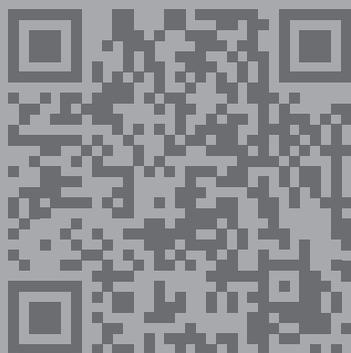
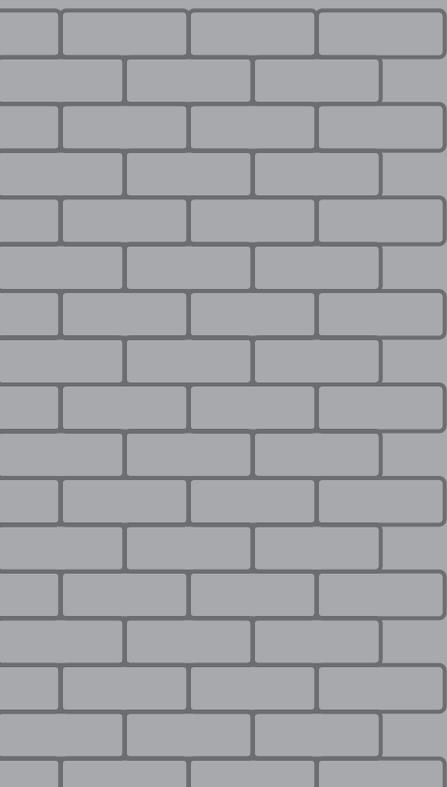


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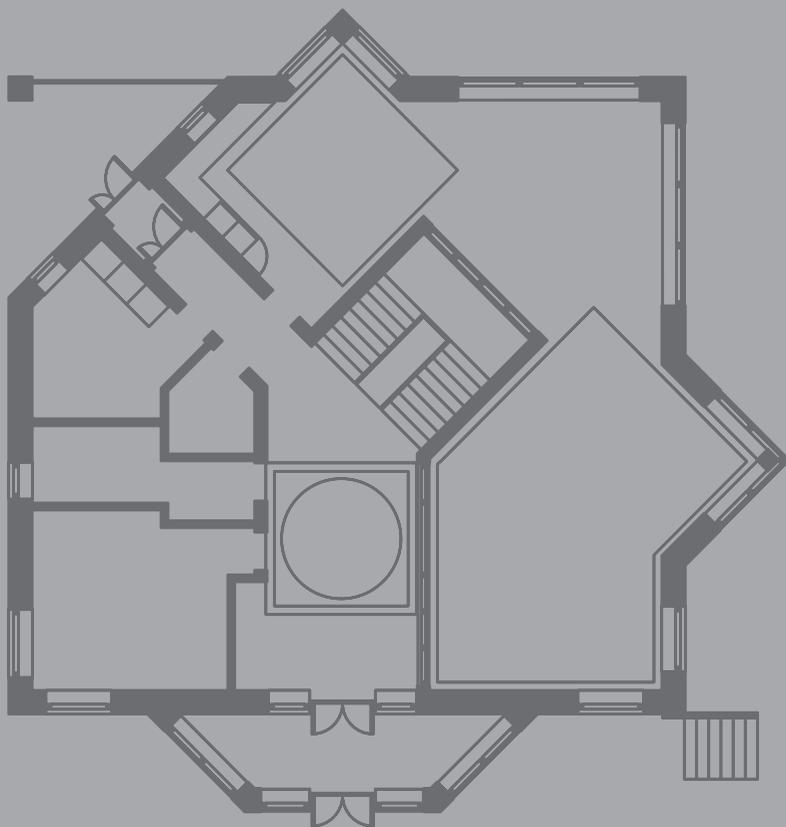
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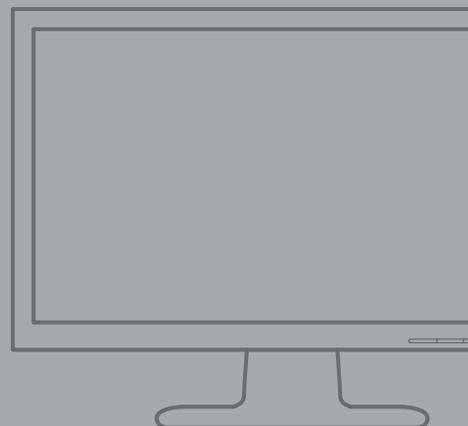
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EDITORS **ÖZDEN ŞAHİN**, **JONATHAN MUNRO** AND **CATHERINE M. WEIR**

This LEA publication has a simple goal: surveying the current trends in augmented reality artistic interventions. There is no other substantive academic collection currently available, and it is with a certain pride that LEA presents this volume which provides a snapshot of current trends as well as a moment of reflection on the future of AR interventions.



NOT THERE



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LEONARDO ELECTRONIC ALMANAC, VOLUME 19 ISSUE 2

Not Here Not There

VOLUME EDITORS

LANFRANCO ACETI AND RICHARD RINEHART

EDITORS

ÖZDEN ŞAHİN, JONATHAN MUNRO AND CATHERINE M. WEIR

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Not Here, Not There: An Analysis Of An International Collaboration To Survey Augmented Reality Art

Every published volume has a reason, a history, a conceptual underpinning as well as an aim that ultimately the editor or editors wish to achieve. There is also something else in the creation of a volume; that is the larger goal shared by the community of authors, artists and critics that take part in it.

This volume of LEA titled *Not Here, Not There* had a simple goal: surveying the current trends in augmented reality artistic interventions. There is no other substantive academic collection currently available, and it is with a certain pride that both, Richard Rinehart and myself, look at this endeavor. Collecting papers and images, answers to interviews as well as images and artists' statements and putting it all together is perhaps a small milestone; nevertheless I believe that this will be a seminal collection which will showcase the trends and dangers that augmented reality as an art form faces in the second decade of the XXIst century.

