Constructing the Prehistories of a Place in Europe: Visual imagery for a feminist archaeology

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Abstract

John Berger recognized that oil painting was the essential medium of visual imagery of early capitalism. Both Berger and Susan Sontag have drawn attention to the power of the photographic visual imagery for modernistic capitalism. My argument in this paper is that computer generated imagery (CGI) is both the ultimate medium for the expression of the visual imagery of later corporate capitalism, and the medium through which some of the concepts of the feminist critique of science (including archaeology) may be expressed, including a celebration of the ambiguity of the archaeological record and the multiplicity of its interpretations, the multiplicity of scales at which prehistory may be written, and the multiplicity of prehistories that are out there.

> "Iconography comes upon us like a thief in the night - powerful and remarkably efficacious, yet often so silent that we do not detect the influence. Pictorial imagery catches us unawares because, as intellectuals, we are trained to analyze text and to treat drawings or photographs as trifling adjuncts. Thus while we may pore over our words and examine them closely for biases and hidden meanings, we often view our pictures as frills and afterthoughts, simple illustrations of a natural reality or crutches for those who need a visual guide. We are most revealed in what we do not scrutinize." (Gould, 1993)

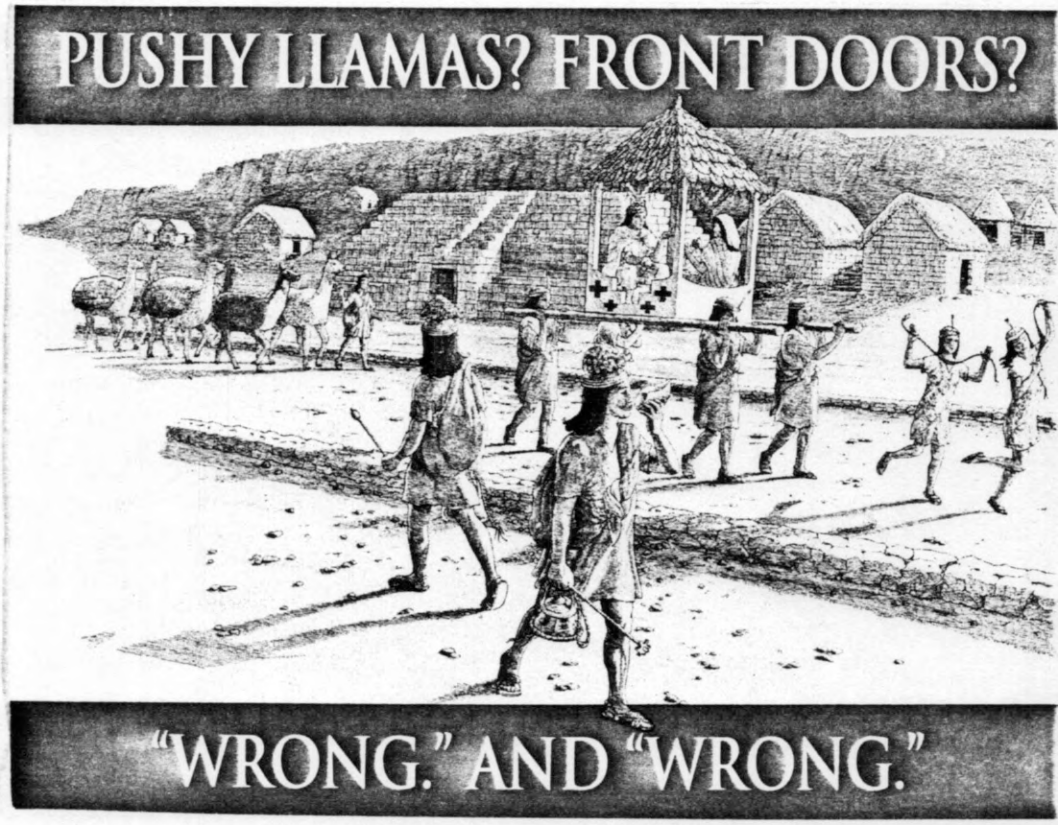
Oil painting: the visual medium of early capitalism

John Berger recognized that oil painting was the essential medium of visual imagery of early capitalism.

Slide: Sir Edward Poynter's "Israel in Egypt"

> "Oil painting celebrated a new kind of wealth - which was dynamic and which found its only sanction in the supreme buying power of money. .....The visual desirability of what can be bought lies in its tangibility, in how it will reward the touch, the hand, of the owner" (Berger, 1972:90)

> "The highest category in oil painting was the history or mythological picture. A painting of Greek or ancient figures was automatically more highly esteemed than a still-life, a portrait or a landscape. Except for certain exceptional works in which the painter's own personal lyricism was expressed, these mythological paintings strike us today as the most


PUSHY LLAMAS? FRONT DOORS?
"WRONG." AND "WRONG."

