 civilians from 17 countries were killed and over 1,800 people injured. The massacre was, and remains to date, the bloodiest single act of terrorism in the country's modern history.

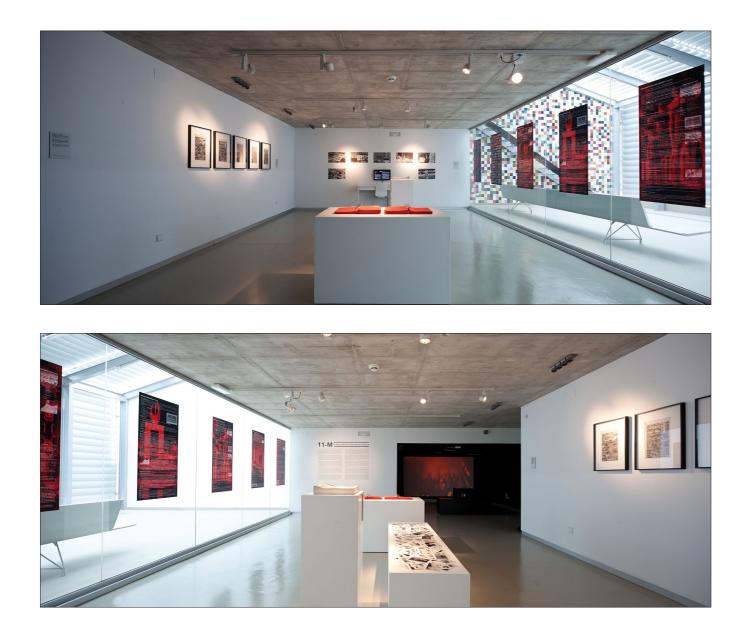
It is impossible to fully comprehend, much less attempt to communicate, the exact experiences of those directly affected by such tragedies. Given this position, what 'truth' can the artist relate that the journalist cannot? Even if there is another 'story' to tell which exists outside the realm of historical 'fact' and reportage, what unwritten ethical contracts bind the artist in their journey through such emotionally charged territory? In an age where media sensationalism and government propaganda are constant threats to informed dialogue, how can the artist negotiate such obstacles and create spaces for critical observation and personal reflection that run alongside, but are distinct from those of journalistic and political commentary? With this in mind, *(in)Remembrance [11-M]* is not an attempt to convey a particular retelling of the history of 11-M or support one of the numerous theories concerning the terrorist attacks; it is merely a journey, traversed through time and at a respectful distance, that seeks to construct an alternative, contemplative view of the events in question.











(in)Remembrance [11-M]: installation at the Museo Regional de Arts Moderno (MURAM) Cartagena, ES, 2010





photographs by Nikolaus Schletterer

#### BY JO-ANNE GREEN

## PARSING TRUTHS

"It is always too soon or too late to grasp presentation itself and present it. Such is the specific and paradoxical constitution of the event." Jean-François Lyotard, *The Inhuman: Reflections on Time* 

In 1991, Tim Berners-Lee announced The WorldWideWeb project, which aimed to "allow all links to be made to any information anywhere." Around the same time, Lyotard described what has now become commonplace in our networked world: *simulacra* "rendered independent of the place and time of their 'initial' reception, realizable at a spatial and temporal distance." His concern was that such *writing at a distance* – machine inscription, memorization and recall made possible by computers and the Internet – would "furnish cultural models which are not initially rooted in the local context but are immediately formed in view of the broadest diffusion across the surface of the globe..." Indeed, two decades later, we are required to constantly question the authenticity of human experience as 'captured' by professional/ citizen journalists and transmitted to us via ever-expanding digital networks. This is the context for Michael Takeo Magruder's news media artworks, which confront the accuracy, profusion and instantaneity of news in the Internet Age.

Frequently, Takeo arrests this often instantaneous, sometimes contextless 'reportage' and re-mediates it within a "contemplative space" in which deeper truths stand a better chance of being revealed and understood. He captures headlines and articles about worldwide, often catastrophic, events from the 24/7 "space of flows" (Manuel Castells), demanding that we *see*, *read* and *listen*. He juxtaposes/opposes multiple media streams – image, text, sound – within single works, bombarding our senses until we are able (if we are able) to separate the 'signal' from the 'noise': "narratives are like temporal filters whose function is to transform the emotive charge linked to the event into ... units of information capable of giving rise to something like meaning." (Lyotard) While Takeo rescues some of these events from potential obscurity, he does not pretend to present them factually. He does, however, want us to experience them *authentically*.

Occasionally, Takeo leaves the news feeds in flux, allowing them to be of the 'now' – but people, places and events are compressed and combined, so that we cannot discern individual threads within the cacophony of data. Of his work *Continuum...* (2007), Takeo states: "Given that no individual can absorb and process the totality of this information, how do we form our sense of the present?" More and more, Internet media blur the distinction between information/disinformation, journalism/aesthetics and local/global. But, as Peter Lunenfeld writes, "the slashes turn out to be permeable membranes rather than leakproof barriers." If you are not 'here' or 'there', you are somewhere in the liminal space of digital networks, uploading-transmitting or downloading-receiving information. Often, we are doing both at the same time. Yet, Takeo

sets himself the daunting task of asking people to slow down; to stop clicking onto the next thing; to be *here* now; to seek a context when none is offered; to discern truth from lies.

Indeed, the central question that surfaces time and again in Takeo's work is "what 'truth' can the artist relate that the journalist cannot?" It is as if his entire news media oeuvre represents a singular response to Paul Virilio's lament about the first 'televisual' war (Persian Gulf, 1991): "image compression, which allows information to be stored, has promoted the compression of history and finally the disappearance of the event!" In *Co~dec* (2003) – whose title refers to the processes of encoding and decoding digital data streams – the image sequences are so condensed that we are left with only vague traces of form and brilliant colour. Here, we must question what information is *missing*, and be aware of the danger of *leaving out*, of skewing history in favour of the loudest, most disseminated voices.

Events taking place elsewhere become 'real' by being photo- or video-graphed, even more so when they are *transmitted* in real-time. While 'reality' is Takeo's ground zero, he abstracts machine-generated simulacra by, for instance, removing all but one colour of the RGB spectrum – giving the effect of animated colour field paintings; or collaging texts in multiple languages into a single image – so that the text becomes an image; or texturizing visuals with text – where a raster-like cross-stitch pattern transforms the ubiquitous 'flat' screen into a dense, tactile surface, as in *Reflection (hope and reconciliation)* (2008). In artworks such as the */abstraction/* series (2001), the boundary between text and image is virtually erased, allowing the viewer to experience language as visual form, out of which meaning can either be extracted or imposed. Here text functions as image, but in other works, like {*Transcription*} (2006), the flickering characters are more akin to machine-code, and as such, the majority of us view the oscillating lines as some kind of unintelligible, foreign language which we will never be able to decipher. We are simultaneously given time to watch and prevented from seeing clearly. The multiple channels of data partially obscure one another, vie for our attention and force us to extract our own meanings from the data fog.

Related to Takeo's question of 'truth' is: how can the artist change the way we perceive the lives (and suffering) of others, when the only way we experience them at all is telematically? Of photography, Susan Sontag famously wrote, "images have been reproached as suffering at a distance, as if there were any other way of watching. But watching up close – without mediation of an image – is still just watching." More and more of us have the technology to *watch*, in real-time, and from great distances. Has this 'presence-at-a-distance' made us more compassionate? More engaged? More able to respond? And, can people watching, reading and/or hearing events at a distance adequately filter the *accounts* of victims or witnesses who, themselves, use images, words and sounds to represent, record and recall these events? Furthermore, it seems that even those caught up in the real time and place of catastrophic events – as they unfold – experience them *as if* they are mediated. For instance, to many, the attack on the World Trade Center (WTC), New York, September 11, 2001, and the 2011 Earthquake and Tsunami in Japan – were like *watching a movie*. "We can perceive the collapse of the WTC towers as the climactic conclusion of twentieth-century art's passion for the Real – the terrorists themselves did not do it primarily to provoke

real material damage but for the spectacular effect of it." (Slavoj Zizek) The task of conveying 'reality' in today's hyper-mediated world is almost impossible; yet this is Takeo's intent.

Although Takeo uses text and sound in many of his pieces, his works primarily stress the heavy emphasis our culture places on visual display. In 1995, Peter Wollen wrote that this excess (Guy Debord's "society of the spectacle") has "the effect of concealing the truth of the society that produces it, providing the viewer with an unending stream of images that might best be understood ... as effacing any trace of the symbolic, condemning the viewer to a world in which we can see everything but understand nothing – allowing us viewer-victims, in Debord's phrase, only 'a random choice of ephemera'."

Photographic and video images are both objective (they are recorded by machines) and subjective (they are always *taken* from particular points of view). Thus, they are both copies/transcriptions of the 'real' and interpretations of it; for seeing is not only a physical function of the eye, but also the brain, where past and present converge to create distinctly individual perceptions.

Takeo's use of language – which is mostly meant to be *seen* rather than *read* – also serves to remind us that it is but one *visible* layer of a multi-layered text: the others remain unseen and are deciphered by the machine: these are the program language(s) and their most abstracted representation: binary code. Thus, for Takeo, all textual layers (natural language, code, and digits) are, for the most part, opaque: the opposite of what the 'Information Age' purports to be.

Encoded, digitized information is re-inscribed every time it is accessed. That is, the machine *performs* a set of instructions, in effect bringing them to life. This information is fleeting (not indelible), a mere trace of its original inscription, yet it is lodged in machine memory for years to come. It is past, present and future, "freed from the supposedly immediate conditions of time and space," re-producing 'signs' of past events as "available, presentable and reactualizable memory." (Lyotard)

Persistence and ubiquity have come to represent collective memory, regardless of 'truth' or context. For Takeo, news stories and their headlines serve different functions than captions; the latter hold more journalistic weight, since they traditionally state facts, such as names, places and dates. In *Headlines...* (2006) the only caption is today's date. Unfortunately, captions often mirror institutional or personal biases; and image altering has become increasingly common because of the ubiquity and ease of use of software such as Adobe Photoshop. Takeo asks us to be vigilant about both our news sources and the ever-present negation of 'truth' due to subjective labels, image manipulation and the immediacy with which lies are propagated online.

The majority of Takeo's works are set against a "black screen" that can be read as both negative space and the '0' or off-switch of digital code; but it also evokes the immersive space of the cinema, the wish to block out all light other than the light bouncing off the screen. However, the light of *live-broadcasts* – produced

by televisions and networked computers – "possess(es) that 'real hue' (of fiber optics) ... that light of immediacy, that sudden credibility that neither painting nor photography nor even cinema ever had." (Virilio) Unlike cinema, these 'real hues' can seduce us into believing that what we are seeing is the 'truth'.

The blackness of the screen/browser window also frames the image. Takeo points to how "framing" occurs in the individual human choices (subjectivity) behind inscription and remembering. To select events to be remembered is to exclude others. Every view is a partial view. Every view is *tinted* (or tainted) by this subjectivity. Additionally, Takeo employs other formal devices – such as decorative geometric borders, binary animations, and in one case, text in the 'margins' – to frame his images. He overlays his images/ texts with meshes or grids, sometimes barely visible, other times very well defined, to remind us that the seemingly organic shapes are actually millions of square pixels laid side-by-side. Finally, his text often functions as *texture*; it is as though his images were *hand-woven* rather than digitally processed and machine rendered; his attention to detail, too, reflects his preoccupation with craft and structure.

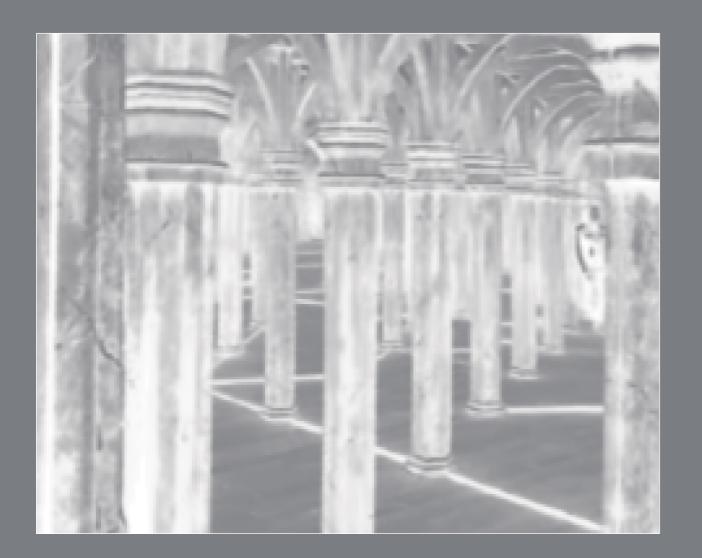
In Takeo's RGB-spectrum composition +*Requiem*+ (2003), text is exiled to the borders. The images, in the centre, are 'bricked', red and black, and lament the inability of individuals to memorialize everything they 'should'. The work's framing captions reveal what the images do not; stories of violent and historic tragedies of our time. Conversely, in *<event>* (2004), the textual layer is integrated into the centre of the frame, acting as a type of structural mask that ironically (because we cannot read it) gives its cloudy visuals some clarity as we are allowed to select and apply different colour filters to the artwork's underlying video streams.