As editor, I did not want to shy away from more critical essays and opinion pieces, in order to create a documentation that reflects the status of the current thinking. That these different tendencies may or may not be proved right in the future is not the reason for the collection, instead what I believe is important and relevant is to create a historical snapshot by focusing on the artists and authors developing artistic practices and writing on augmented reality. For this reason, Richard and I posed to the contributors a series of questions that in the variegated responses of the artists and authors will evidence and stress similari-

ties and differences, contradictions and behavioral approaches. The interviews add a further layer of documentation which, linked to the artists' statements, provides an overall understanding of the hopes for this new artistic playground or new media extension. What I personally wanted to give relevance to in this volume is the artistic creative process. I also wanted to evidence the challenges faced by the artists in creating artworks and attempting to develop new thinking and innovative aesthetic approaches.

The whole volume started from a conversation that I had with Tamiko Thiel – that was recorded in Istanbul at Kasa Gallery and that led to a curatorial collaboration with Richard. The first exhibition *Not Here* at the Samek Art Gallery, curated by Richard Reinhart, was juxtaposed to a response from Kasa Gallery with the exhibition *Not There*, in Istanbul. The conversations between Richard and myself produced this final volume – *Not Here, Not There* – which we both envisaged as a collection of authored papers, artists' statements, artworks, documentation and answers to some of the questions that we had as curators. This is the reason why we kept the same questions for all of the interviews – in order to create the basis for a comparative analysis of different aesthetics, approaches and processes of the artists that work in augmented reality.

When creating the conceptual structures for this collection my main personal goal was to develop a link – or better to create the basis for a link – between ear-

lier artistic interventions in the 1960s and the current artistic interventions of artists that use augmented reality.

My historical artist of reference was Yayoi Kusama and the piece that she realized for the Venice Biennial in 1966 titled *Narcissus Garden*. The artwork was a happening and intervention at the Venice Biennial; Kusama was obliged to stop selling her work by the biennial's organizers for 'selling art too cheaply.'

"In 1966 [...] she went uninvited to the Venice Biennale. There, dressed in a golden kimono, she filled the lawn outside the Italian pavilion with 1,500 mirrored balls, which she offered for sale for 1,200 lire apiece. The authorities ordered her to stop, deeming it unacceptable to 'sell art like hot dogs or ice cream cones.'"¹

The conceptualization and interpretation of this gesture by critics and art historians is that of a guerrilla action that challenged the commercialization of the art system and that involved the audience in a process that revealed the complicit nature and behaviors of the viewers as well as use controversy and publicity as an integral part of the artistic practice.

Kusama's artistic legacy can perhaps be resumed in these four aspects: a) engagement with audience's behaviors, b) issues of art economy and commercialization, c) rogue interventions in public spaces and d) publicity and notoriety.

These are four elements that characterize the work practices and artistic approaches – in a variety of combinations and levels of importance – of contem-

1. David Pilling, "The World According to Yayoi Kusama," *The Financial Times*, January 20, 2012, <http://www.ft.com/cms/s/2/52ab168a-4188-11e1-8c33-00144feab49a.html#axzz1kDck8Rzm> (accessed March 1, 2013).

porary artists that use augmented reality as a medium. Here, is not perhaps the place to focus on the role of 'publicity' in art history and artistic practices, but a few words have to be spent in order to explain that publicity for AR artworks is not solely a way for the artist to gain notoriety, but an integral part of the artwork, which in order to come into existence and generate interactions and engagements with the public has to be communicated to the largest possible audience.

"By then, Kusama was widely assumed to be a publicity hound, who used performance mainly as a way of gaining media exposure."² The publicity obsession, or the accusation of being a 'publicity hound' could be easily moved to the contemporary group of artists that use augmented reality. Their invasions of spaces, juxtapositions, infringements could be defined as nothing more than publicity stunts that have little to do with art. These accusations would not be just irrelevant but biased – since – as in the case of Sander Veenhof's analysis in this collection – the linkage between the existence of the artwork as an invisible presence and its physical manifestation and engagement with the audience can only happen through knowledge, through the audience's awareness of the existence of the art piece itself that in order to achieve its impact as an artwork necessitates to be publicized.

Even if, I do not necessarily agree with the idea of a 'necessary manifestation' and audience's knowledge of the artwork – I believe that an artistic practice that is unknown is equally valid – I can nevertheless understand the process, function and relations that have to be established in order to develop a form of engagement and interaction between the AR artwork and the audience. To condemn the artists who seek publicity

2. Isabelle Loring Wallace and Jennie Hirsh, *Contemporary Art & Classical Myth* (Farnham; Burlington, VT: Ashgate, 2011), 94.

in order to gather audiences to make the artworks come alive is perhaps a shortsighted approach that does not take into consideration the audience's necessity of knowing that interaction is possible in order for that interaction to take place.

What perhaps should be analyzed in different terms is the evolution of art in the second part of the XXth century, as an activity that is no longer and can no longer be rescinded from publicity, since audience engagement requires audience attendance and attendance can be obtained only through communication / publicity. The existence of the artwork – in particular of the successful AR artwork – is strictly measured in numbers: numbers of visitors, numbers of interviews, numbers of news items, numbers of talks, numbers of interactions, numbers of clicks, and, perhaps in a not too distant future, numbers of coins gained. The issue of being a 'publicity hound' is not a problem that applies to artists alone, from Andy Warhol to Damien Hirst from Banksy to Maurizio Cattelan, it is also a method of evaluation that affects art institutions and museums alike. The accusation moved to AR artists of being media whores – is perhaps contradictory when arriving from institutional art forms, as well as galleries and museums that have celebrated publicity as an element of the performative character of both artists and artworks and an essential element instrumental to the institutions' very survival.

The publicity stunts of the augmented reality interventions today are nothing more than an acquired methodology borrowed from the second part of the XXth century. This is a stable methodology that has already been widely implemented by public and private art institutions in order to promote themselves and their artists.

Publicity and community building have become an artistic methodology that AR artists are playing with by

making use of their better knowledge of the AR media. Nevertheless, this is knowledge born out of necessity and scarcity of means, and at times appears to be more effective than the institutional messages arriving from well-established art organizations. I should also add that publicity is functional in AR interventions to the construction of a community – a community of aficionados, similar to the community of 'nudists' that follows Spencer Tunic for his art events / human installation.