> vacuous of all. They are like tired tableaux in wax that won't melt. Yet their prestige and their emptiness were directly connected.....They did not need to stimulate the imagination. If they had, they would have served their purpose less well. Their purpose was not to transport their spectator-owners into new experience, but to embellish such experience as they already possessed....The idealized appearances that(the spectator-owner) found in the painting were an aid, a support, to his own view of himself. In those appearances, he found the guise of his own (or his wife's or his daughter's) nobility" (Berger, 1972: 100) .

Archaeological oil painting

Some of the images that are invoked in this session have much in common with the historical paintings of the oil painting era of the first flourishing of capitalism. These are essentially images for us spectator/consumers/appropriators. They are not the result of a discourse between artist/archaeologist and spectator. The aim is the to sell the book or magazine in which the painting is produced. I am not saying that there is no attention to material parameters, but the philosophical biases and beliefs of the illustrator (and presumably his/her archaeological client (if they are not the same person) is very clear, but it has not been the subject of explicit discussion.

> " Hack work is not the result of either clumsiness or provincialism; it is the result of the market making more insistent demands than the art". (Berger, 1972: :88)

Berger's critique of the historical oil painting could well apply to the production of many (perhaps most) archaeological paintings of prehistoric visualization

Slide: National Geographic Lepenski Vir

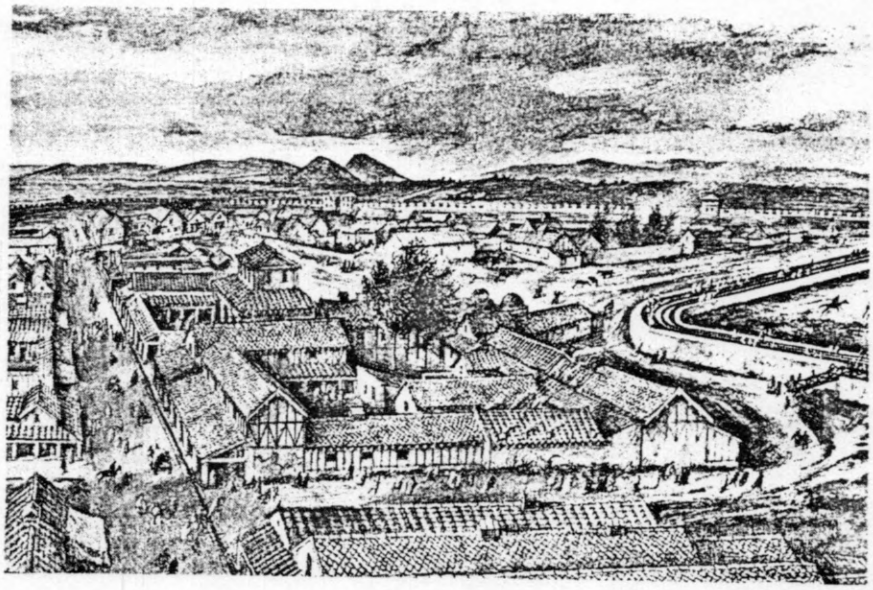
Slide: Smithsonian book

> Look at any detail in the drawing, from the distance of the llamas from the royal litter to the bulky folds in the blanket cape of the ... messenger-runner, in front -- and be assured: It's not fantasy. It's <u>fact.</u>

One of the exceptions is Alan Sorrell, who was very aware of the traps that can befall an artist in these attempts. He heavily criticized Sir Edward Poynter's "Israel in Egypt" and, by extension, most "artists' impressions" of archaeological reconstructions:

Slide: Sir Edward Poynter's "Israel in Egypt"

> "It (Israel in Egypt) totally fails as a convincing reconstruction, not because there is anything wrong archaeologically (the artist ties himself into knots to get all the details recorded) but because it is so inartistic, a



Wroxeter: Temple and Houses.

> mere conglomeration of unassimilated facts ...Not only is this picture too large, but in addition it batters us with pedantic detail so that out imagination has no chance tat all to function, and we are left flattened and bored (precisely what Berger was getting at). This is an instance of non-art, whereas the reconstruction which is conceived as a work of art has that super-realism, the realism of the dream which fixes for ever the image of the scene or incident or personage depicted ...No accumulation of detailed accuracy can take its place, but there is no reason on earth why the two qualities should not go together or coalesce (Breughel)." (Sorrell, 1973: 181)

In his reflexive expression, Alan Sorrell introduces another actor in the production of the images :

Not only 1) Image for us the modern spectator/consumers/appropriators
But also 2) Image for us the modern creators/producers/archaeologists.

Slide: Sorrell: The Lunt

His own reconstructions are enlivened and demonstrate a different quality from most other artists' visualizations of the past in that he is genuinely interested in these reconstructions as a humanistic effort. Much of what Sorrell regards as "artistic visualization" reminds me of Berger's ideas below on the use of photography to express memory. And these ideas of the coalescence of details of material parameters and a realism of the dream will become an essential topic of discussion at the end of this paper.

What photography did.

There is a large body of literature that deals with the relative merits of photography and drawing as media of interpretation of reality and creating illusion(Berger, 1980; Sontag, 1977) .

> "Cameras define reality in the two ways essential to the workings of an advanced industrial society: as a spectacle (for masses) and as an object of surveillance (for rulers)"(Sontag, 1977:178).