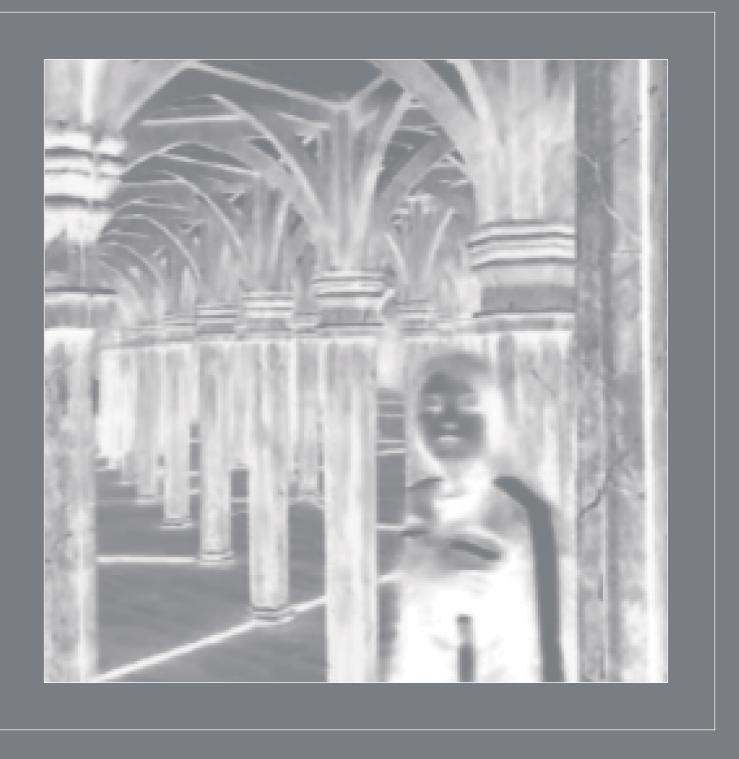
We can also choose between multiple versions of [Fallujah.Iraq.31/03/2004] (2004-5). In one, we watch the event through a framed mesh. The looped sequence is divided into vertical panels; the image never changes. Another iteration has neither mesh nor frame. We hear the same voice. The sounds are disconcerting. We observe a series of video clips, glimpsed as if through a smoky haze. Texts, in various fonts and sizes, are gradually introduced (and are briefly readable) and overlaid, eventually obscuring the images. The blackness of the window, and the various shades of grey characters *seem* to give the image more definition and depth, yet, eventually neither is readable. The shifting, unnatural hues of the images – purple/red, yellow/green, aqua/blue – give them an unreal and synthetic aura. We are both aware of the 'reality' of what happened and the way that reportage colours how we view the narrative.

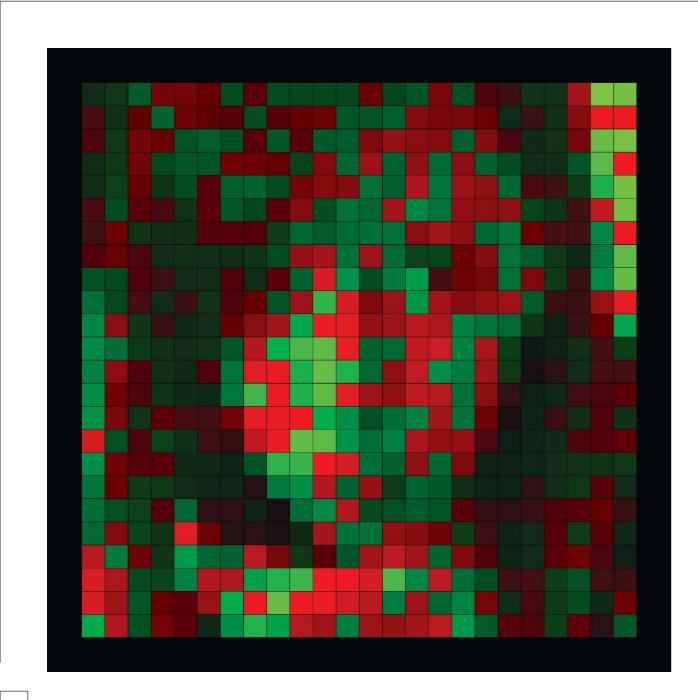
Our senses are constantly assaulted by media, both in public space and on the Internet: "sound and image, voice and text have become mere effects on the surface, or to put it better, the interface for the consumer." (Friedrich Kittler) Conversely, new, portable, affordable technologies have made it simple for almost anyone, anywhere to record an event and immediately transmit it to a worldwide audience. Yet, as Takeo so astutely shows, neither the abundance of information nor the ability to broadcast it results in knowledge, liberty or understanding. His constant refrain is that it is now more important than ever to parse the data to arrive at our own truth.

# MOBILE DEVICES

Personal Interfaces and Ubiguitous Data







opposite: Encoded (love...), 2004, archive digital print (wall-mounted and destroyed after each installation), dimensions variable

assisted by: Tomislav Ferenc (industrial fabrication)

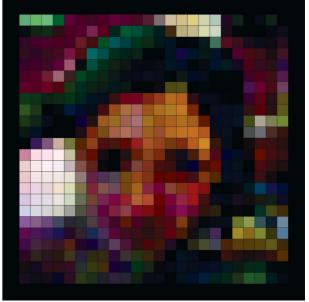
Encoded (love...) is composed from a single MMS media message generated by a mobile phone. The message's embedded photograph has been arbitrarily cropped to a square format and reduced to a greyscale 24 by 24 pixel grid, while its text component has been transcribed into a binary (red/green) 24 by 24 Data Matrix barcode. The two visual elements have then been re-composited into a single image that retains all the basic information contained within the original media message.

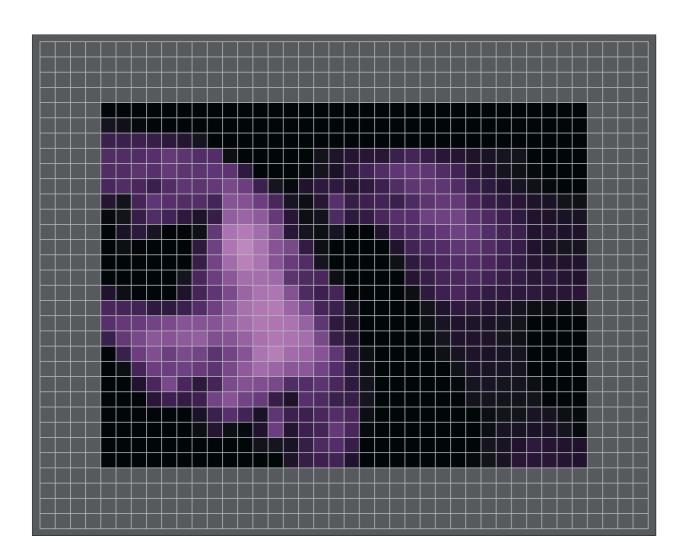


#### Encoded (portraits of T. + L. Ferenc), 2004, archive digital prints, 100 x 100 cm. (each)

assisted by: Tomislav Ferenc (industrial fabrication)

[process] A husband and wife were requested to photograph each other with their own mobile phones and to choose a picture set that they felt represented themselves as a couple. The two selected images were then algorithmically manipulated according to a predefined procedure in which the underlying digital structure of each picture would be mixed with the colour information from its counterpart.



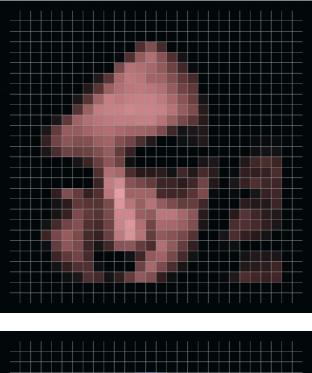


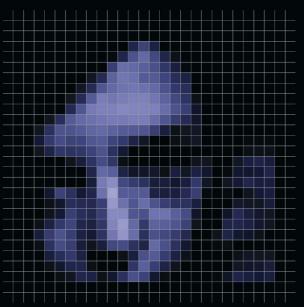
Encoded Presence (auto-portrait of E. Puente), 2005, algorithmic computer installation (Flash), dimensions variable

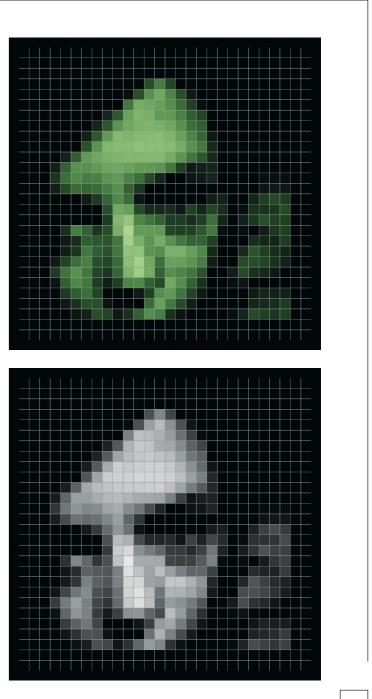
assisted by: Emma Puente (cinematography) and Patrick Simons (sound design) online version: www.takeo.org/nspace/ns012

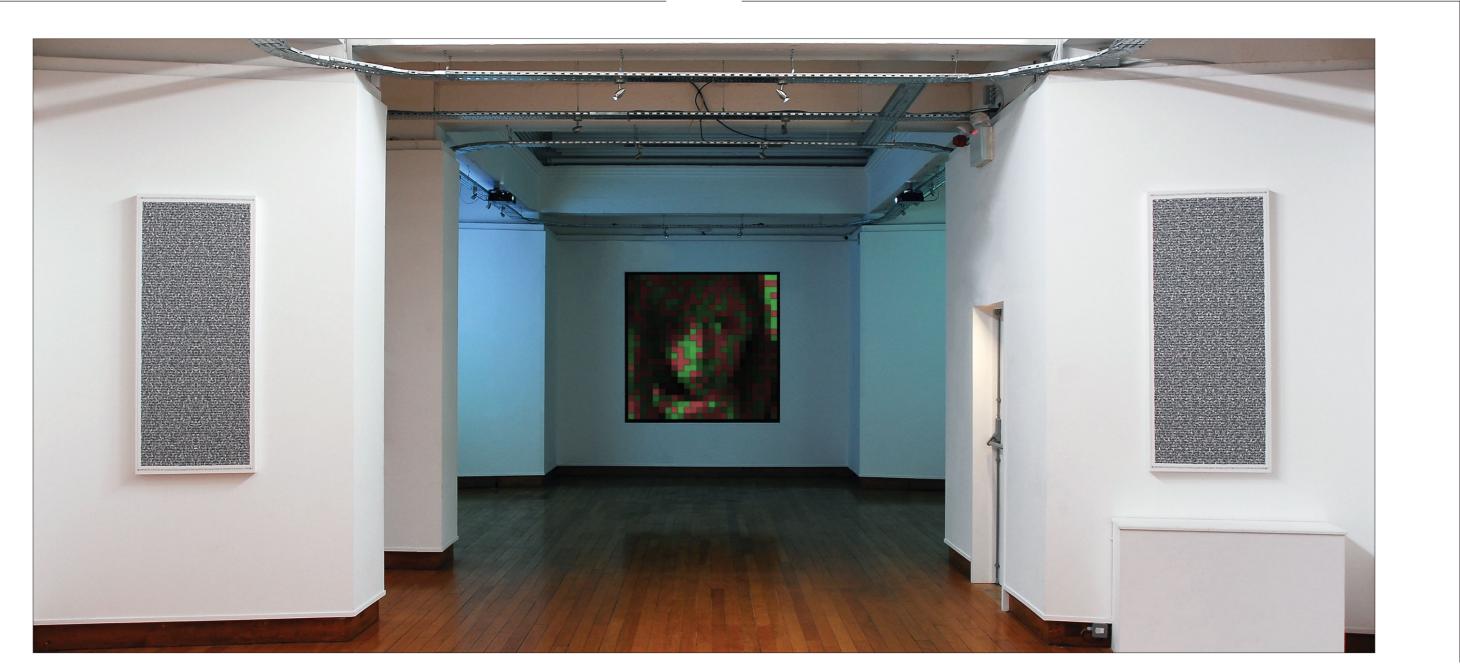
[process] Without artistic direction or interference, and using only a mobile phone as a recording instrument, a subject was requested to capture cinematic content of herself interpreting the notion of 'auto-portrait'. From the resulting audiovisual sequences a single nine second media stream was extracted and utilised as the exclusive source material for a series of artworks.

opposite: 4 colourway - r.g.b.a., 2005, archive digital prints encased in acrylic, 70 x 70 cm. (each)