I think what is important to remember in the analysis of the effectiveness both in aesthetic and participatory terms of augmented reality artworks – is not their publicity element, not even their sheer numbers (which, by the way, are what has made these artworks successful) but their quality of disruption.

The ability to use – in Marshall McLuhan's terms – the medium as a message in order to impose content by-passing institutional control is the most exciting element of these artworks. It is certainly a victory that a group of artists – by using alternative methodological approaches to what are the structures of the capitalistic system, is able to enter into that very capitalistic system in order to become institutionalized and perhaps – in the near future – be able to make money in order to make art.

Much could be said about the artist's need of fitting within a capitalist system or the artist's moral obligation to reject the basic necessities to ensure an operational professional existence within contemporary capitalistic structures. This becomes, in my opinion, a question of personal ethics, artistic choices and existential social dramas. Let's not forget that the vast majority of artists – and AR artists in particular – do not have large sums and do not impinge upon national budgets as much as banks, financial institutions, militaries and corrupt politicians. They work for years

with small salaries, holding multiple jobs and making personal sacrifices; and the vast majority of them does not end up with golden parachutes or golden handshakes upon retirement nor causes billions of damage to society.

The current success of augmented reality interventions is due in small part to the nature of the medium. Museums and galleries are always on the lookout for 'cheap' and efficient systems that deliver art engagement, numbers to satisfy the donors and the national institutions that support them, artworks that deliver visibility for the gallery and the museum, all of it without requiring large production budgets. Forgetting that art is also about business, that curating is also about managing money, it means to gloss over an important element – if not the major element – that an artist has to face in order to deliver a vision.

Augmented reality artworks bypass these financial challenges, like daguerreotypes did by delivering a cheaper form of portraiture than oil painting in the first part of the XIXth century, or like video did in the 1970s and like digital screens and projectors have done in the 1990s until now, offering cheaper systems to display moving as well as static images. AR in this sense has a further advantage from the point of view of the gallery – the gallery has no longer a need to purchase hardware because audiences bring their own hardware: their mobile phones.

The materiality of the medium, its technological revolutionary value, in the case of early augmented reality artworks plays a pivotal role in order to understand its success. It is ubiquitous, can be replicated everywhere in the world, can be installed with minimal hassle and can exist, independently from the audience, institutions and governmental permissions. Capital costs for AR installations are minimal, in the order of a few

hundred dollars, and they lend themselves to collaborations based on global networks.

Problems though remain for the continued success of augmented reality interventions. Future challenges are in the materialization of the artworks for sale, to name an important one. Unfortunately, unless the relationship between collectors and the 'object' collected changes in favor of immaterial objects, the problem to overcome for artists that use augmented reality intervention is how and in what modalities to link the AR installations with the process of production of an object to be sold.

Personally I believe that there are enough precedents that AR artists could refer to, from Christo to Marina Abramovich, in order develop methods and frameworks to present AR artworks as collectable and sellable material objects. The artists' ability to do so, to move beyond the fractures and barriers of institutional vs. revolutionary, retaining the edge of their aesthetics and artworks, is what will determine their future success.

These are the reasons why I believe that this collection of essays will prove to be a piece, perhaps a small piece, of future art history, and why in the end it was worth the effort.

Lanfranco Aceti

Editor in Chief, *Leonardo Electronic Almanac*
Director, Kasa Gallery



Site, Non-site, and Website

In the 1960's, artist Robert Smithson articulated the strategy of representation summarized by "site vs. non-site" whereby certain artworks were simultaneously abstract and representational and could be site-specific without being sited. A pile of rocks in a gallery is an "abstract" way to represent their site of origin. In the 1990's net.art re-de-materialized the art object and found new ways to suspend the artwork online between website and non-site. In the 21st century, new technologies suggest a reconsideration of the relationship between the virtual and the real. "Hardlinks" such as QR codes attempt to bind a virtual link to our physical environment.

Throughout the 1970's, institutional critique brought political awareness and social intervention to the site of the museum. In the 1980's and 90's, street artist such as Banksy went in the opposite direction, critiquing the museum by siting their art beyond its walls.

Sited art and intervention art meet in the art of the trespass. What is our current relationship to the sites we live in? What representational strategies are contemporary artists using to engage sites? How are sites politically activated? And how are new media framing our consideration of these questions? The contemporary art collective ManifestAR offers one answer,

"Whereas the public square was once the quintessential place to air grievances, display solidarity, express difference, celebrate similarity, remember, mourn, and reinforce shared values of right and wrong, it is no longer the only anchor for interactions in the public realm. That geography has been relocated to a novel terrain, one that encourages exploration of mobile location based monuments,

and virtual memorials. Moreover, public space is now truly open, as artworks can be placed anywhere in the world, without prior permission from government or private authorities – with profound implications for art in the public sphere and the discourse that surrounds it."

ManifestAR develops projects using Augmented Reality (AR), a new technology that – like photography before it – allows artists to consider questions like those above in new ways. Unlike Virtual Reality, Augmented Reality is the art of overlaying virtual content on top of physical reality. Using AR apps on smart phones, iPads, and other devices, viewers look at the real world around them through their phone's camera lens, while the app inserts additional images or 3D objects into the scene. For instance, in the work *Signs over Semiconductors* by Will Pappenheimer, a blue sky above a Silicon Valley company that is "in reality" empty contains messages from viewers in skywriting smoke when viewed through an AR-enabled Smartphone.

AR is being used to activate sites ranging from Occupy Wall Street to the art exhibition ManifestAR @ ZERO1 Biennial 2012 – presented by the Samek Art Gallery simultaneously at Bucknell University in Lewisburg, PA and at Silicon Valley in San Jose, CA. From these contemporary non-sites, and through the papers included in this special issue of LEA, artists ask you to reconsider the implications of the simple question *wayn* (where are you now?)