Photographic images have unlimited authority for a society that is eager to have a substitute for reality since they are a trace not an interpretation of reality (Sontag, 1977:153). For the mature capitalist society in the aftermath of the Industrial Revolution photographs became "coveted substitutes for first-hand experience ..... indispensable to the health of the economy, stability of the polity, and the pursuit of private happiness" (Sontag, 1977:153, paraphrasing Feuerbach, 1846).

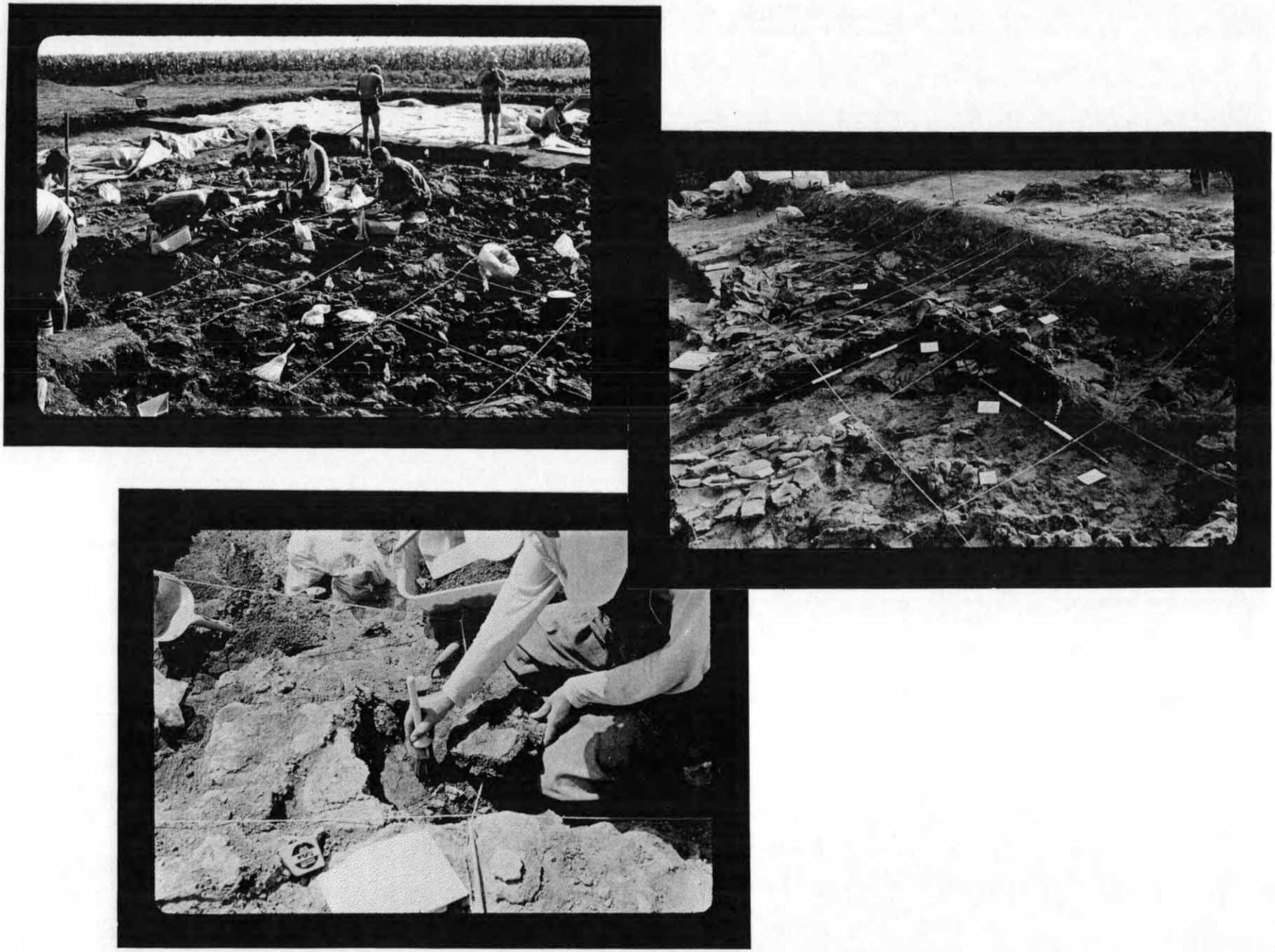


Figure 4. Process of excavation of the burned clay floor and superstructural rubble of House 2 and 5 at Opovo, Yugoslavia.