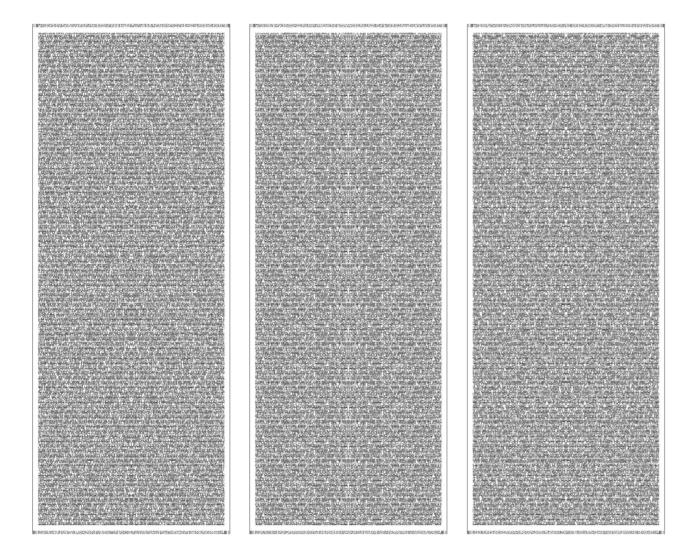






Addressable Memory: installation at Peterborough Museum & Art Gallery, UK, 2007

# photograph by David Steele



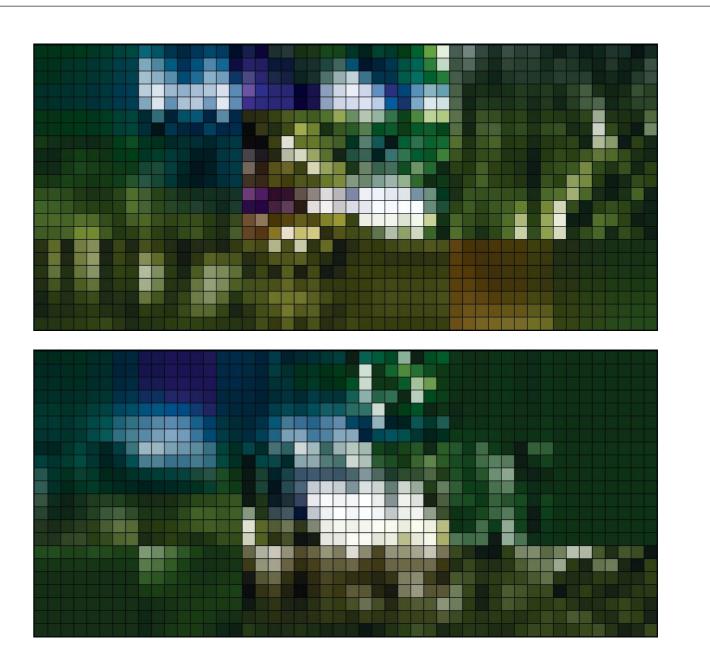
Textweave (J. Puente + G. Hands), 2007, archive digital canvases (set of 6), 61 x 153 cm. (each)

funded by: The Esmée Fairbairn Foundation above: 15/08/2007, 16/08/2007 and 17/08/2007, opposite: detail of 18/08/2007

Textweave (J. Puente + G. Hands) translates an ongoing SMS conversation between two young lovers into a series of digital canvases. The visual elements of each unit have been generated from a single pair of messages containing the unscripted thoughts and emotions of the couple from a specific day. Although the lovers' narrative has been algorithmically processed into aesthetic forms, it is still possible to extract the original texts as each is losslessly embedded in the visual structure.







**Urban\_scape(s)**, 2005, algorithmic computer installation (Flash), dimensions variable assisted by: Emma Puente (cinematography)

online version: www.takeo.org/nspace/ns013 [source] night-time mobile phone video recorded on 23/04/2005 in Birmingham (M6 motorway), UK

054



Re\_collection, 2005, algorithmic computer/mobile-phone installation (Flash), dimensions variable

online version: www.takeo.org/nspace/ns016 [source] mobile phone video recorded on 08/05/2005 in Hyde Park, London, UK

The desire to be remembered has always been a part of the human condition; we have forever sought to devise ways of commemoration that would outlast our corporeal selves. The adaptation of binary, the universal language and cornerstone of the digital domain, has afforded us yet another path towards attaining this aspiration. Binary systems now permeate our society, available to us persistently, in all places. We sample, organise and archive, creating personal repositories for our recorded lives. We distribute our digitised memories, trading fragments of our experiences with strangers. Human memory is stored in machine memory, retrievable in an instant; while networks facilitate the juxtaposition and blending of these finite narratives. Why do individuals inherently seek to place their personal accounts, each transient and subtly unique, within a universal context? Are the technologies we create to mediate this process intrinsically imbued with such underlying intentions?

A captured moment, precious and instilled with personal significance, provides both the inspiration and source material for Re\_collection. The recorded sequence - stripped of resolution and apparent depth - has become depersonalised, reduced to a minimalist aesthetic that reveals archetypal forms and evokes their emotional connotations. Through this purposeful paring back of detail, the relationship between personal and universal is questioned; it is a search for the elusive underlying 'truth' to these, our most intimate recollections that exist between dream and remembrance.





IN MORE THREE REPORTS AND A STREET HE









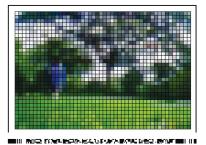


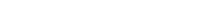


056

III ROQ FRANKAUDARABARDEQ RAFINI III

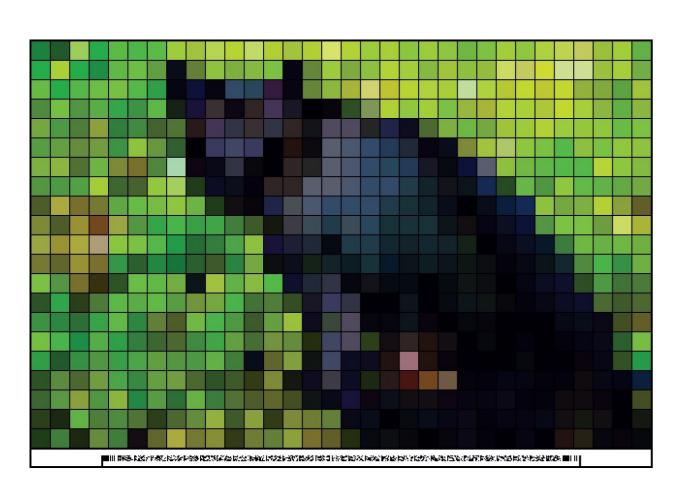












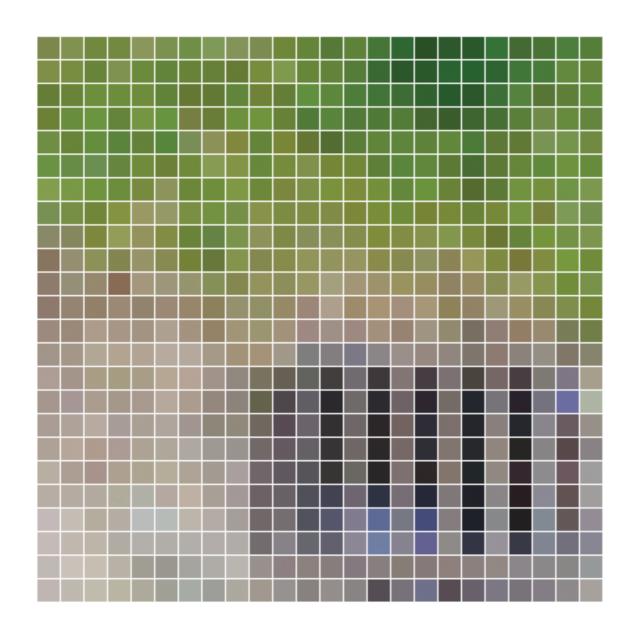
Encoded (portrait of Cleo), 2005, algorithmic computer/mobile-phone/print installation (Flash), dimensions variable

assisted by: Tomislav Ferenc (industrial fabrication) [source] MMS text and video received on 31/07/2005

[barcode translation] "M. a glimpse at Cleo, her side is where she is healing from her operation to curtail her kitten bearing potential! I am sure you can't make out much as was taken with not very advanced equipment. D."

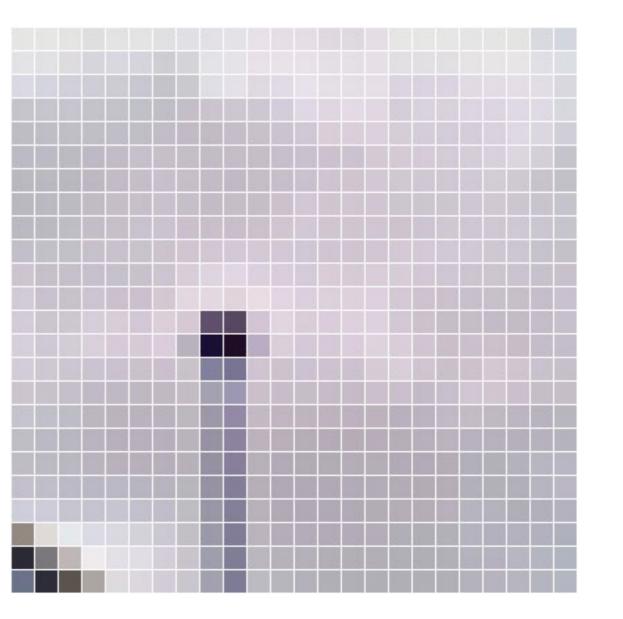


opposite: **untitled (diary study)**, 2006, archive digital print, dimensions variable



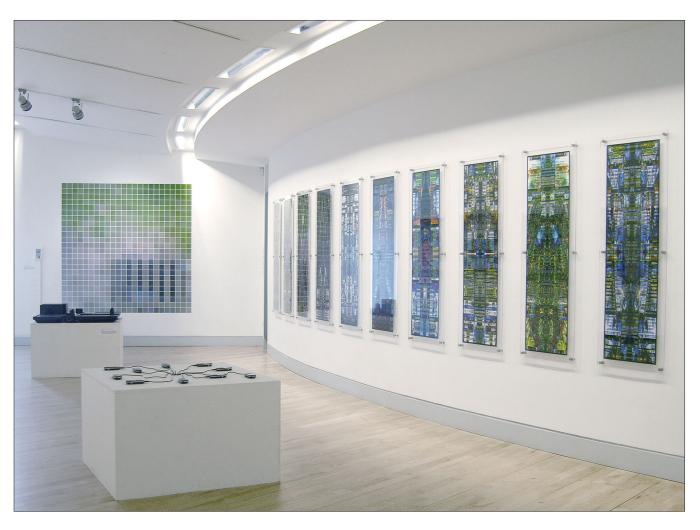
Landscapes, 2005, archive digital prints (wall-mounted and destroyed after each installation), dimensions variable

assisted by: Tomislav Ferenc (industrial fabrication) above: (grass + pavement), opposite: (sky + lamppost)



The *Landscape* series is generated from mobile phone images of suburban environments. Each source photograph is batch-processed into a 24 by 24 pixel structure and output via a large-format digital print system. The finished artworks are then affixed (in the tradition of Sol LeWitt) directly onto architectural surfaces and remain for a limited period, after which they are removed and destroyed.





Addressable Memory: installation at the Brindley Arts Centre, Cheshire, UK, 2008

photographs by Takeo



#### Sequence<sup>n</sup> (carousel), 2007, archive digital canvases (set of 8), 122 x 91.5 cm. (each)

assisted by: Tomislav Ferenc (industrial fabrication) funded by: The Esmée Fairbairn Foundation [source] mobile phone video recorded on 22/06/2006 in Chamberlain Square, Birmingham, UK

Sequence<sup>n</sup> (carousel) is composed exclusively from a single low-resolution (128x96 pixel) mobile phone video that has been deconstructed into its constituent raw image frames. From these stills, new images were algorithmically produced by extracting the alpha channel (greyscale) from each frame and combining it with the average colour fields from the preceding and subsequent frames. The resulting images were augmented with a 16x12 grid structure and meta-data tag, and then transcribed to canvas via an archive digital print process.





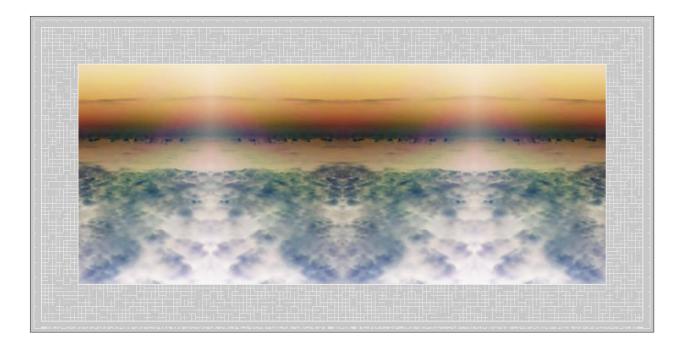








The Sequence<sup>n</sup> series of artworks are creative explorations utilising modern digital recording formats and ubiquitous mobile technologies within a technical and artistic framework informed by early cinema and motion picture devices. Within today's culture of moving-image saturation, these works seek to extend the tradition of lens-based practice by augmenting the fundamental principles of the genre with real-time computational processes and outputs. In this scenario, compositional elements such as the still frame and linear soundclip are unbound from their finite states and give rise to unending moments and ephemeral narratives.



Sequence<sup>n</sup> (horizon), 2007, algorithmic computer installation (Flash), dimensions variable

funded by: The Esmée Fairbairn Foundation online version: www.takeo.org/nspace/ns025

[process] A mobile phone was used to record a two minute audiovisual sequence from which one thousand isolated moments in time (single image frames) and eleven short audio clips were extracted. All cinematic effects were achieved during capture through the phone's integrated processing functions. The images and sounds were then recompiled into a single algorithmic construct that endlessly recombines its source materials into an ever-changing digital montage.

[location] Atlantic Ocean (~12,000 m. AMSL) at 11:13GMT on 13/08/2007



Sequence<sup>n</sup> (echo), 2008, algorithmic computer installation (Flash), dimensions variable

assisted by: Emma Puente (cinematography) online version: www.takeo.org/nspace/ns026

[context] The composition references the conceptual process used in the creation of the film, *The Five Obstructions* by Lars Von Trier and Jørgen Leth, in which Trier challenges fellow filmmaker and mentor Leth to remake one of his most celebrated short films, *The Perfect Human*, five times, each with a different set of obstructions.