Richard Rinehart

Director, Samek Art Gallery, Bucknell University

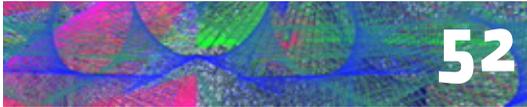
Leonardo Electronic Almanac
Volume 19 Issue 2

5 EDITORIAL Lanfranco Aceti

9 INTRODUCTION Richard Rinehart

 **12** SPATIAL ART: AN ERUPTION OF THE DIGITAL INTO THE PHYSICAL
+ Interview
Simona Lodi

 **36** LEAF++: TRANSFORMATIVE LANDSCAPES
+ Interview, Statement, Artwork
Salvatore Iaconesi, Luca Simeone, Oriana Persico, Cary Hendrickson

 **52** AUGMENTED IRREALITY
+ Interview, Statement, Artwork
Chiara Passa

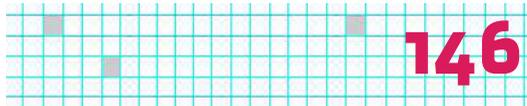
72 NOT NOW, PERHAPS LATER: TIME CAPSULES AS COMMUNICATIONS WITH THE FUTURE
+ Statement
Jo Ann Oravec

84 MECHANICS OF PLACE: TEXTURES OF TOPHANE
+ Interview, Statement, Artwork
Hana Iverson & Sarah Drury

 **98** "IMAGE AS PLACE": THE PHENOMENAL SCREEN IN KIT GALLOWAY & SHERRIE RABINOWITZ'S SATELLITE ARTS 1977
Kris Paulsen

 **112** LOCATION-BASED VIRTUAL INTERVENTIONS: TRANSCENDING SPACE THROUGH MOBILE AUGMENTED REALITY AS A FIELD FOR ARTISTIC CREATION
+ Interview, Statement, Artwork
Alejandro Schianchi

136 INVISIBLE - IN YOUR FACE
+ Interview, Statement, Artwork
Sander Veenhof

 **146** DISCOVERING THE NON-SELF: THE CONSTRUCTION OF LANGUAGE, TRANCE, AND SPACE
+ Interview, Statement, Artwork
Judson Wright

 **168** Interview, Statement, Artwork
Maria Anwander

180 Interview, Statement, Artwork
Ruben Aubrecht

 **190** Interview, Statement, Artwork
A. J. Patrick Liszkiewicz

198 Interview, Statement, Artwork
Mark Skwarek

 **210** Interview, Statement, Artwork
Tamiko Thiel

220 Interview
Patrick Lichty

Not Now, Perhaps Later

Time Capsules as Communications with the Future

by

JO ANN ORAVEC

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INTRODUCTION

The traces of our lives, whether physical artifacts or information, are both ephemeral and eternal. Such items as receipts and newspaper clippings, children's toys and fad holiday gifts materialize and play a role in our everyday existence. Some will effectively vanish. Others will live onward for many millennia, sometimes despite our best efforts to shred, burn, or otherwise eradicate them. Unfortunately, we do not know which objects will indeed provide individuals in the future with some form of legacy, assistance, or enlightenment. Will a cookie recipe, song lyric, or political handbill hold clues as to how we lived our lives? What specific items or information about today's society would provide insights to personal or societal survival strategies decades or even centuries from now?

Time capsule development is an effort to play a role in determining which objects will be preserved for posterity, and possibly for future analysis as well. Time capsule developers collaborate with their often-unknown descendants to produce a form of legacy. Time capsules are entities that exist not in the present but in passing; in many ways, they belong to the future (but only in a tentative manner). Capsule construction provides explicit modes for communicating with the individuals of subsequent eras, but also affords a way for constructors to exchange information with each other about their views and images of the future. This

ABSTRACT

Time capsules are designed to remove selected objects (both physical and virtual) from the streams of everyday use and destruction, toward the goal of placing them in the reach of individuals in the future. This article describes how items are sequestered from present applications and transported to a physical and conceptual space in which they will be received at a particular time in the future with minimal alteration and modification. It analyzes inadvertent time capsule construction (tar pits and tunnels) as well as more deliberate familial, community, didactic, and survivalist varieties. Future archivists or historians are often optimistically posited in time capsule construction who are supposedly prepared to place the items in appropriate context once the capsule is opened. The article also explores the future of time capsule development with projections as to how the character of these efforts may change as the number of online capsules (and amount of digital material stored) increases.

article examines several aspects of the items, events, and processes involved with time capsule development. It emphasizes how the capsules move particular objects out of the normal course of use, modification, and ultimate disposition (or destruction). The capsule contents are indeed “not here, not there” in terms of some time frame constructions.

“TIME CAPSULES” OR “TIME BOMBS”?

According to the International Time Capsule Society's William Jarvis, ideal type time capsules incorporate “deliberately sealed items scheduled for retrieval on a specified date,”¹ although some capsules have rather vague time horizons. Time capsules of a variety of sorts have been constructed for thousands of years; Jarvis has construed the “golden age” of millennia-

spanning time capsules (and an era in which the term “time capsule” gained broad currency) as 1935–1982.² Other identifying phrases for time capsules have been contemplated: the term “time bomb” was seriously considered for a 1939 World's Fair time capsule initiative that was championed by Westinghouse Corporation's G. Edward Pendray.³

Archival efforts have flourished for centuries, providing means for the collection and organization of objects. Time capsule development, however, has a somewhat different approach than many archives. The capsules in effect enable individuals to provide a kind of protection for certain items for a period of time, as well as designate when the conceptual ‘shrink-wrap’ shielding these items from application or modification is removed. Sometimes efforts to protect the items fail, as in the case of a Tulsa, Oklahoma capsule, constructed

in 1957, that contained a 1957 Plymouth Belvedere. When the capsule was opened in 2007 it was discovered that the vehicle had spent much of the latter half of the past century in four feet of standing water, somewhat lessening its archival and financial value.⁴

Time capsules allow their developers to skip a generation (or two, or even more) in determining when their gifts reach their intended recipients, much in the way grandparents may choose to skip a generation when leaving their businesses to their more competent grandchildren rather than sons or daughters. Also, like many grandparents, time capsule constructors sometimes have the objective of intervening in the future in explicit ways by leaving advice or even warnings. Through their storage methods, contents, or even direct instructions, time capsules often include some attempts to influence the behavior of their future audiences toward certain moral or social goals. For example, the AIDS Foundation Time Capsule was constructed in June, 1990 in San Francisco with more than 500 messages to its intended recipients 50 years in the future.⁵ Time capsules can suggest certain uses either openly or implicitly or even place minor demands on those who access them by requiring some effort to decipher their enigmatic contents. One illustration is a capsule constructed in 1929 that was opened at the centennial of Avenue Elementary School in Roosevelt, New York, containing some items that “remain mysteries” to those who opened the capsule, such as “an ornamental pin shaped as a firefighter’s hat and scraps of red cloth stuffed inside an envelope printed with Zerbe Construction of New York.”⁶ Perhaps an individual with some level of knowledge of the community or acute detective skills could determine why the items were considered significant enough to include in the capsule.