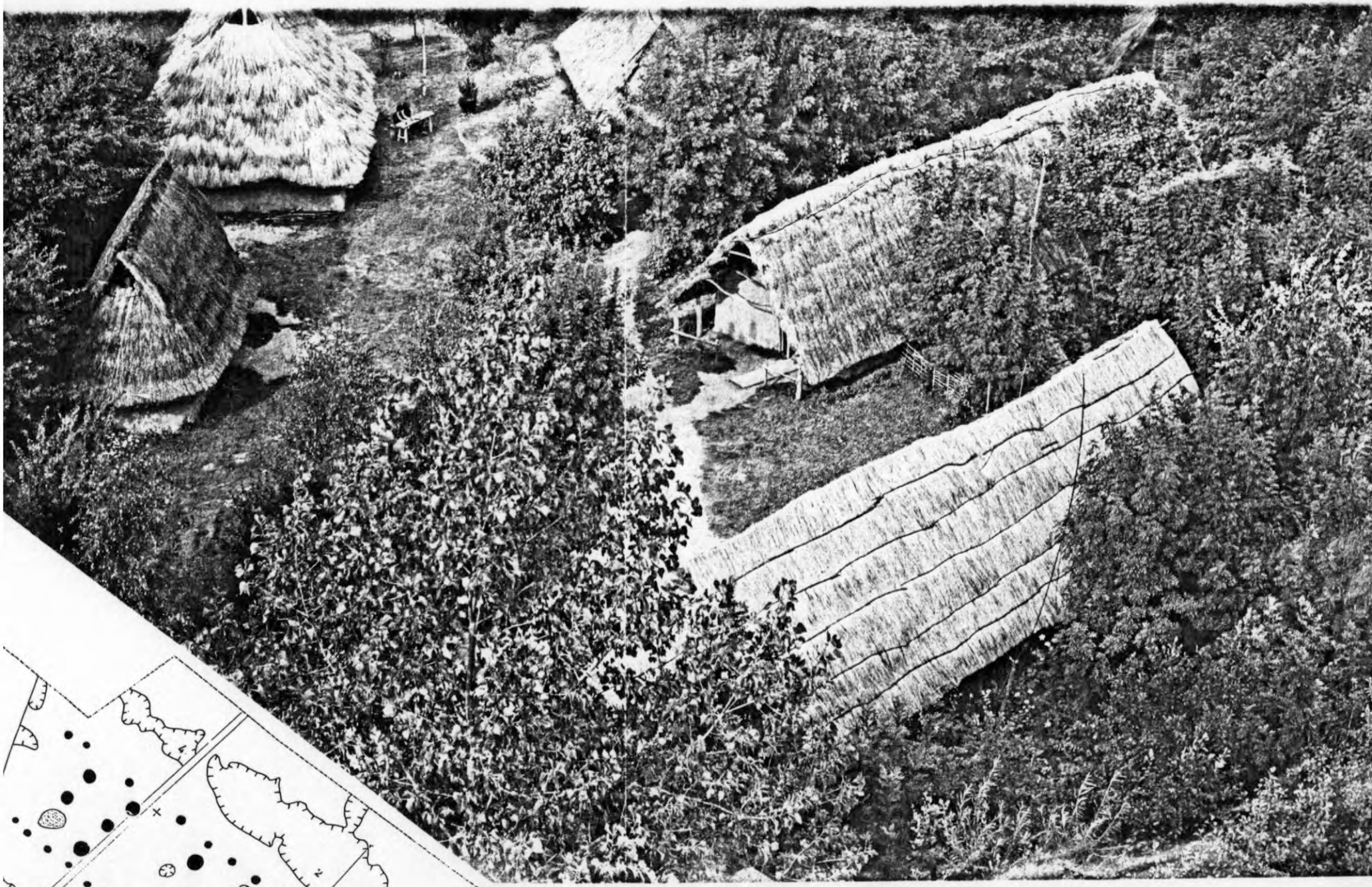
Photographs are included in reports of archaeological excavations, for example of architecture, even though they are expensive to reproduce. They are claimed to be useful aids to the scientific enterprise of archaeological practice, as an objective record, as a trace of reality. They seem to provide authentic, unselected, uninterpreted record that the archaeologist was really there and really did excavate that stuff. Thus there is a feeling that they contain room for something else to be observed; someone has the chance to see the data with different eyes and experience and themselves participate in the interpretation process.

As Berger and Sontag both point out, however, this privileged position given to photographs in imagery is easily shown to be a fallacy. Photographs may have the authority of being a trace of reality, but they are nevertheless subject to different "readings" as well as manipulation in the construction of a desired reality. Photographs of archaeological architecture are of cleaned exposed structures, foundations, profile.

Slide: Photograph of the excavation of House 2, Opovo
Photographs of archaeological domestic (non-monumental) architecture are not visually impressive, however, apart from the public record of excavation. They are widely separated from the original function and meaning since the building is an exposed remnant, brought back to life for an instant - click - and then destroyed for ever. The impact of this kind of photograph might be enhanced by the drama of the Archaeologists as they expose the structure: how to do it, what to record, what to draw, what to photograph, before destroying it.