[obstructions] 1. theme of 'first memory' 2. no use of traditional AV equipment 3. audio and video must be recorded separately 4. the final composition must be a non-linear structure 5. the film edit can only include time-code numbers made of 0s and 1s

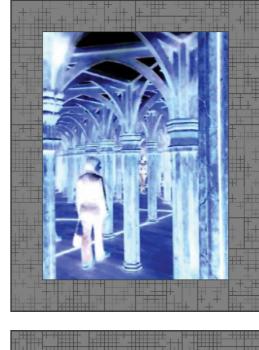


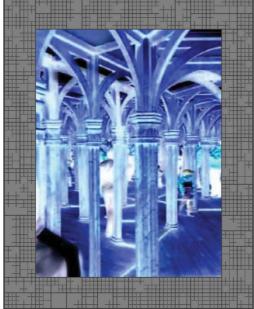
Sequence<sup>n</sup> (labyrinth), 2007, algorithmic computer/mobile-phone installation (Flash), dimensions variable

funded by: The Esmée Fairbairn Foundation online version: www.takeo.org/nspace/ns024

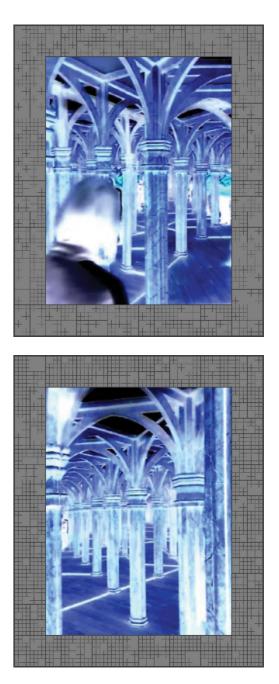
[process] Three minutes of audiovisual footage was captured and manipulated with the integrated software of a mobile phone. From this material, a library of short audio and video segments was generated and incorporated into a formal digital structure. Without the influence of human prejudice, an algorithmic process remixes these media elements into a continuous recollection of that moment.

[location] Mirror Labyrinth, Petrin Hill, Prague, CZ at 18:26GMT on 08/04/2007





068



In 1959, the novelist C.P. Snow gave a series of lectures at Cambridge. Later collected and published under the title *The Two Cultures*, the thrust of his argument was the danger inherent when two cultural practices of significant value begin to cleave away from one another for reasons related to their own internal value systems. For Snow, the obvious danger in the distinctly different paths, chosen by the Arts on the one hand and Science on the other, was the lack of cultural understanding that these two powerful systems promoted within themselves. Despite the shortcomings of each domain as a comprehensive means of understanding the world, both cultures were prone to arrogating to themselves the singular right to express ideas about it. Snow's experience of both worlds made him wary: he had been a chemist before he was a novelist, and understood the temptations of a partial account being mistaken for a comprehensive one. Neither Art's assertion of its moral force, its sentimental understanding of the human problem of being alive nor its assumed link to the spiritual, made it a singular account of humanity. Science, for its part, preferred to point at its rationality, its apparently inherent progressive nature and its internal consistency as a means of making its case. Snow's shock at discovering artist colleagues without an understanding of the basic laws of thermodynamics, or of scientists who couldn't understand what Shakespeare was addressing, provoked a furore that lasted a generation. Art and Science in the University were rent asunder on what appeared to be a permanent basis, with each citing the intensity of study required for understanding as the rationale for a separate existence.

This bifurcation of cultural destiny would have serious implications for the wider culture during the next thirty-year period. The most obvious manifestations in Science could be found in destructive practices, like arms manufacturing or ecologically-disastrous exploitation of natural resources, compounded by culturally-offensive notions, such as the unscrupulous genetic engineering of crops and the cloning of pets. The Arts, for their part, failed to live up to their own hype, with alienating post-modernism replacing sincerity with cynicism, conceptual art asserting intellectual and artistic superiority over craft practice, and an increasingly difficult case that argued that everything was, or could be, art.

It was against this background that artists first began experimenting with computers for the art-making process. Artists had always been aware that computer technology held excellent possibilities as a medium through which their work might be broadcast or encountered, but the understanding of the processes remained (and for some still remains) irrelevant. Computer scientists, for their part, saw that the creative application of computing provided rich material for challenging and extending the range of computer practice. Once Stockhausen or the Fluxus artists, for example, began using computer technologies, incorporating them into the essence of their work, the possible route through which these two cultures might reunite became apparent.

Of course, the role of technology in the Arts matches that of its role in society in general. Before the advent of the personal computer and graphical user interfaces (GUIs), engaging with computers demanded strong technical skills and an understanding of how hardware and software operated. Artists working with the technologies available in the 'sixties and 'seventies did so through collaboration with computer scientists, as there was simply no other way to get access to the resources or produce satisfying results. That they were prepared to do so indicated just how well some artists understood the potential of the technology. The experience of working in a hands-on way convinced many that, with the growth in computing power and the taming of programming by software designers, a future where the computer was an important creative tool could not be far away. With the introduction of GUIs, and the marketing power of Microsoft, the computer has become a regular feature of 21st-century life, a now familiar object, where once it was assumed to belong to a world of exotic specialisation.

This convenient division of labour has undergone a profound reassessment of late. With the advent of computers in the creative process, and the curiosity of artists and scientists about the purposes to which they may be put, a new type of cultural divide is emerging. Put simply, it becomes a competition between those who use computers and networks to develop their ideas into whatever form they choose, and those who persist in seeing the practice of computing as alien to the human experience. These populations cross the old boundaries of Art and Science, and create new ones between the digital and analogue. For this reason, if no other, the work of Michael Takeo Magruder should be of some direct interest to us.

So, what of the computer as means for creativity, or how can we reunite our sense of artistry with the scientific community? The ubiquity of the computer is one thing, but agreement on its appropriate use is far from settled.

These thoughts clearly troubled some of the visitors to Takeo's *Addressable Memory* (2007-09) exhibition. How can the use of a computer be called art, or the results be considered in the context of an exhibition in an art gallery? For many visitors, making remarks in the various comments books that accompanied the show, there was an easy acceptance of the aesthetic properties of the work being displayed. "It is very beautiful", wrote one visitor to the exhibition, "but it isn't art." The capacity of the computer to be an appropriate tool for art is rejected despite the evidence that the results can move the viewer, or make them think: key criteria not only of art, but of good art. The communicative, the transformative, the original, the provocative are all represented, and still the prejudice remains. I want to examine a few of Takeo's works in detail, and emphasise the extent to which, having engaged with the technology of his time, Takeo's interpretation of how and why computer technologies lead us to a different way of seeing the world manifests. The first of these examples is *Sequence<sup>n</sup>* [carousel] (2007), a set of eight imposing canvases, still moments taken from a mobile phone sequence, similar to the type presented in the Encoded series (2004-05) of artworks. These stills, blown up from mobile phone size to more than a metre in width, feel like abstractions, borrowing angularity from Cubism via the limitation of the pixel-based digital sensor that recorded them. The subject matter, perhaps arbitrarily chosen, but certainly consistent with the technological framework Takeo wants us to refer to, is a Victorian carousel. The functionality and spontaneity of the mobile phone is effectively universal in modern Western societies. How many of us ever carried a camera so often, or used it so frequently in the days when we had physically to take the film to the processing labs? As such, whatever the occasion or opportunity, our desire to keep in constant touch with one another has bequeathed to us a further legacy; the possession of a small, discreet camera tucked inside our pocket and as useful to us as a set of keys or a wallet. The large panels expand each of the sequence of images to just about the point of abstraction, the moment where the colours and shapes are about to dissolve into pictorial volumes and tonal forces. The viewer can, if they squint, make out something of the beautiful gilding and white-painted horses, the children riding and laughing as the merry-go-round turns. Just as easily as squinting, reinforcing the theme of the ubiquity of technological support, it is possible to reformulate the picture, to decompress it by recompressing it in the viewfinder of a mobile phone camera installed beside the canvases. The image reconstitutes itself as the original digital recording, a complete circle brought about through the simplest means.

Technology's role as a gauze through which we view the world is a regular subject of Takeo's work. *{Transcription}* (2006), first exhibited at the Courtauld Institute of Art in London, plays strongly on this theme. From the distance we approach the work, in this case looking down a deep stairwell, we are aware at the greatest height only of abstract changing shapes and colours, and a dull roar of deep static. As we descend the stairs, the images become clearer, the audio sharper. They are images of the news, today's news, connecting our experience of the art with our broader cultural and social life, portraying as they do the preoccupations of the media of the moment. But there is more to this. The viewer becomes aware that the images are not being presented in some pure, clean way, however contemporaneous to their publication, but viewed through a grid of digital pixels. These look like exotic hieroglyphics superimposed on the images of the news, as if some coding and filtering process has taken place. Compounded by the experience of the distorted sound that accompanies them, the effect of the procession of images slowly merging in and out of one another becomes hypnotic. Lower down the stairs, the clarity of the images gives way to the dominance of the digital frame through which we see them. This renders the pictures indecipherable, except as colour and a sinister movement, with the matrix-like framework now controlling the foreground.

In a work like *Sequence*<sup>n</sup> [*labyrinth*] (2007), this sense of foreboding continues in a world populated by identifiable moving figures. The architectural forms of the Mirror Labyrinth on Petrin Hill in Prague provide a constant background to a collection of ghostly tourists. They wander around the columns like smiling apparitions, unaware of their conversion into spirits by the in-processing software on Takeo's mobile phone.

The grey-blue tinge of unreality makes the steel columns look like glass, with the transparent sightseers popping in and out of the picture as the sequence unfolds. The tourists wander aimlessly around the pylons, touching them as if to check they are real. The effect is to interpret these gestures as experiments in connecting, as if the subjects are testing their own capacity to touch, having been rendered into the scene as ghosts. One stands transfixed, pointing his camera into the near distance, as if the only way he can now experience a place is by recording it in this way.

The soundscapes of Takeo's works are often rumbling and filled with foreboding. Invariably drawn from the material that provides the visual effects, the impact of the sound is to deepen the atmosphere, and make the point, given the absence or marginalisation of human or natural sounds, that there is a distinct sound to activities of the technology. In *<event>* (2004), the banal news commentaries and their stagey style are treated with radio static, squeezed and degraded, and sharpened with distortion. The printed text through which we glimpse the images of the news, picks up some of the content of the voice, combining print, sound and image in a melange of media. These attempts to reinforce the messages of the news are lost in the irritation of their failure to provide a lucid account of the actual story. The presentation militates against such a thing, but the excruciating sound forces the listener to dismiss the content. The viewer's control of the colour filter overlaid onto the text (and consequently the news images) serves to reinforce the distortions of the sound, trivialising the stories, a feature made more prominent by the redundancy of the news presented from years ago.

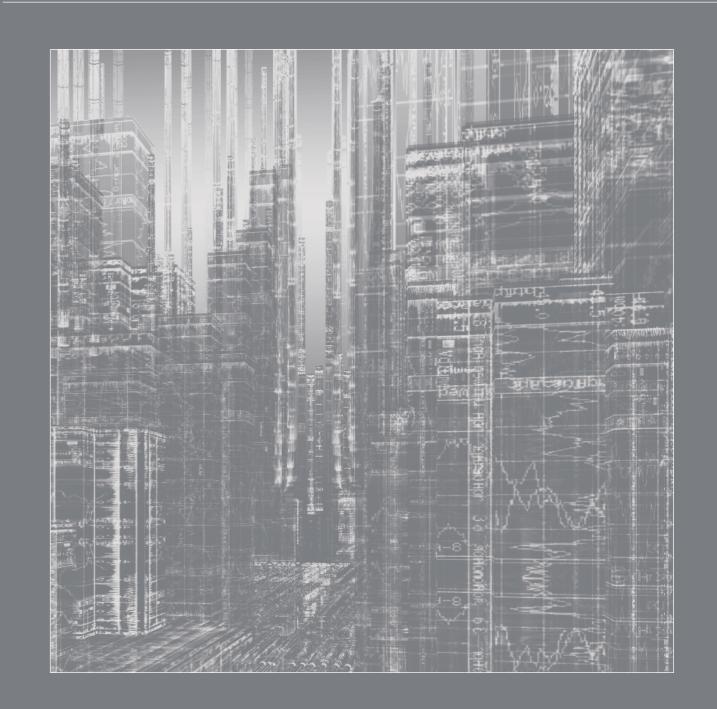
The final artwork I want to consider is, for me, the most important in understanding the relationship between technology and reality. If the digital signals Takeo creates are just 0s and 1s, then they can, of course, be reformulated. This understanding of the malleability of the subject matter, data itself, is strongly manifest in *Data\_cosm* (2005). The stream of human and machine consciousness being poured out of the network becomes rendered into an ever-changing model of information structures, again drawn from the news streaming sites that Takeo clearly finds so engaging. This works like an expanding universe of data, creating colour and texture out of the raw material, repurposing it into a scale model of the technological cosmos that has spawned it. The abstraction into form is the obvious direction for the massive volumes of data, rendered useless once the news cycle has moved on except for the trace it can leave behind in Takeo's work. As a self-organising molecule in a vast self-organising space of data, the sheer scale of what we have unleashed in the form of network technology becomes apparent.

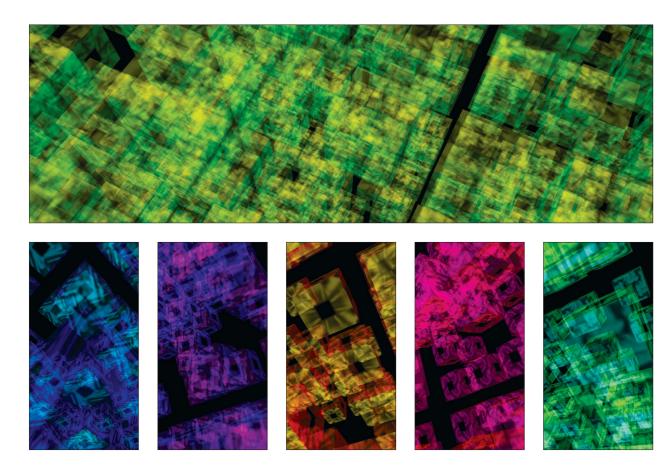
The frontier that Takeo has crossed is a significant one. Combining a deep knowledge of the technology with a creative vision, he adumbrates the style and substance of new ways of working, in computing and in art. This work depends on significant and symbiotic links into both worlds, and uses those as the means of expression and the method of presentation. The use of the resources of the digital world is instinctive and instructive, acknowledging as it does the motivations of the artists of every generation and combining these with the transformative technology of his own time.