Methods of storage for the items in time capsules vary widely, from tossing them into a tar pit to safeguarding them in vacuum-sealed containers. Some military-related imageries (such as missile-shaped containers) have become common in time capsule initiatives, as in the capsule of Clark College of Vancouver, Washington, that was created in 1984 and opened in 2009 to celebrate a major campus anniversary.⁷ Time capsule construction kits for community, business, or family use have become a commodity, such as those pro-

duced by the Original Time Capsule Company located on Memory Lane in Greenfield, Indiana.⁸ The kits sold by this company often include a checklist of everyday household items that might be of interest to individuals in the future as well as a metal drum to hold the materials. Pre-millennial emphasis on time capsule construction as a form of celebration accounts for some of the spikes in sales of such kits in previous decades.

A number of time capsule development efforts are moving to the Internet and social media, with certain online collections explicitly labelled as intended for consumption by audiences at some point in the future. About Yahoo’s 2006 digital time capsule effort, Bill Gannon stated, “What we’re basically trying to do is create a shared digital mosaic of our time by allowing users to define what’s important to them,” and noted that prayers and poems as well as many digital photographs and videos (which Yahoo subsequently cleared for copyright status) were included in the effort.⁹ Efforts to work on such collaborative digital efforts can work to enhance group functioning.¹⁰ However, the notion that the individuals of the future will have the interest, time, leisure, and know-how to decipher vast repositories of electronic materials stored in a variety of formats may be problematic. Many devoted families have themselves given up the task of maintaining complete sets of archival videos, photographs, and text files that are readily accessible electronically rather than in some orphaned format. Temptations to fill digital time capsules with unedited materials (and trust that generations to come will have suitable search mechanisms) may be problematic, providing less direction than non-digital capsules as to what is considered essential in their developer’s era. Whatever methods for safekeeping and modes of storage are chosen, time capsule development often involves attempts to influence the behavior of their future audiences, and thus influence the future itself.

TIME CAPSULES AS TIME MACHINES

Time has long been a source of fascination and even obsession, with complex systems of calendars and clocks emerging for many centuries even in relatively primitive societies.¹¹ Science fiction helped to expand the discourse on time: H. G. Wells’s *The Time Machine* inspired generations of individuals to consider time in a new perspective,¹² and *Doctor Who* spawned considerable discourse on time travel.¹³ Items and entities (both physical and virtual) are linked to specific time frames. Time capsules are forms of time machines (although only in a forward direction), attempting to transport a set of protected items from the time frame in which they are currently associated to a particular juncture in time when they might be needed or perhaps be of interest. The Crypt of Civilization project at Oglethorpe University (sealed in 1940) is intended to be opened in 8113, a date reportedly chosen as a result of some calculations linked with the start of the Egyptian calendar many centuries ago.¹⁴ A capsule that was constructed in 1957 with the aid of MIT’s Harold Edgerton, a pioneer in strobe-light photography, is slated to be opened in 2957.¹⁵ In contrast, Yahoo’s 2006 digital time capsule initiative (just described) is designated to be opened in 2020, a time frame far shorter than the Oglethorpe and MIT efforts.¹⁶

Time capsules are construed as neither fully present in today’s world nor completely coupled with the future, making consideration of their time dimension somewhat problematic. The ‘forgetting’ of the location of time capsules is a symptom of this precarious status. Many time capsules have been effectively ‘lost.’ The memory of time capsule development and ceremonial placement may indeed remain either in records or in the gray matter of individuals involved, but the precise coordinates of many time capsules are indeed missing. Consider the recent dilemma of the staff of Mattersey Primary School in South Yorkshire. The time capsule that was buried in 1989 was slated to be opened in

2014. However, even though there is a photo of the ceremony in which it was buried, the exact location of the capsule is reportedly unclear. Former staff members are being queried as to details of the ceremony so as to gain some insight as to where the capsule resides.¹⁷ Another time capsule that has been misplaced is the town of Kimberly, Wisconsin’s 1985 effort, which reportedly contained such mundane yet revealing items as news clippings, coins, and a bottle of New Coke.¹⁸

The time capsule efforts of Mattersey Primary School and the town of Kimberly reflect the dual sides of many time capsule initiatives: an aspect of forgetting is entangled with the processes of creating social memory. (The International Time Capsule Society has a registry of many time capsules along with precise locational coordinates so as to mitigate some of these lapses in memory.) Time capsule development is indeed part of the creation and projected dissemination of social memory, which can serve cognitive and strategic roles in structuring perception and constructing identities, as well as crafting explanations for situations and determining social policies.¹⁹ Time capsules direct the attention of future audiences to a selection of items associated with a particular period. Capsules also help make the decision as to which items to identify with certain eras; they are generally designed to preserve traces of culture for future generations, though some of the capsules are better equipped for this mission than others. For example, the openers of a 1927 time capsule during the half time of a 1999 University of Washington basketball game faced a disappointed crowd as the contents included a 1927 dime, student handbook, some newspapers and other paper materials, and little else.²⁰

TIME CAPSULES AND THE PROJECTION OF FUTURE AUDIENCES: WHO WILL OPEN TIME CAPSULES?