Life-size reconstructions or replicas
As I think of images of archaeological architecture that do have an impact on both archaeologists and the public, I move from photographs of archaeological remnants of buildings that are images of the archaeologists' reality, to visual images of a *past* reality of these structures. I have discussed the limitations of oil and other paintings to do this. But what about photographs of a replica of reality - the replica of a building reconstructed from the archaeological stumps? Hobley warns that

> "A full-size reconstruction can be as misleading as an artist's impression, but the physical reconstruction does at least extend beyond pure theorisation and attempts *to come to terms with three-dimensional reality*". (Hobley, 1982:223-228).



ouvert de 10 à 12 h

14 à 18 h

SAMEDI, DIMANCHE, JOURS FERIES

de 14 à 18 h

Hobley is worried (with good reason) that his experiments (and photographs of them) might be "confused with the certainty of historical fact", they are just "one (but very solid and tangible) of many possible interpretations". This problem of the impression that reconstructions leave in the minds of the public, and how these impressions rebound into professional and popular literature is what the rest of this paper is about. Photographs of three-dimensional replicas add enormously to the visual impact of the photographic image and the evocation of familiar experience (Audouze & Buchsenschutze, 1989; Monnier, 1991; Petrequin & Petrequin, 1988). The "reader" can be seduced into viewing them uncritically and giving them the authority of "archaeological fact" and an authentic picture of the past reality . And in some cases it seems even that the creators of the photographs might even be encouraging such a seduction (see Smithsonian picture).
Slide: Photograph of the replica of a Neolithic house by Petrequin

This same criticism applies even more sharply to the construction of past realities through computer generated images, in which the distinction between empirical data and interpretation is often smudged by the creators.

Computer generated imagery (CGI): the essential expression of corporate capitalism
Much of what Berger has written with regard to the relationship of oil painting and early capitalism resonates for the relationship of computer generated imagery and late capitalism.

> "what distinguishes oil painting from any other form of painting is its special ability to render the tangibility, the texture, the lustre, the solidity of what it depicts. It defines the real as that which you can put your hands on. Although its painted images are two dimensional, its potential of illusionism is far greater than that of sculpture, for it can suggest objects....filling the entire world"(Berger, 1972:88).

The images in both cases appeal to the sense of touch.

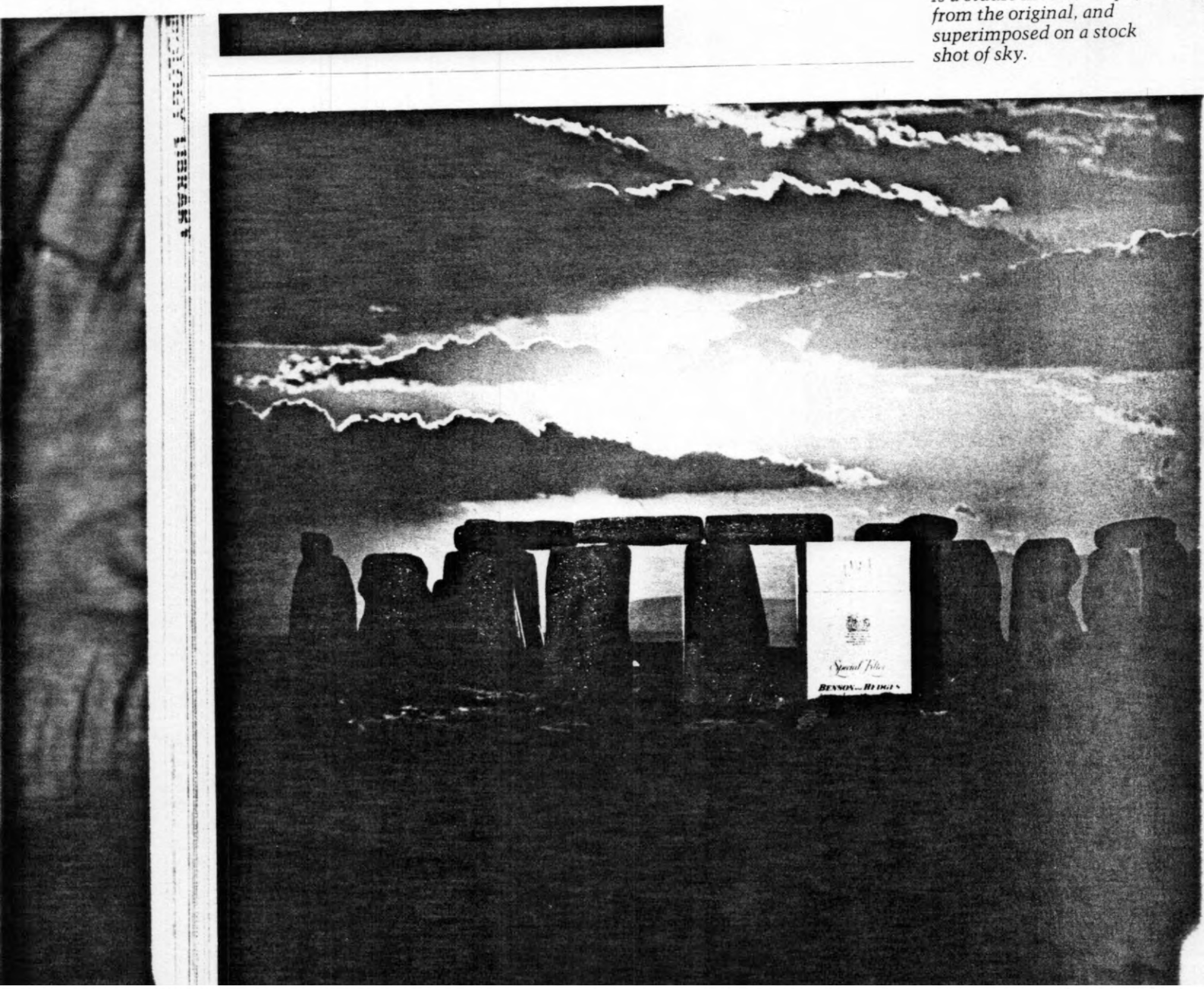
There is a direct continuity from oil painting to commercial photography and thence to CGI. "It speaks in the same voice about the same things"(Berger, 1972: 134). Publicity is the culture of the consumer society. CGI developing out of commercial photography was created by publicity technologists to express consumer ideology in conventional public imagery formats (advertisements, movies, TV). Berger leaves off his story at the end of the 1970s with the effect of color photography.