# VIRTUAL WORLDS

ISOLATED MICROCOSMS AND EXPANDED METAVERSES







#### { Matrix }, 2004, virtual data-sculptures (VRML), dimensions variable

#### online version: www.takeo.org/nspace/ns008

{ Matrix } is a series of six data-sculptures that have been constructed exclusively from single news articles parsed from the BBC International website on 08/01/2004. From each article, one thousand bits of text, image and audio information were sampled and utilised as the sole material to generate a virtual form. For the creation of each sculpture, the text string has been converted to a binary sequence and related to a 10x10x10 matrix of cubes in which all 0s remain cubes and 1s become null space. This lattice forms the basic skeletal structure for the sculpture on which the image sample is applied to as a semi-transparent repeating surface texture. The audio sequence has been converted into a looping stereo stream spatially linked to the cubic matrix, thus creating a dynamic soundscape that evolves according to the user's passage through and deviation from the centre point of the composition.

Although the sculptural forms are abstract in an informational sense to human perception, the artwork exhibits a perfect archival state, for the data from which they are comprised can be extracted in totality though reverse engineering of the aesthetic framework. This inherent characteristic of losslessness elevates the work into a dual-format existence as each individual form is both an aesthetic entity and an information receptacle.

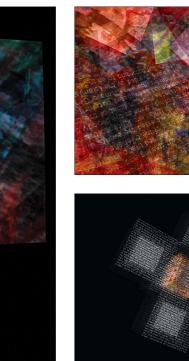


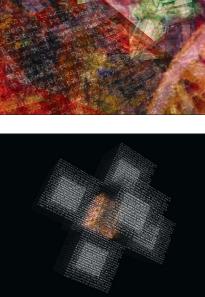
Data\_cosm, 2005, virtual environment (VRML, Java, Flash), dimensions variable

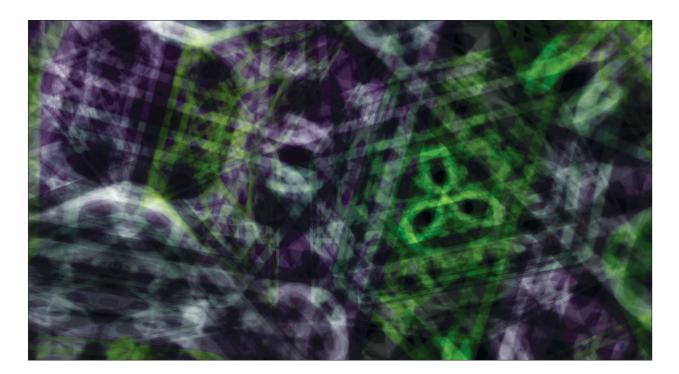
assisted by: Drew Baker (3D visualisation) and David Steele (backend programming) commissioned by: Arts Council England online version: www.takeo.org/nspace/ns015 [installation image] DRHA (Digital Resources for the Humanities and Arts), Dartington College of Arts, UK, 2006

Data cosm is an examination of the chronological archives generated by news media and of the dynamic information structures that mediate this process. The core architecture of the composition is defined by a Virtual Reality Modeling Language (VRML) framework that is augmented by Java and Flash code-sets. Every day a Java application samples the live BBC Internet news service and constructs a database containing the website's entire collection of articles. One hundred news items are randomly selected for the creation of a text and image dataset that will remain until the next day. This data is bonded to the VRML skeleton though a series of embedded Flash elements, thus completing the genesis of the synthetic realm.

An individual can simultaneously interface with this virtual world though two viewpoints. The first, internal perspective is located at the absolute centre of the space. From this vantage point a seemingly infinite expanse of information is encountered - the unending sea of data that envelopes every aspect of our digital lives. In contrast, the second, externalised viewpoint reveals the nature of the composition as a sculptural body reminiscent of a crystalline form. Upon closer examination, the formation can be visually dissected into an interconnecting set of cubic structures that fluctuate according to a purposeful, yet irregular rhythm. The existence of the artwork as both a painterly expanse and a sculptural object seeks to question perceptual relationships within a given reality in which the macrocosmic appears to be contained by the microcosmic.





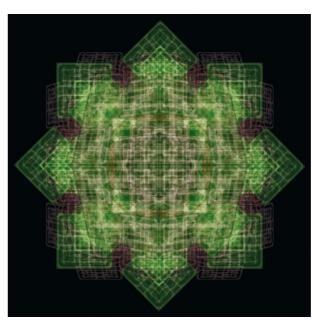


World[s], 2006, virtual data-sculptures (VRML, Flash), dimensions variable

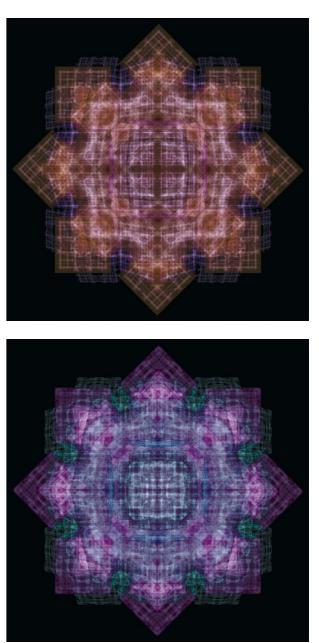
assisted by: Drew Baker (3D visualisation) online version: www.takeo.org/nspace/ns018

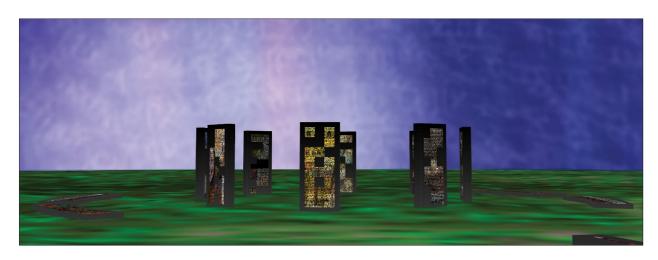
*World[s]* is a series of dynamic virtual sculptures generated exclusively from the word 'world' translated into the native script of society's most common languages. Each word in its text format is imported into a two-dimensional 32x32 pixel Flash file. The embedded characters are then vectorized, re-proportioned into a square configuration, and multiplied at 90° intervals and their respective mirrored states. The result is a group of mandala-esque entities less than 1KB in size that can be infinitely expanded without pixilation. These visual elements are then rasterized as 64x64 pixel bitmaps which are subsequently translated into sonic analogues. The audiovisual equivalents are inherently paired and provide the basis for the next stage of the artwork.

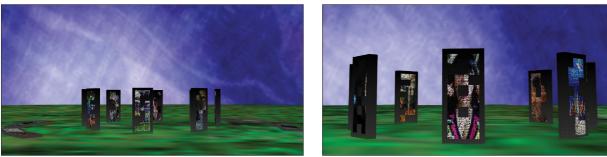
These pairings are then incorporated into a three-dimensional space defined by a set of VRML files. Within the virtual realm, a series of simple cubic structures oscillate at the terminal points of a central rotating star. Each structure is the summation of four possible rotational states (0°, 45°x, 45°y, 45°z) of a prototype cube that is texturized and auralized by a single pair. When a viewer selects one of these basic elements, the entire realm is destroyed and a new complex formation is created within the void. The newly generated architecture is derived entirely from the single prototype cube that was selected by the viewer. This cube is multiplied and arranged into a perfect 3x3x3 lattice. The lattice is then quadruplicated in a manner identical to its basic precursory structure, and an exponentially more complex 'world' is formed. Interacting with the furthest extremities or the innermost depths of the construct initiates a mechanism of self-destruction and an ensuing regeneration of the interface star. Though this process, a cyclic relationship between the work's evolutionary states is created.









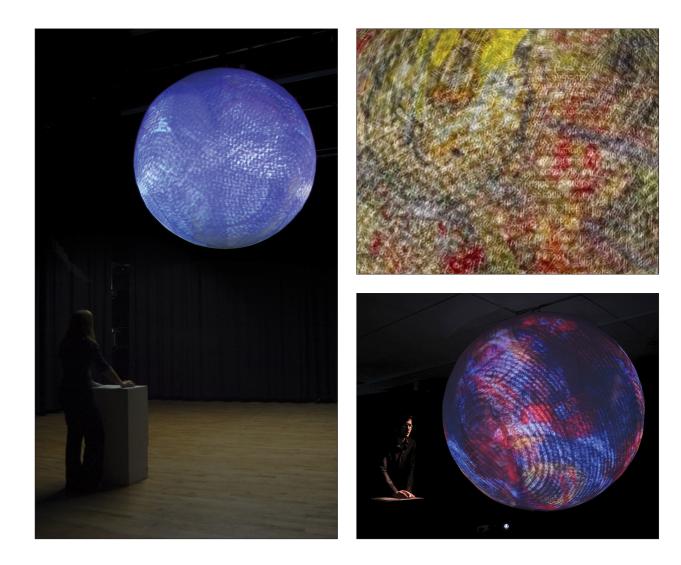


Monolith[s], 2006, virtual environment (VRML, Java, Flash), dimensions variable

assisted by: Drew Baker (3D visualisation) and David Steele (backend programming) commissioned by: Turbulence.org with funds from the National Endowment for the Arts, US online version: www.takeo.org/nspace/ns019

In *Monolith[s]*, temporal and spatial dimensions of a viewer's own immediate environment are absorbed and rearranged into a constantly evolving virtual realm in which icons of pre-history are combined with digitally complex refractions of how history materialises in the Information Age. The artwork's aesthetic atmosphere is synthesised in real-time by a collection of Java and Flash elements that stream Internet news feeds into an underlying VRML structure. The resulting geometric forms, which are in a constant state of flux, evoke early virtual reality graphics, while the world's soundscape is constructed from a blend of live Internet radio and spatialised sound loops.

The world and its components are formulated according to motifs and proportions of ancient architecture infused with fundamental mathematics of modern digital communication systems. Each genesis of the environment is unique, as mathematical randomisation is augmented by aspects from our own realities. Variables such as the time of day, the viewer's location on the Earth and the current position of the Earth in relation the sun are iteratively incorporated into the artwork, thus instilling into the realm functions of a rudimentary clock, global positioning system and solar calendar.



Data\_sphere, 2006, virtual/physical data-sculpture (VRML, Java, Flash), dimensions variable

assisted by: Drew Baker (3D visualisation), body>data>space (inflatable designs) and David Steele (backend programming) commissioned by: Arts Council England online version: www.takeo.org/nspace/ns020

[source] headline news articles from the live BBC internet news service sampled and algorithmically processed in real time [installation image: left] *Addressable Memory*, the Brindley Gallery, Cheshire, UK, 2008 [installation image: right] *Virtual/Physical Bodies*, Centre des Arts, Enghien-les-Bains, Paris, FR, 2008



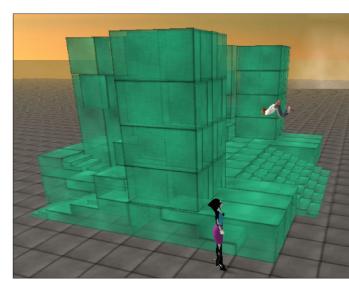
Rhythmic Space(s), 2007, virtual/physical performance installation (Second Life), dimensions variable

assisted by: Drew Baker (3D visualisation) and Prof. Richard Beacham (humanities research) commissioned by: Trans-Media-Akademie Hellerau for CyNetArt07 online documentation: www.takeo.org/nspace/sl001

*Rhythmic Space(s)* is a virtual/physical performance installation exploring the notion of "living space" as conceived by Swiss architect, theorist and pioneer of the modern theatre, Adolphe Appia. The artwork is based upon two of Appia's famous stage designs, The Descent of Orpheus into the Underworld (1912) and The Staircase (1909), that have been translated into a hybrid articulated structure existing within the metaverse of Second Life.