Often a specific event or ceremony is arranged to start the time machine (by sealing the time capsule) and in effect propel the time capsule toward its destination. On certain occasions, such as the silver or golden anniversary of a small school such as Mattery or a nation's celebration of the millennium, time capsule development can have special immediate significance. Such a focal point can be a vital part of the social construction of a celebration, and time capsule development is a convenient "pseudo-event," in the perspective pioneered by Daniel J. Boorstin.²¹ However, communication with the future remains a consistent theme in time capsule development efforts. Through their storage methods or contents, time capsules often include explicit attempts to influence the behavior of their future audiences, not just educate today's students or entertain the nation's current assortment of citizens. Rarely is the complete indifference of the future time capsule openers projected. The openers of time capsules are often construed as being committed to the arduous task of placing their contents in the context of a past civilization or social grouping.

Time capsule construction can create a kind of 'instant history' as their creation and internment is celebrated. This may serve to explain the relative popularity of time capsule development in contexts such as the US that distinguish and celebrate relatively few cultural landmarks in comparison with many other nations. Time capsules can serve to engineer a form of historical legacy and thus possibly appeal to the interests and inclinations of future historians. Creation and sealing of time capsules are often associated with major ceremonies populated with suitable societal representatives.

Those who assemble time capsules often conduct a kind of thought experiment, posing a future archivist or historian, a composite of who may open the capsules in the future. In 1976, then ex-Governor Ronald Reagan expressed conflicting thoughts and feelings about this effort:

Someone asked me to write a letter for a time capsule that is going to be opened in Los Angeles a hundred years from now, on our tercentennial. It sounded like an easy assignment. [...] we live in a world in which the great powers have poised and aimed at each other horrible missiles of destruction, nuclear weapons that can in a matter of minutes arrive at each other's country and destroy, virtually, the civilized world we live in. And suddenly it dawned on me: those who read this letter a hundred years from now will know whether those missiles were fired...²²

Time capsules can suggest certain uses either openly or implicitly or even place demands on those who access them by requiring some considerable technological effort to decipher their contents. However, some level of humility concerning our knowledge of the time capsule receivers should be in place (as recommended by Reagan). Individuals ten decades from now will know a great deal about our successes and failures (although we will not know about theirs), and will possibly place the objects we provide in the contexts of our attainments.

The process of constructing capsules may indeed give us an enhanced sense of our place in relation to generations to come and possibly a higher level of stewardship of our planet's resources – that is if the future archivists and historians (and other recipients

of the materials) are indeed projected as intellectually curious and well-meaning. However, those who posit that the openers of time capsules may not be committed to the arduous task of placing their contents in the context of a projected, distant civilization may be less moved by the time capsule exercise and positive behavioral and attitudinal change is less likely to develop. The inevitability that our age will be given some form of historical treatment by our descendants can draw us to collaborate with them in some way. Some of our treasured items, as well as some of our castaway junk, will indeed be examined in depth for various components and variables with strategies we cannot imagine at this point. The effort to give these future analysts of our culture a bit of steering in one direction or another is tempting.

The notion of the time capsule was originally developed and enacted in eras in which information was relatively scarce. In past decades, books and news stories were printed on paper for consumption by individuals who were able to hold them in their hands or to get close enough to see them. Placing an item in a time capsule in earlier eras could entail a sacrifice, denying current individuals access to particular items or documents in favor of some future receivers. In a world of mass production and digital renderings, such sacrifices are rarer. Time capsules are often created by individuals and their families; but they are also constructed by larger collectives, such as social and professional groups, towns, and even nations. A time capsule created in 2009 for a hospital in Sutton-in-Ashfield, UK, contains such items as needles, x-rays and a hearing aid, placed in a lead casket underground.²³ The Oglethorpe University capsule includes "over 640,000 pages of micro-filmed material, hundreds of newsreels and recordings, a set of Lincoln logs, a Donald Duck doll and thousands of other items, many from ordinary daily life. There also is a device designed to teach the English language to the Crypt's finders."²⁴ These

everyday items were chosen by hospital staff and university members respectively to reflect the eras that their capsules were constructed and sealed.

Although time capsules may contain mundane objects (such as newspapers or everyday artifacts), the significance of their contents can be substantial for their constructors and relate to how they would want to be seen by posterity. Time capsule construction, although mired in the collection of ephemera, is intimately associated with the future. Shaping the behaviors of individuals decades if not centuries hence is difficult, however earnest the mission. People who ultimately open time capsules may hold a wide assortment of notions of history as well as have a variety of immediate needs for survival. They may overlook the importance of 'everyday' folk or may adopt an alternate, more populist stance. They may have plenty of leisure time with which to ponder the capsule or be strapped with daunting requirements for survival. Constructions of these future audiences that are made by time capsule developers can reflect the anxieties and promises of their times.

It is a common activity to ponder how we will be viewed by those who survive us, and to attempt to affect those lasting images and impressions. The goal of having a strategic influence on the structure of the investigations relating to us and our societies is more ambitious, and is often an element of the processes discussed in this essay. Aiding archivists and historians in the future to make sense of one's own age requires at least some basic assumptions about what history will constitute and who will be involved in constituting it. The rhetorical plea is quite common: an assortment of politicians, scholars, businesspeople, and community members have wondered aloud about how they will be treated by posterity and reportedly have sometimes attempted to shape current events and related records accordingly. There are many questions about

the shape that the professions of archivist and historian will take in decades and centuries to come, if they will continue to survive at all. Despite these uncertainties, a great deal of effort today is spent in appealing to those who will interpret the past or in contributing to their analyses in some way.