Although its painted images are two-dimensional, its potential of illusionism is far greater than that of sculpture, for it can suggest objects possessing colour, texture and temperature, filling a space and, by implication, filling the entire world.

Holbein's painting of The Ambassadors **(1533) stands at the beginning of the tradition and, as often happens with a work at the opening of a new period, its character is undisguised. The way it is painted shows what it is about. How is it painted?**

THE AMBASSADORS BY HOLBEIN 1497/8–1543

from the original, and superimposed on a stock shot of sky.



> "A technical development made it easy to translate the language of oil painting into publicity clichés. This was the invention ...of cheap colour photography. Such photography can reproduce the colour and texture and tangibility of objects as only oil paint had been able to do before.....Both media use similar, highly tactile means to play upon the spectator's sense of acquiring the real thing which the image shows (facts or product) In both cases his feeling that he can almost touch what is in the image reminds him how he might or does possess the real thing" (Berger, 1972: 140-141).

slide: Holbein:
slide: Advertisement: Benson and Hedges set monolithically on Stonehenge

The same can be said of CGI with these qualities and effects even more intensified. Through multimedia effects it is the aim of CGI artists to reproduce reality until the spectator is genuinely confused and almost disoriented by an impression of ultra-reality, appealing to as many senses as possible: sight, smells, sounds as well as touch until Virtual Reality is constructed.

CGI and the art of creating Virtual Reality.

The impact of the recent technology to produce computerized imagery of rendered drawings that look like photographs, is immense and highly complex. CGI allows an artist to animate visual images. Unlike cartoons of Stone Age Disneyland, the animated computer-generated images look "real". We can fly above landscapes that create an illusion that we are really there. Landscapes that are the pure figment of the imagination, or are the equivalent of "artist's reconstructions" of recent or very distant past, have the illusion of reality. It seems that we can grasp the past as though we had truly traveled back in time. The potential of such images to leave lasting impressions on the brains of people of all ages is enormous. The responsibility of artists creating these images is actually a heavy one, much heavier than most realize, I suspect.

In fact, as with many of the oil paintings of early capitalism, especially those of historical and mythical scenes, much of the computer generated art of late capitalism is created to be consumed, so that its sales effectiveness is privileged over attention given to its content.

> "In the language of oil painting...vague historical or poetic or moral references are always present. Publicity needs to turn to its own advantage the traditional education of the average spectator buyer.

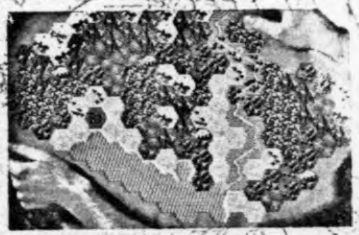
THE LOST TRIBE

A modern game of strategy in a prehistoric world.

Volcanic eruptions have devastated the area, leaving a small tribe of homeless survivors. You must lead them on a perilous journey to an ancient homeland known only from legend. But beware! Not everyone is happy that you are in charge. Burgle thinks he is the rightful leader and has vowed to overthrow you.

Leading the Lost Tribe will be challenging, it will be fun, it will be totally outrageous! This unique strategy game combines adventure and surprises to build decision-making and leadership skills in children aged eight and older.

What better way to develop leadership abilities than to become a leader? Taking risks, thinking strategically and making good decisions are all part of the learning adventure.



Use the ancient mapskin to plot your course.

Consult your *Prehistoric Guide to Survival* for advice.

You never know when something strange will happen!

- **Full-motion video clips, plus digitized photos and music!**
- **Strategy, adventure and surprises! Loads of fun for the entire family!**
- **Builds decision-making and leadership skills.**
- **Great for social studies!**

LAWRENCE PRODUCTIONS

> What he has learnt in school of history, mythology, poetry can be used in the manufacturing of glamour" (Berger, 1972: 140)

Gould has noticed a similar phenomenon as he critiques to visual imagery of dinosaurmania:

> "We are now in the midst of the greatest vigor and upheaval in fossil iconography since the genre emerged. The reasons are many and partly due to mammon - a morally ambiguous reality in our commercial world, but glitzy models and paintings now command big bucks in our era of theme parks and cereal boxes, where moving and roaring plastic models bring more people into museums than magnificent skeletons of real bone."(Gould, 1993)

Slide: Jurassic Park

The consumer is addressed and persuaded to buy the commodity: a movie ticket, a videotape, a CD-ROM, a video game by the images. But he or she cannot participate in the creation of the images through the interpretation of data. The consumer may only passively view and collect and accumulate the images, the database, the information networks, and dream.