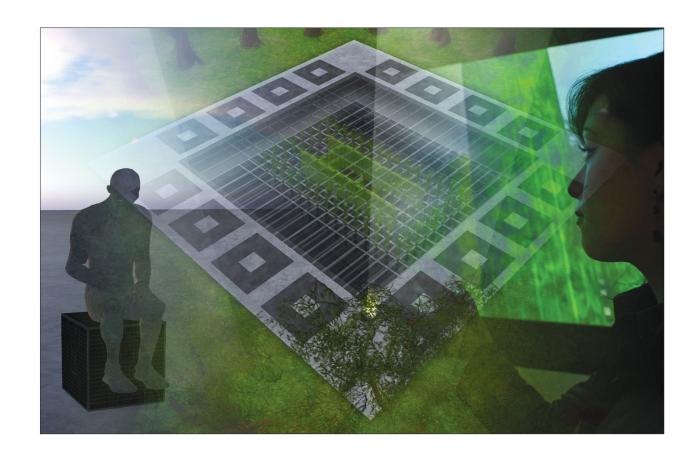
(virtual) performance iteration #1 - "Wind Dance" with: Yukito Obara (as *Gekitora Gackt*), Association for Dance Performance Telematics, Tokyo, JP assisted by: Ghislaine Boddington (dramaturgy) [installation images: opposite top] Transitional Space (SL)

(mixed-reality) performance iteration #2 - "Meeting Place(s)" with: Prof. Christine Straumer and her students from the Hochschule für Musik Carl Maria von Weber, Dresden, DE [installation images: opposite bottom] The Great Hall, Hellerau, Dresden, DE (RL) and Transitional Space (SL)









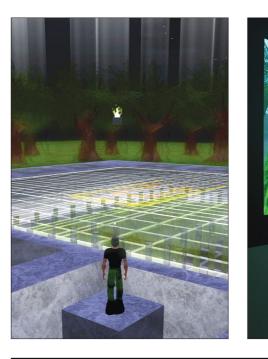
The Vitruvian World, 2008, virtual/physical/network installation (Second Life), dimensions variable

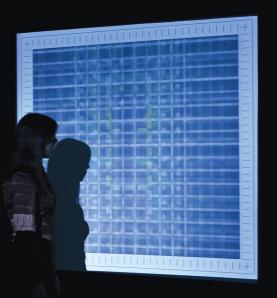
with: Drew Baker (3D visualisation) and David Steele (backend programming) commissioned by: Turbulence.org with funds from the Andy Warhol Foundation for the Visual Arts online documentation: www.takeo.org/nspace/sl002

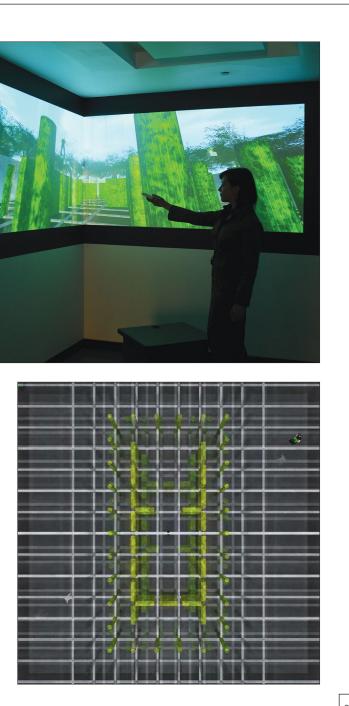
[installation images] Mixed Realities, Ars Virtua Gallery (SL), Huret & Spector Gallery, Boston, US (RL) and Turbulence.org (web)

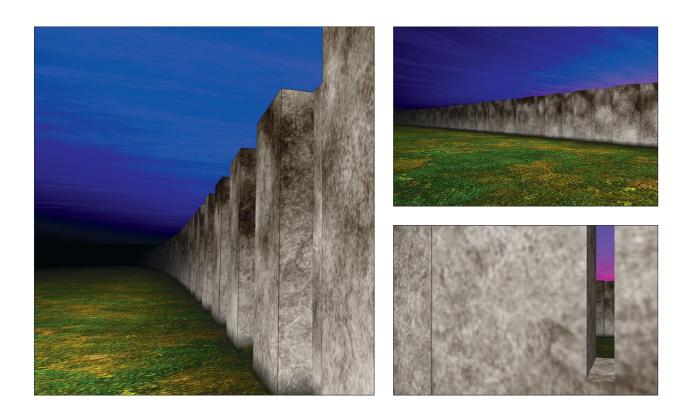
In the 1st century BC, Roman writer, architect and engineer Vitruvius codified specific building formulae based on the guiding principles of *strength*, *utility* and *beauty*. He believed that architecture was intrinsically linked to nature and was a human imitation of cosmic order. The most well-known interpretation of this postulate is the *Vitruvian Man* by Leonardo da Vinci in which the male form is depicted in unity with the square and circle - representing material and spiritual existence respectively. This tripartite union of human body, material form and spiritual essence maintains relevance within the current climate of distributed presences, mixed realities and internet cultures. The proliferation of synthetic worlds and virtual constructs engendered by our ubiquitous technology provides new realms for both actual existence and creative exploration.

The Vitruvian World is a multi-nodal and recursive artwork that embodies Vitruvius's principles within this context. Existing in three distinct yet interconnected spaces, the work simultaneously embraces the virtual, the physical, and the network connecting them.







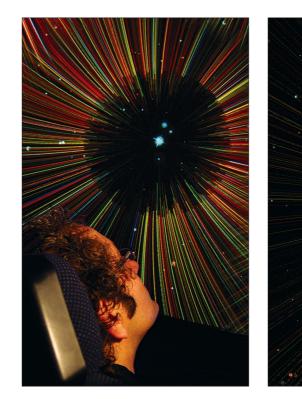


#### (endless) Wall, 2008, virtual environment (VRML), dimensions variable

assisted by: Drew Baker (3D visualisation) online version: www.takeo.org/nspace/ns027

We are a divided society. Throughout history our ancestors have purposefully constructed barriers and divisions to fragment the world's population. From land and wealth to knowledge and freedom, social engineering has created arbitrary imbalances between nations and individuals alike. In this age, new industrial and communication technologies have the potential to extend human creativity and provide numerous benefits within our everyday lives. Although such technologies can engender an open and enabled society, these mechanisms are often implemented in processes of restriction and control. From the Israeli wall in Palestine to DEC's firewall, governments and corporations surround us with impassable barriers under the guise of 'protection' and 'security'.

(endless) Wall is a virtual 3D environment into which a single individual can venture. Upon entrance, the user is confronted by a wall that spans into the distance, whilst behind them a barren ground dissipates into a black void. The wall is impassable. As the individual journeys along its base there is never a break in the structure or a means to transverse the barrier. At regular points, small openings like narrow slits of a prison cell allow the individual to gaze into the space that lies beyond. The view is not of a utopia, but only another wall – imposing and unbroken like the first. In the distance, a beautiful and soft light emanates from the sky and stretches across the horizon. The passage of time is recorded only by the slow but constant progression of the clouds above. We sense the notion of a better place (a better life), but we cannot reach it.

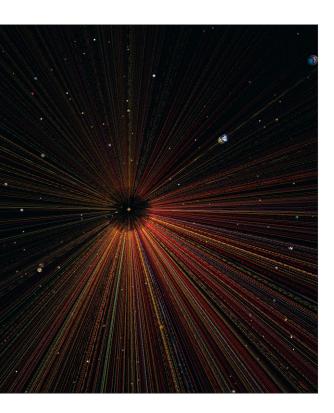


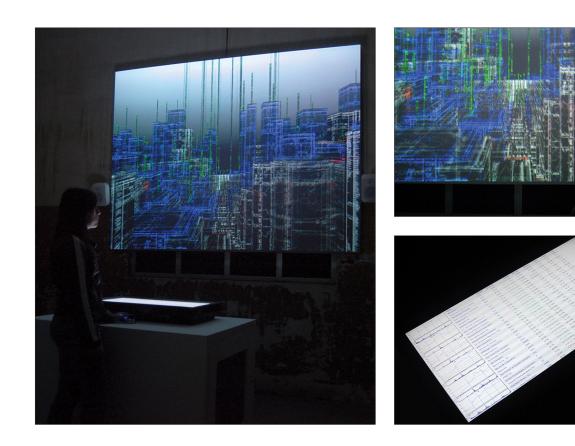
### Data\_Sea, 2009, virtual fulldome (360-degree) environment (VRML, Java), dimensions variable

assisted by: Drew Baker (3D visualisation), Dr. Johanna Jarvis (scientific research) and David Steele (backend programming) commissioned by: Thinktank Planetarium for the International Year of Astronomy 2009 with funds from Arts Council England online version: www.takeo.org/nspace/ns030

The televised broadcast of the Berlin Olympics in 1936 was humanity's first media transmission powerful enough to pass through Earth's ionosphere and travel into deep space. From that point in time our signals have radiated into the universe, creating an ever-expanding globe referred to as Earth's Radiosphere. In the 76 years since that defining moment, our communications have reached nearly two thousand other known star systems.

Data\_Sea is a real-time virtual environment based upon this relationship between broadcast media and astronomy. The core geometry of the artwork is derived from the actual positions of all catalogued star systems residing within the Radiosphere. Obtained from current astronomical databases, these scientific measurements have been translated into a 3D VRML structure. Each star system's basic properties affect its aesthetic manifestation within the virtual realm. Star type is represented by shape, while each stellar node is connected to a central spherical body (representing our solar system) by line structures that are coloured according to its spectral class. Systems that are known to contain exoplanets are surrounded by concentric ring structures. Live media from the BBC world news service is streamed into the environment. The virtual elements are textured with images from today's events, while layers of live audiocasts are blended into a persistent soundscape. These mediated reflections of the present are in constant flux, forever shifting as they drift into an endless sea of virtual space.



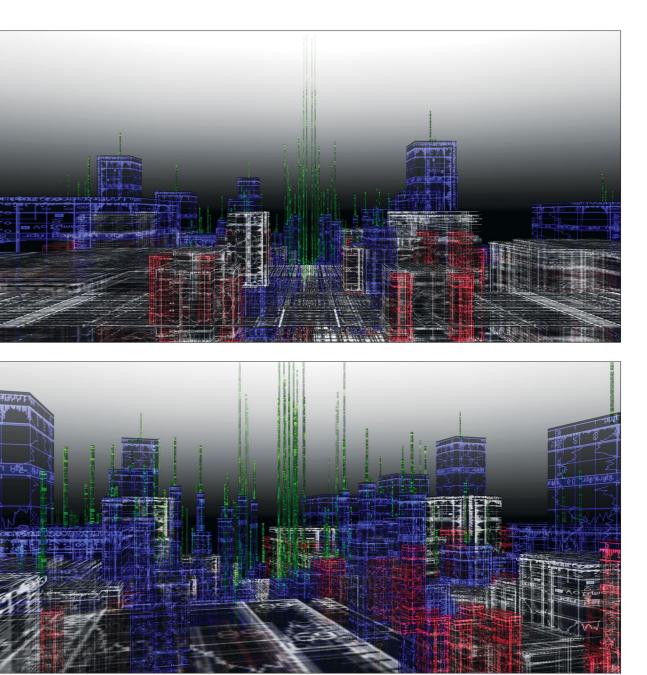


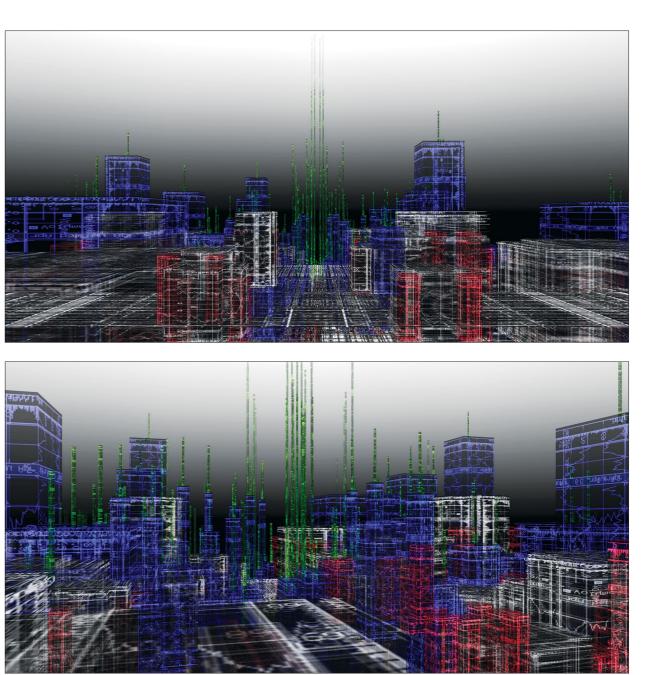
Data\_Plex (economy), 2009, virtual environment (VRML, Java), dimensions variable

assisted by: Drew Baker (3D visualisation) and David Steele (backend programming) online version: www.takeo.org/nspace/ns031 [installation images] After the end/False records, 18th Rencontres Internationales, Tabacalera, Madrid, ES, 2009

Data\_plex (economy) reflects upon the unpredictability of the global market and the capitalist institutions of which it is comprised. The artwork is created from a single live market feed of the most cited international stock market index, the Dow Jones Industrial Average (DJI), compiled from the share prices of thirty of the largest and most widely owned public companies in the US.

A Java and VRML framework translates this stream of fluctuating information into a metaphorical cityscape based on modernist aesthetics of skyscrapers and urban grids. Each company is represented in the virtual environment by a series of cubic greyscale forms that are proportioned according to factors such as its stock price, market capitalisation and percentage of the DJI index. Current positions shift alongside ghosted structures of the recent past - dissolving traces from the previous four days of trading. Manifestations of historical highs (blue), lows (red) and volumes (green) express the fortunes of the market in colour, while each corporation's representation is textured by a unique image that has been generated by its stock data. The virtual world ebbs and flows with erratic pace as vast volumes of capital are shifted during the trading day, while after hours, the realm sleeps in anticipation of the opening bell.







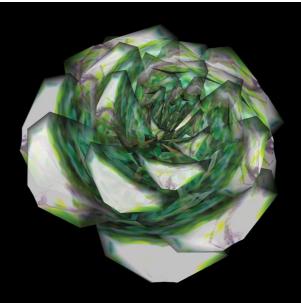
### Data Flower (Prototype I), 2010, virtual data-sculptures (VRML, Java), dimensions variable

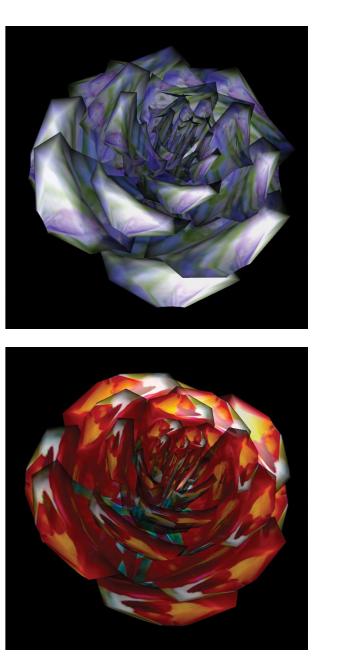
assisted by: Drew Baker (3D visualisation) and Erik Fleming (backend programming) online version: www.takeo.org/nspace/ns034

Data Flower (Prototype I) explores the possibility of creating unpredictable and ephemeral synthetic flora within the deterministic constraints of the digital realm. The 3D structure of the artwork is produced by a set of VRML files that define the core geometry of the artificial flowers. A series of algorithms instigates and directs an endless cycle of emergence, growth and decay of the virtual blossoms. Randomisation of certain parameters at the onset of every new cycle causes subtle mutations within the petal formations and ensures that each flower develops in a different manner.