VARIATIONS ON THE THEME OF TIME CAPSULES

Time capsules can be constructed with a great deal of deliberation; their developers can also take advantage in an opportunistic sense of accidental accumulations of materials. Inadvertent time capsule creation venues include tar pits and tunnels, places where stuff is jettisoned or just lands up when large projects fail. A number of abandoned tunnel and subway plans inadvertently created kinds of time capsules, sealing away the artifacts of particular periods for future analysis. Some modern landfills will themselves serve as kinds of time capsules, with the various layers and segments associated with the discards of their day, many of which will not decompose for millennia.²⁵

Composing messages, conducting events, or compiling items with the notion that someone in the future will care to decipher their meanings also works on the small, individual scale than it does at the larger and more anonymous level of society. For example, some physicians are promoting the use of time capsule development as a way to support memory therapy in dementia patients.²⁶ Andy Warhol's massive collections of chronologically-organized boxes of items, which he explicitly labelled as "time capsules," have sent his biographers into motion: they are cataloguing the items and trying to make sense of their sequence.²⁷ The most optimistic visions for the eventual use of time capsules (such as the one at Oglethorpe) convey comparable activities: future archivists and historians may indeed open the capsules and attempt to make sense of their contents. On the other hand, the contents of the capsules may be ignored entirely.

Explicitly didactic time capsules are yet another variety. The optimistic portrait of inquisitive (or bemused) archivists and historians of the future sifting through a time capsule in order to obtain clues about past civilizations may take its place alongside projections that these individuals would be desperately searching for technical know-how for basic survival. The *Long Now Project* is designed to provide the latter group with the information they might need for basic survival.²⁸ The project has a constantly refreshed repository of expertise that serves as a 'start-up kit' for civilization. It would thus be a way to 'reboot' society if it should fail either through miscalculation (as in nuclear war) or some form of natural disaster. The Foundation contracted with Norsam Technologies to capture information using etched metal that stores considerable amounts of text and images but is still readable with an optical microscope. Foundation members reasoned that since future generations may not have access to advanced technologies, storage mechanisms steered toward survivalist aims should not require them.

The didactic aspects of time capsules also reach to the current generation of educators and students. Time capsules are an object of interest to a number of scholars, as well as the future archivists and historians who may play a role in interpreting them. For instance, the International Time Capsule Society at Oglethorpe University was established in 1990 to study time capsules in general as well as monitor the impact of Oglethorpe's own time capsule. The Massachusetts Institute of Technology (MIT) has nine or ten

capsules, with the first reportedly constructed in 1916 to commemorate the institute's move from Boston to Cambridge.²⁹ An assortment of schools has integrated the study of time capsules along with capsule development into high and middle school history curricula,³⁰ and a children's book equips young people for the task of selecting items.³¹ Educational efforts to inspire stewardship of the planet often point to the need to increase consciousness about and concern for posterity,³² and work with time capsules may indeed inspire such a perspective.

SOME CONCLUSIONS AND REFLECTIONS: COLLABORATING WITH POSTERITY

This article examines several aspects of the events involved with time capsule development, with an emphasis on how objects are chosen and subsequently removed from the normal course of everyday use. As items are fondled, shared, washed, or used as eating utensils, they can change in character. They are often broken or lost. Time capsules sequester and protect items for future generations, although sometimes they fail in these purposes (as in the case of the water-soaked 1957 Plymouth Belvedere previously described). Contexts for development of time capsules vary widely, including their use in the pseudo-events associated with certain celebrations. Placing an item in a time capsule can enact a perspective on the future as well as a viewpoint on how archivists and historians of generations to come will conduct their business.

Those who develop or maintain time capsules often segregate and store significant amounts of material, making decisions about which items would be most interesting, useful, or revealing about the era and thus hoping to effectively collaborate with future analysts. The temptation to store large amounts of minimally-edited material may make digitally-based time capsule collections less useful in some respects, unless search capabilities are designed to provide adequate direction as to their developers' intent.

As these digital time capsules proliferate, difficulties are compounding with the growth in number and variety of digital formats being used to capture data. Archivists and historians who have the technological savvy and excess resources to reconstruct various file formats will be adequately served by the electronic materials from this age that may survive. A grimmer picture places these historians with less adequate technologies and thus less access to the wealth of information and know-how from previous ages. The optimistic projection that individuals in the future will be well-equipped both intellectually and technologically to interpret the contents of time capsules may indeed be sustaining to us in our efforts to connect with the future, but may not be realistic. The immediate benefits of time capsule construction (such as forcing individuals and social groups to make and share projections about the future) may be more firmly in hand. Sealing a time capsule or assigning a specific opening date to a capsule produces a form of history in itself and can focus group effort toward a common

goal. A complicating factor is that many time capsules are 'lost' (their locations not remembered in a way that makes retrieval feasible), and thus continuing association with the capsules may be problematic. The mechanisms of forgetting may indeed be somehow protecting the items in the capsules from manipulation or even raiding.

As dangers to modern culture escalate, the activity of leaving messages to the distant future can take on some urgency and the projected archivist or historian notion more complexity. Constructions of the archivists and historians of the future and the notion of how posterity will view us can have impacts on how we conduct our lives and create particular artifacts today, possibly having an influence on what we construct and what we discard and making us better stewards of the planet. We may also choose to view those who will potentially open the capsules as students, perhaps ones who are desperate for information about topics related to survival. The notion that our civilization can directly serve as teacher to future generations can have pessimistic dimensions. We would hope that our descendants would be well equipped with the basic conceptual and material items they need. A hopeful projection construes those who open our capsules as enlightened and empowered individuals seeking to understand our society from our vantage point, unsealing the capsules in a timely fashion and in conditions of leisurely deliberation. ■