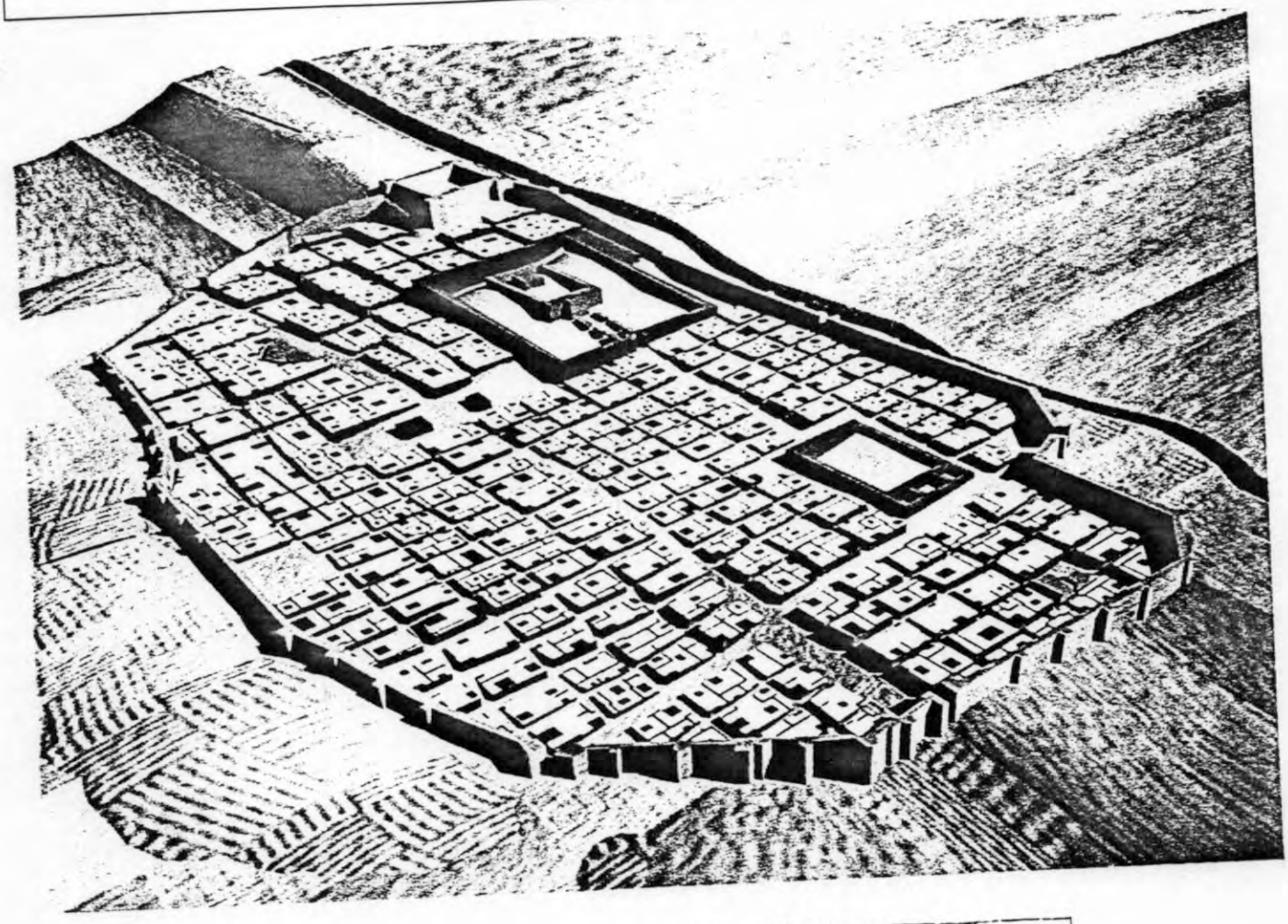
Slide: The Lost Tribe: CD ROM for games

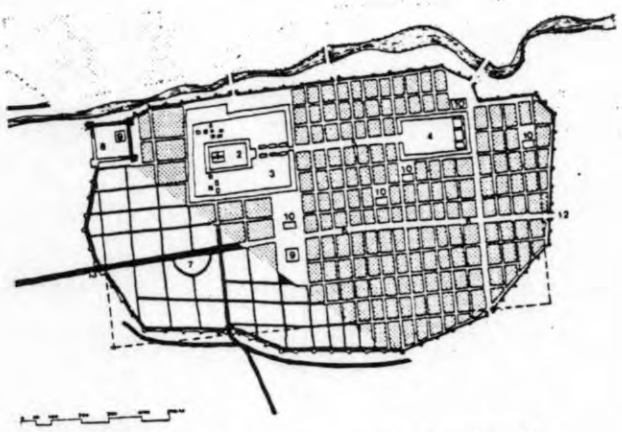
> Six challenging scenarios, over 80 outstanding photographs, full-motion video clips, music, sound effects, random events and an on-screen encyclopedia make The Lost Tribe more than a strategy game. It's hours of prehistoric fun for the entire family!