Unlike conventional artificial life systems which are solely based upon unchanging internal factors, the artwork integrates an external, non-deterministic element directly into its creation process. The surface textures of the synthetic blossoms are programmatically constructed each day by an online Java application that parses the image repository Flickr and selects one hundred of the most recent photographs which have been uploaded with the tag 'flower'. The sampled pictures are then algorithmically prepared and stored as a temporary database that is linked to the artwork's VRML component. On each loop of the flowering cycle, a randomly selected image from the database is applied across the growing virtual geometry, thus completing that flower's ephemeral form. As in real life, every virtual blossom the artwork generates is unique since its internal 'genetic' code exists in a perpetual state of flux and its external 'developmental' influence is derived from an ever-changing pool of user-generated media.









Data Double (El Lissitzky iteration), 2009, virtual/physical installation (Second Life)

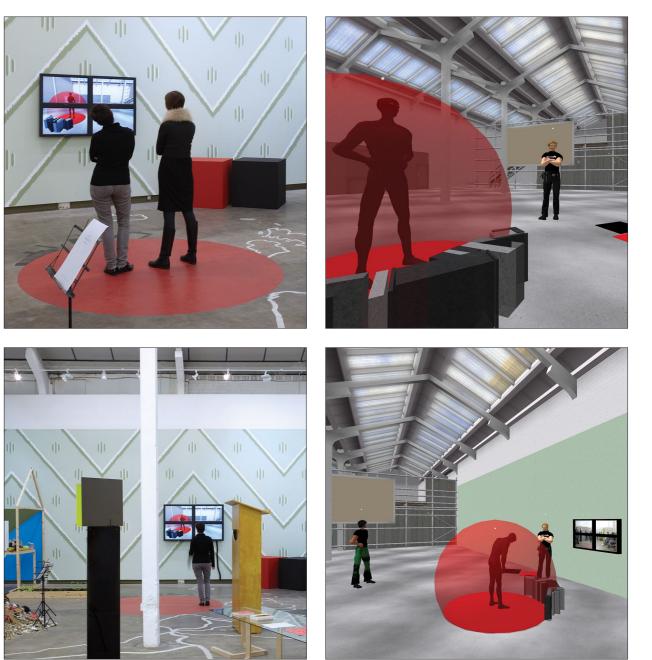
assisted by: Drew Baker (3D visualisation)

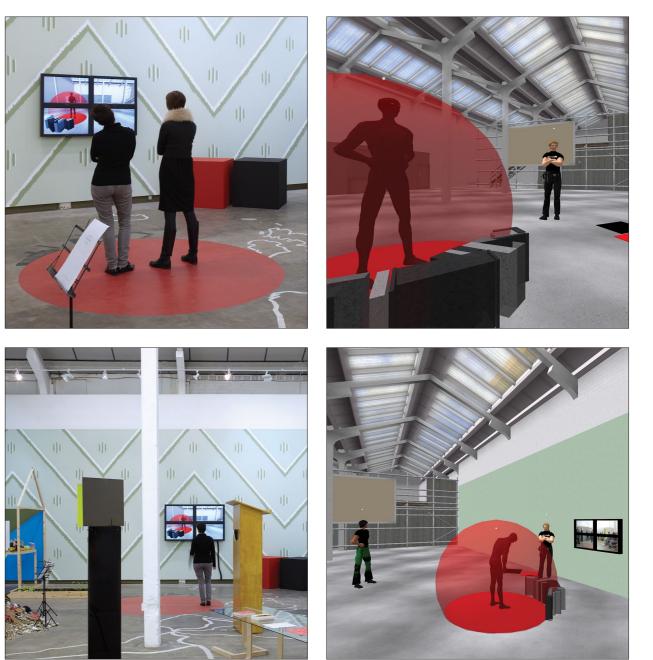
commissioned by: Eastside Projects with funds from Arts Council England's Digital Content Development Programme online documentation: www.takeo.org/nspace/sl003

[installation images] Abstract Cabinet Show, Eastside Projects, Birmingham, UK (RL) and virtual Eastside Projects (SL), 2009

Data Double is a mixed-reality installation that acts as a two-way, digital mirror between reality and virtuality, enabling viewers in each 'world' to gaze upon remediations of themselves and their surrounding space. Reflecting back to us our spatial environments, while simultaneously disrupting and distorting our perceptions of them, the artwork seeks to facilitate new creative and curatorial possibilities between the paralleled worlds, exploring relationships and opening dialogical spaces between the real and the virtual, the actual and the imagined. The installation is conceptually based upon the work of Russian artist and theorist El Lissitzky and his notion of architectural space as artwork, which he demonstrated through his Abstract Cabinet rooms of 1926-28. The installation is derived from Lissitzky's page design From far away, flying towards the Earth taken from his seminal publication About 2 Squares (Sycthian Press, Berlin, 1922) in which he proposes the translation of constructed forms across realities in a manner that expands their spatial and temporal qualities as they shift between worlds.

Simultaneously located within the physical environment of Eastside Projects and its shared virtual counterpart in Second Life, the artwork extends Lissitzky's illustration across the real and virtual spaces as balancing opposites. Within the physical gallery, Lissitzky's two squares expand into perfect cubes, while the earth and cityscape (red circle and surrounding black forms) remain 'flat' as floor-painted elements. In the virtual realm, by contrast, the squares revert to planes and the planet-city complex acquires a third dimension. The 'mirror' interface between the worlds is realised through a pair of live, bi-directional, audiovisual transmissions that allow both virtual and physical spectators to be aware of one another and their surroundings. The reflection of the virtual environment displayed on the video wall within the physical gallery is generated through the space's black Doll (a virtual body devoid of human agency that is used to 'sense' and transmit aspects of a virtual world). Within Second Life, the opposing view of the physical environment is provided by an IP camera that streams live video of the actual location across the Internet to its virtual counterpart. In addition, a motion sensor tracks visitor movement within the real space, and transmits its live data to the virtual realm. When an individual enters the red circular area of the installation, the Doll comes to life and shifts its gaze back towards the onlooking spectator.







Changing Room v1.0, 2009, collaborative virtual/physical installation (Second Life)

assisted by: Drew Baker (3D visualisation) commissioned by: Eastside Projects with funds from Arts Council England's Digital Content Development Programme online documentation: www.takeo.org/nspace/sl004 [installation images] Eastside Projects, Birmingham, UK (RL) and virtual Eastside Projects (SL)

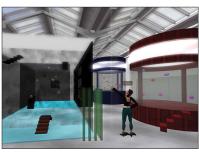
*Changing Room* is a mixed-reality installation exploring the mutability and reusability of artefacts, concepts and contexts in the Digital Age. The work considers the transitory nature of shared virtual and physical spaces and the creative potential of working within these liminal terrains.

Changing Room v1.0 blended the shared virtual environment of Second Life with the shared physical environment of Eastside Projects, facilitating the realisation, curation and documentation of six distinct – yet interrelated – art projects arising from a common pool of resources. The artwork's initial configuration was exhibited without alteration for a period of one week, after which its materials were relinquished to a collaborating artist who was given exclusive access to remix and modify the spaces according to their own designs. At the start of each following week, control was ceded to another resident artist, thus continuing the process. 3D, video, photographic and textual documentation was collected at the end of each artist's session in order to preserve the project's main transitions.

v1.0 guest artists: Antonio Roberts (as Overload Afterthought), Selma Wong (as Selma Zeplin), Wei Zhao (as Jovi Kenin), Ana Benlloch (as Ana Vemo), Iona Makiola (as Giggle Wurgle) and Lee Scott (as lee85 Unplugged)



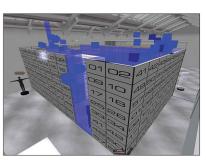














Vanishing Point(s), 2010, virtual/physical installation (Second Life)

with: Dr. Hugh Denard (humanities research) assisted by: Drew Baker (3D visualisation) and Martin Blazeby (2D visualisation) commissioned by: Digital Humanities 2010, King's College London, UK online documentation: www.takeo.org/nspace/sl005 [installation images] The Great Hall, King's Building, London, UK (RL) and Transitional Space (SL)

Vanishing Point(s) is a site-specific art installation that explores creative collisions and collaborative possibilities between contemporary art discourse and humanities research. Commissioned for the Great Hall of the Grade I listed King's Building created in 1831 by English architect Sir Robert Smirke (1781-1867), the project conjoins Takeo's long-standing use of computational processes and virtual environments as frameworks for artistic expression and Denard's studies of the playfully illusionistic and fantastical worlds of Roman fresco art.

Vanishing Point(s) takes as its inspiration the astonishingly complex and beautiful ways in which Roman architecture and painting often converged, immersing the viewer in imagined spaces – idealised cities and gardens, palaces and shrines, theatres and basilicas – and beguilingly interweaving physical architecture with painted views so that it is not always easy to discern fact from fantasy; these were indeed 'virtual' worlds that can speak to the digitally-generated virtual worlds of the Avatar Age. The creators have drawn deeply upon the conceptual and compositional principles of theatrically-inspired Roman frescoes to form new, classically-influenced vistas in the online synthetic realm of Second Life as the visual source material for a new work that that also draws on spatial-pictorial traditions of stained glass. *Vanishing Point(s)* interpolates an elegant, uncanny virtual garden into the enclosed urban space between the King's Building and East Range, calling upon the daily rhythms of natural light to animate, through semi-translucent film, a magically poised moment that is at once dawn, noon, dusk and night, while subtle framing elements tease the viewer with playful elisions of physical and virtual space.







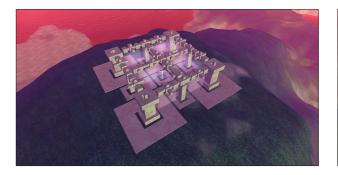
(all)Time, 2010, virtual/physical installation (Second Life)

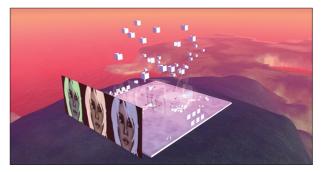
assisted by: Drew Baker (3D visualisation) online documentation: www.takeo.org/nspace/sl006

(all)Time consists of a scenic view of a virtual landscape rendered into a physical gallery environment as a painterly expanse; in the distance, a shifting sky adjoins a glistening ocean across an unending horizon, whilst in the foreground, a pair of bodies – two *Dolls*, identical and statuesque – stand upon a virtual shore. This is a living space open to the avatar residents of Second Life.

Although the possibility of human presence exists, the realm is calm and empty, untarnished by the often persistent clutter of the metaverse. Time flows within this land and is measured by subtle modulations of the environment itself, such as clouds drifting by and waves shimmering at the water's surface. A synthetic breeze causes a few small blades of grass to sway upon the beach, and as visitors enter the physical proximity of the installation, the vegetation appears to slowly expand as if the process of observation engenders growth from beneath the lifeless sand.

There is, however, an unreal quality to the presented vista. A vibrant sun shares the heavens with a full moon, and rays of sunlight are interwoven with stars from a night time sky. This seemingly paradoxical blend of opposing times is not a fictitious state. The view is generated from the pair of *Dolls*, simultaneous visions of the same space, at the same moment, but in different 'times', composited into a single reality. Through their eyes we are able to witness the temporal mix of day and night firsthand, and consider that within the metaverse, perhaps all 'times' exist as one.







Changing Room v2.0, 2010, collaborative virtual/physical installation (Second Life)

A series of collaborative, 24-hour remix sessions for the *Sonorities Festival of Contemporary Music*, Queen's University Belfast, UK assisted by: Drew Baker (3D visualisation) online documentation: www.takeo.org/nspace/sl007

v2.0 teams: Drew Baker (as Melancholy Graves)/M. Takeo Magruder (as Takeo Takacs); Steve Millar (as Arahan Claveau)/Selavy Oh (as Selavy Oh); and Ana Benlloch (as Ana Vemo)/Rachel Darke (as Lledrith Darracq)/Antonio Roberts (as Overload Afterthought)







by Dr. Hugh Denard

Takeo's recent creative output includes several works that establish a fascinating, triangular relationship between contemporary arts practice, emerging visualisation technologies and historical materials. *Monolith[s]* (2006), *Rhythmic Space(s)* (2007), *The Vitruvian World* (Takeo/Baker/Steele, 2008), *Data Double* (2009) and *Vanishing Point(s)* (Takeo/Denard, 2010) re-imagine and transform overtly 'historical' or 'pre-historical' artefacts; materials from past eras are deformed, juxtaposed and blended in unexpected ways, providing experiences in time and space in which past and present collide in images, sounds and interactions rooted equally in the real and the simulated; they meditate on the future of the past in the memory cultures of cyberspace-era societies, where physical and virtual lives are ineluctably conjoined by operating systems, augmented reality devices and virtual worlds. Multi-layered artefacts from the distant past jostle against and merge with those of the digital present revealing suggestive connections and uncanny disconnections and rendering past and present simultaneously familiar and strange to us and to each other.