REFERENCES AND NOTES

1. William E. Jarvis, "Modern Time Capsules: Symbolic Repositories of Civilization," *Libraries and Culture* 27, no. 3 (Summer, 1992): 279.
2. William E. Jarvis, *Time Capsules: A Cultural History* (Jefferson, NC: Mcfarland & Co. Inc., 2003): 138.
3. Lester A. Reingold, "Capsule History," *American Heritage* 50, no. 7 (November 1999): 88.
4. Stephen Perkins, "Boxed Up: Time Capsules, Archives, and Magazines," *Afterimage* 35, no. 3 (November 2007): 7.
5. Bill Hayes, "AIDS at 50," *New York Review of Books*, June 6, 2011, <http://www.nybooks.com/blogs/nyrblog/2011/jun/06/aids-30-time-capsule> (accessed February 1, 2013).
6. Winnie Hu, "Lost, Now Found, a 1929 Time Capsule Proves Transporting," *New York Times*, March 23, 2009, 16.
7. Howard Buck, "Clark looks forward, back as it fetes 75th Time capsule to be opened at Tuesday events," *The Columbian*, May 06, 2009, 1.
8. Todd Gould, "Original Time Capsule Co," *Indiana Business Magazine* 43, no. 1 (January 1999): 56.
9. Anick Jesdanun, "Yahoo Starts Digital Time Capsule," *The Associated Press*, October 12, 2006.
10. Jo Ann Oravec, *Virtual Individuals, Virtual Groups: Human Dimensions of Groupware and Computer Networking* (New York, NY: Cambridge University Press, 1996): 148.
11. Anthony Aveni, *Empires of Time: Calendars, Clocks, and Cultures* (Boulder, CO: University Press of Colorado, 1995): 38.
12. H. G. Wells, *The Time Machine* (New York: W. W. Norton & Company, 2008).
13. Gary Russell, *Doctor Who Encyclopedia* (London, UK: Random House, 2011).
14. William E. Jarvis, *Time Capsules: A Cultural History*.
15. Don Troop, "Time Capsules Resurrect a Sometimes Forgettable Past," *Chronicle of Higher Education* 54, no. 39 (June 6, 2008): A1-A8.
16. Anick Jesdanun, "Yahoo Starts Digital Time Capsule," *The Associated Press*, October 12, 2006, paragraph 1.
17. "Doncaster School Forgets Time Capsule Location," *BBC News*, March 13, 2012, <http://www.bbc.co.uk/news/uk-england-south-yorkshire-17341824> (accessed May 1, 2012).
18. "Where did the time go?" *American City & County* 126, no. 2 (February 2011): 22.
19. Alon Confino, and Peter Fritzsche, eds., *The Work of Memory: New Directions in the Study of German Society and Culture* (Urbana, IL: University of Illinois Press, 2002): 8.
20. Don Troop, "Time Capsules Resurrect a Sometimes Forgettable Past," *Chronicle Of Higher Education* 54, no. 39 (June 6, 2008): A8.
21. Daniel J. Boorstin, *The Image* (New York, NY: Vantage, 1992).
22. Edmund Morris, "Longing for Reagan," *Time* 148, no. 9 (August 19, 1996): 50.
23. "Hospital to bury NHS time capsule," *Evening Post* (Nottinghamshire), July 07, 2009, 8.
24. "What Is a Time Capsule?" Oglethorpe University, http://www.oglethorpe.edu/about_us/crypt_of_civilization/international_time_capsule_society.asp (accessed May 1, 2012).
25. Victor Buchli and Gavin Lucas, *Archaeologies of the Contemporary Past* (New York: Routledge, 2001): 63.
26. Robert M. Lawrence and Julia H. Head, "A Time Capsule for Patients with Dementia?" *Journal Of The Royal Society Of Medicine* 98, no. 3 (March 2005): 116-118.
27. Stephen Perkins, "Boxed Up: Time Capsules, Archives, and Magazines," *Afterimage* 35, no. 3 (November 2007): 7.
28. Stewart Brand, *The Clock of the Long Now: Time and Responsibility, The Ideas Behind the World's Slowest Computer* (New York: Basic Books, 1999).
29. Don Troop, "Time Capsules Resurrect a Sometimes Forgettable Past," *Chronicle Of Higher Education* 54, no. 39 (June 6, 2008): A1.
30. C. Glennon Rowell, M. Gail Hickey, Kendall Gecsei and Stacy Klein, "A School-Wide Effort for Learning History via a Time Capsule," *Social Education* 71, no. 5 (September 1, 2007): 261-266.
31. Patricia Seibert, *We Were Here: A Short History of Time Capsules* (Minneapolis, MN: Millbrook Press, 2002).
32. David Lowenthal, "Stewarding the Future," *Norwegian Journal Of Geography* 60, no. 1 (March 2006): 15-23.

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statement

My work reflects my long-term, often rocky relationship with technology, from advanced information technology to more traditional time capsule platforms.

My writing, teaching, and design efforts have tight couplings with the history of computing and transitions from physical to digital (and back again). In the 1970s I was in a white coat behind a glass partition, feeding Hollerith punch cards into recalcitrant card readers at a research outpost. (I still proudly display the scars on my hands from attempts to rescue jammed cards.) Computing technology had intensely physical aspects, from whirring disk packs to spinning tapes. In the 1980s I joined the Computer Sciences Department at the University of Wisconsin at Madison, teaching programming and artificial intelligence. My early focus was the course *Computers in Society* (cs 550), one of the first classes developed on the topic. I had to defend the course from many individuals who did not perceive the value of studying the impact of computers on human institutions, or perhaps believed that this impact was minimal. One of these individuals declared “Why not develop a course on *Toasters in Society?*”

In all my efforts I sought to deflate the rampant hype associated with technology at the same time that I tried to delineate and possibly shape its impacts on society. I took on roles that allowed me access to a variety of discourses about technology and forced me to listen. My explorations of computing and social issues in the 1990s included some participant research in privacy, as I took the role of the chair of the first state-level council on information technology and privacy concerns, based in Wisconsin. The Privacy Council listened to the demands of individuals who wanted to have the digital versions of their fingerprints destroyed after they were cleared of arrests. The physical, inked copies were destroyed by the authorities but the digital traces were not. I also worked to increase the accessibility of technology to individuals with disabilities, listening to their accounts of technology usage. My 1996 book *Virtual Individuals, Virtual Groups: Human Dimensions of Groupware and Computer Networking* (Cambridge University Press) outlines linkages of the notions of narrative and storytelling with the design of information technology.

Time capsule research has been a natural extension of my interests in technology and society. Many time capsule efforts indeed have a digital component. However, as William Jarvis – one of my correspondents on time capsules and the author of major works on this topic – relates, time capsules often contain physical items that can be described as mundane or even trivial. At one juncture in time, however, those items were important to somebody, and were seen as needing to be removed from the stream of possessions and everyday stuff. The material in time capsules – whether physical or digital – does not fully belong to the now, but rather is in transit to the future. One can only wish these items safe passage. The narratives that these items will be a part of are not ours to compose. ■

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