Two examples – *Rhythmic Space(s)* and *Data Double* – will serve to introduce some of the most important characteristics of Takeo's 'rememberings'.

At the centre of the 1911 Festspielhaus in the Garden City of Hellerau, near Dresden, lay a Great Hall designed to the specification of theatre visionary, Adolphe Appia. It afforded a single shared space for actors and spectators, enfolded by diffuse lighting, with directed lights additionally sculpting the performance area. Appia's solid scenic modules could be combined into almost limitless arrangements, their static, geometrical sharpness and rigidity contrasting with the plasticity and mobility of living human bodies. His 1913 production, with Émile Jaques-Dalcroze, of Gluck's *Opheus and Eurydice* became a landmark of modern theatre.

In 2007, researcher Drew Baker translated his three-dimensional models of Appia's designs – *The Descent* of Orpheus into the Underworld and an unrealised 'rhythmic space', *The Staircase* (1909) – into Second Life: a persistent virtual world, in which users can enter and socialise as avatars, create interactive objects, construct buildings and shape terrain. In *Rhythmic Space(s)*, Takeo, with Baker, explored the expressive capacity of Second Life to evoke and adapt these designs, as well as Appia's theoretical writings on space, architecture and lighting. Preserving the geometrical integrity of Appia's scenic modules, Takeo rendered them translucent, mutated their colours to a range of hyper-real browns, and placed them on a high, vivid green plateau, where virtual clouds drifted by to the sound of a cyber-wind under a glowing synthetic sun. Avatars could congregate on a nearby platform, watching as the modular components slowly rearranged themselves from one scenic design to another in an ouroboros-like cycle of reciprocal deconstruction and reconstruction.

The following November, Takeo created two new iterations at Hellerau itself. In one, performer Yukito Obara logged in from Tokyo as Gekitora Gackt to perform a "wind dance solo", both for avatars in Second Life and a live audience at Hellerau. *Wind Dance* realised (virtually) a perfectly Appian, harmonious coordination of space, architecture, lighting and performance. Its combination of avatars and scenic modules also avoided the incongruity, identified by Appia, of combining three-dimensional human bodies with two-dimensionally depicted space.

Appia had asserted that spectators and performers should share the same physical space, encouraging those attending to experience and express themselves as living works of art within a single, shared community. While the audience of avatars, enjoying spatial and dimensional parity with Yukito's avatar, reflected this ideal Appian relationship, the live audience, by contrast, could scarcely have been more divorced from the virtual performance space or the possibility of participation; the impenetrable, flat projection screen presented a more absolute barrier than even the proscenium arch, which Appia had destroyed.

Appia might have viewed *Wind Dance* as a mobile maquette suggestive of how the advanced materials and technologies of the electronic age could, if implemented in physical space and performance, more fully realise his theories. Crucially, however, *Wind Dance* omitted the essential physical presence and experience of the living human body, and Appia's writings suggest he would have regarded as morally degenerate any attempt to view it as a performance in its own right. Indeed, from a purely Appian stance, there is something almost monstrous about the virtual world avatar: synthetic, toy-like, disposable and reproducible, as are its movements, the avatar lacks the dignity of human fragility and mortality, and disregards the laws of both morality and physics. Such avatars would surely have represented, for Appia, the obscene nadir and nemesis of the human body as the trans-historical touchstone of living art. *Wind Dance* prompts us not simply to affirm, but also to question the validity of Appia's thought for the brave new world of contemporary digital and virtual performance.

The following evening, the Great Hall hosted a collaborative event comprising a second iteration of *Rhythmic Space(s)*, called *Meeting Place(s)*, together with music and Eurhythmic performance coordinated by Prof. Christine Straumer and a closing lecture by Prof. Richard Beacham. In 1912 and 1913, Appia had turned the entire Great Hall into a glowing light box, highlighting the solidity of his scenic modules. In *Meeting Place(s)*, by contrast, the virtual Appian modules, now digitally projected onto three tiers of white physical rostra, became luminescent, glowing in electric reds, greens and blues under a backdrop-projected virtual sun. Straumer's students, dressed in dark, loose-fitting clothes, forearms and shins bared, performed an elegant, three-part *plastique animé*, devised in response to both Dalcroze's work and a live piano score by Straumer.

The virtual scenic modules, however, contradicted the geometry of the physical modules onto which they were projected, most visibly when quietly juddering from one scenic configuration to another. Although the result was strikingly beautiful, a strictly Appian analysis would observe that *Meeting Place(s)* in fact

exacerbated dimensional discontinuities, which Appia had aimed to eradicate, creating visual-spatial disjunctions between actor and painted space, and between projected space and performer-plus-physical space. Each layer competed both with the ones preceding it, and with the aesthetic harmony embodied by Appia's scenography and Dalcrozian musical and choreographic improvisations.

The digital humanoids and blended realities of *Wind Dance* and *Meeting Place(s)* represented both fulfilment and frustration of Appia's thought and practice. Do their trespasses only exhibit the inability of digital technologies to realise Appian dreams, providing, indeed, an object lesson in what Appia would have considered the moral turpitude of indulging in technological automation at the expense of the irreducible experience and presence of the real human body? Or do these digital works suggest a rival hypothesis that challenges the authority of Appia's thought in the Age of the Avatar?

For Takeo, the capabilities of virtual worlds such as Second Life fundamentally change the rules of the game: we can achieve things in the metaverse that are impossible in real life. Takeo's digitally-constructed spaces are not, in that sense merely 'virtually real'; they constitute the full realisation of visions that only a metaverse can effect. *Wind Dance* and *Meeting Place(s)* constitute disruptive interventions into, rather than evolutions of Appia's thought; precisely by cleaving to the contour of Appia's questions, they imply where the limits of his work lie as a paradigm for contemporary digital practice, while leaving ample space for further explorations within, and beyond, the framework of an Appian critique.

Takeo's **Data Double (El Lissitzky iteration**), part of Gave Wade's 2009 Abstract Cabinet Show in Birmingham's Eastside Projects, engaged with the work of a second, early twentieth-century visionary: Russian artist, designer and architect, El Lissitzky. Lissitzky's exhibition rooms for modern art of 1926-8 were radical innovations not only for their Constructivist aesthetic and foregrounding of modern technologies but, above all, for their prioritisation of active participation by visitors moving through, and interacting with, the space. Lissitzky's exhibition designs were the expression, in architecture, of his Constructivist designs for two-dimensional media. His children's book, *About 2 Squares*, is a sequence of designs comprising expressive typography and geometrical shapes in red, black, white and grey, which, through its instructions to the reader and its irregular sizing and distributing of words and shapes in space, requires physical interaction.

About 2 Squares unfolds a narrative in which a flying black square and (revolutionary) red square crash into a large red circle ("the Earth"), scattering its accreted mess of architectural, black and white forms, only to establish a new "settlement" in its place. The sequence ends with a new black square flying towards the new Earth-architecture composite; the title of the page in question – *Here it ends. . .and keeps going* – elegantly compresses Leninist dialectics of development by revolution.

Takeo's *Data Double* pursued the logic of Lissitzky's assertion that such designs represent "the transfer points from painting to architecture" by physically realising the page, *From far away, flying towards the* 

*Earth*, in which the red and black squares rush headlong towards the existing world-order. Takeo painted onto the gallery floor the large, red, flat "Earth" and its encrusted architectural forms, but extruded Lissitzky's squares into three-dimensional cubes. Seeing *About 2 Squares* as proposing "the translation of constructed forms across realities in a manner that expands their spatial and temporal qualities", Takeo also created an inverse 'double' of the physical installation within Second Life in which Lissitzky's flying squares lay flat upon the (virtual) floor, while the "Earth" became a red, translucent, three-dimensional sphere, with abutting architectures. Adding a quasi-da Vincian touch, Takeo inserted into the sphere a nude, masculine Second Life avatar, suggesting a dual mapping of Lissitzky's revolutionary gesture onto the epochal shifts of both the Renaissance and the digital age. Finally, Takeo set the entire virtual installation into Drew Baker's mirrored, virtual simulacrum of the Eastside Projects building: visitors to *Data Double* could now be either physical or, by logging on in Second Life, virtual.

Like Lissitzky, Takeo insisted on active spectatorship, making the movements and interactions of both physical and virtual visitors part of the installation. A four-monitor video wall in the physical gallery relayed what was happening in the virtual world, while virtual visitors entering the Second Life space as avatars were confronted with a matching, virtual video wall displaying a live video feed from a camera in the physical gallery. In the physical space, a motion-sensing system tracked the movement of visitors so that when one stepped onto the flat, red "Earth" on the floor, in Second Life, the avatar would jolt awake and stare through the "window" at the visitor. If Lissitzky considered that a Constructivist design "begins as a level surface, turns into a model of three-dimensional space, and goes on to construct all the objects of everyday life", then Takeo's "shared portal between reality and virtuality" presented two, co-valid dimensional planes, each with agents observing and interacting with their mirrored doubles in real-time. These altered reflections of actual and virtual, and of interacting visitor and acted-upon avatar, hinted at the implications of Lissitzky's preoccupation with flows between two- and three- and four-dimensionality for questions of form and agency in contemporary virtual worlds.

Data Double's engagement with these unapologetically propagandistic designs suggests a sympathy with Lissitzky's socially-transformative objective in creating "active" viewers. Ironically, while Lissitzky's presentation of revolutionary dialectics suggests how new structures can emerge out of the raw materials of the past when violently impacted by forces of change, Takeo's installation, by asserting the value of Lissitzky's work as a possible route-map for trans-dimensional modes of artistic expression and spectatorship in an era of dramatic digital transformation, implies a more gradualist vision.

Each of Takeo's 'rememberings' exemplifies the value of mining historical materials to nourish contemporary creative practice. Takeo's strategy of quotation casts him almost like a historian laying the research processes out before the reader, and offers a model of art as historical explication and amplification. The nomenclature that defines Takeo as an 'artist' and his outputs as 'artworks', as well as their spatial-temporal, rather than verbal, forms of expression, tend to deflect the glance of historians. Whether the considerable potential of these works to unlock new historical understandings and interpretations will be realised, only time will tell.

# INFORMATION AND ACKNOWLEDGEMENTS

## Michael Takeo Magruder : (re)mediation\_s 2000-2010

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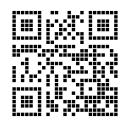
body>data>space, UK Chamber of Public Secrets, UK/IT & DK/LB Q Arts (now QUAD), Derby, UK Centre des Arts, Enghien-les-Bains, FR Thinktank Birmingham Science Museum, UK Courtauld Institute of Art, London, UK Trans-Media-Akademie Hellerau, DE Peterborough Museum & Art Gallery, UK Rencontres Internationales (roARaTorio), FR The Brindley Arts Centre, UK 20-21 Visual Arts Centre, UK East International 2005, Norwich Gallery, UK Shrewsbury Museum & Art Gallery, UK Department of Digital Humanities, King's College London, UK Digital Humanities 2010, London, UK Visualisation Research Unit, Birmingham Institute of Art & Design, UK Norden Farm Centre for the Arts. UK Eastside Projects, Birmingham, UK

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Michael Takeo Magruder (b.1974, US/UK) is an internationally recognised visual artist and researcher based in the Department of Digital Humanities, King's College London who works with digital and new media including real-time data, immersive environments, mobile devices and virtual worlds. His practice explores concepts ranging from media criticism and aesthetic journalism to digital formalism and computational aesthetics, deploying Information Age technologies and systems to examine our networked, media-rich world. In the last 15 years, Takeo's projects have been showcased in over 250 exhibitions in 30 countries, including Circulo de Bellas Artes, Madrid; the Courtauld Institute of Art, London; *EAST International*, Norwich; Eastside Projects, Birmingham; FACT, Liverpool; Georges Pompidou Center, Paris; KIBLA Multimedijski Center, Maribor; QUAD, Derby; SESI' Cultural Centre, São Paulo; Tokyo Metropolitan Museum of Photography; and Trans-Media-Akademie, Hellerau. His art has been funded by the Andy Warhol Foundation for the Visual Arts; Arts Council England; the Esmée Fairbairn Foundation; the EU Culture Programme; the Leverhulme Trust; the National Endowment for the Arts, US; and the National Lottery, UK. He has been commissioned by numerous public galleries in the UK and abroad and by the leading Internet Art portal Turbulence.org. In 2010, Takeo was selected to represent the UK at *Manifesta 8: the European Biennial of Contemporary Art* and several of his most well-known digital artworks were added to the Rose Goldsen Archive of New Media Art at Cornell University.

Takeo received his formal education at the University of Virginia, US and graduated in 1996 with a BSc (Hons) in molecular biology. He is a long-standing associate artist of the East London interdisciplinary design collective body>data>space, with whom he regularly collaborates on media arts and education projects. Takeo's research focuses on the intersections between contemporary art, emerging technology and interdisciplinary practice. His writings have been widely published, with recent contributions appearing in books and journals such as *The Preservation of Complex Objects: Software Art* (2012, University of Portsmouth, UK), the *International Journal of Performance Arts and Digital Media* (2011, Intellect, UK), *Theatre without Vanishing Points* (2010, Alexander Verlag, DE), *Performing Technology: User Content and the New Digital Media* (2009, Cambridge Scholars Publishing, UK), *Virtual/Physical Bodies* (2008, Centre des Arts, FR) and *Die Welt als virtuelles Environment* (2007, TMA Hellerau, DE). Takeo is also a STEM (Science, Technology, Engineering and Mathematics) ambassador associated with Thinktank Birmingham Science Museum and regularly lectures about the potentials of creatively blending art and technology.



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