Slide: CDROM History of the World: the "information superhighway"

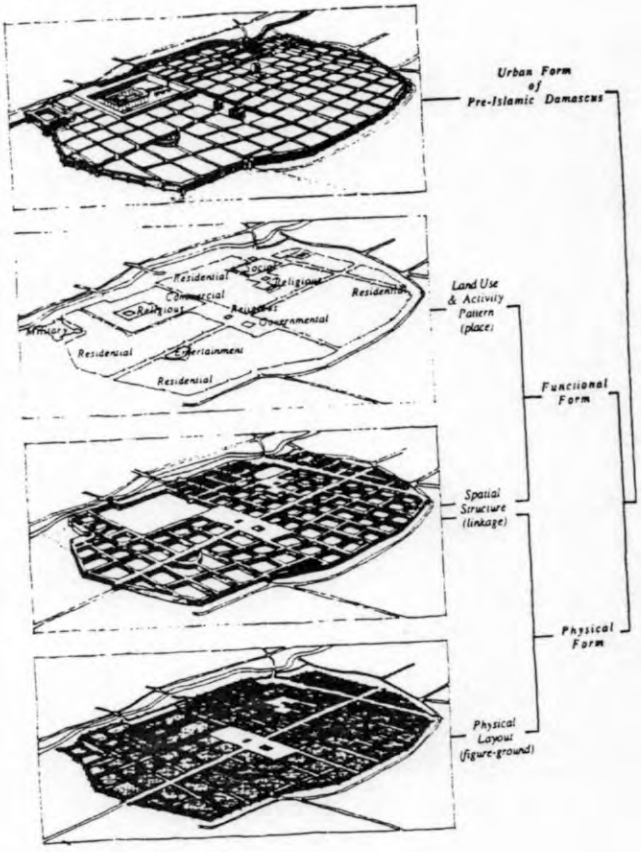
"Explore the ages with History of the World - a complete and authoritative world history reference on a single disk"

CGI has been incorporated into movie and TV films in order to visualize the future (the George Lucas *Star Wars* projects, for example) and, more recently, to visualize the past, as in *Jurassic Park*. If we ask what the artist/creators/producers of the CGI gain by using CGI, it would certainly include "visual effects" in the visualization of past or future realities that go beyond the illusion of realities that photography can achieve, but which achieve an illusion of reality that paintings cannot. So the aim, in most cases, I would say is to provide an illusion of reality of the past or future so that its visualization for the consumer is more effective. Now we have to ask, is that





1. Temple of Jupiter turned Church of St. John 2. Temenos 3. Peribolus with shops added 4. Agora turned Forum with shops 5. Colonnaded Street 6. Decumanus later named The Straight 7. Theater transformed to warehouses 8. Castrum 9 Byzantine Palace 10. Byzantine Church 11. Thomas Gate 12. Eastern Gate 13. Jabiah Gate



2. A computer reconstruction of pre-Islamic Damascus.

3. The plan of Byzantine Damascus at the beginning of the seventh century before the Arab takeover (based on Sauvaget, Elisseeff, and the Arab Chronicles).

4. The urban form of pre-Islamic Damascus analyzed.

to be the aim of the use of CGI in the production of images that use archaeological data? Is this indeed the potential of this medium?

Nezar AlSayyad[1] of the School of Environmental Design, U.C. Berkeley, has created the architectural landscape of Mediaeval Islamic cities using CGI (AlSayyad, 1992) "....to give alternative reconstructions of the cities and to scan the transformative processes". The images in combination with photographs of clay miniature replicas and perspective projections are used to chart "the physical form of the cities at various stages of their development (and give) a glimse of how the residents of these cities may have experienced them. It also allows the opportunity to understand and decipher the reasons behind certain urban decisions" (AlSayyad, 1992:33). The scale and view chosen for the images is in general one that views the city from the outside, as a whole and from heaven. This is a visualization of a reality in which no people can be seen. AlSayyad is optimistic about the potential of CGI in his field, especially once it is linked with a historic database:

> "Computer simulations are proving to be effective mechanisms in analyzing the history of urban form: they allow for the visual addition of new textual, architectural and archaeological findings: they can be used as tools for the implementation of historic preservation programmes; they are useful in producing animated images for teaching purposes; and their potential use as a tool for designing in historic districts is evident. For both designers and historians interested in the history of urban form a new door is being opened, the potential of which seems almost limitless"(AlSayyad, 1992:33).

Slides: Al Sayyad.'s project

CGI has been used in the production of the PBS series *500 Nations* that will comprise 8 hours of the history of Native American peoples. I have not seen any footage from this series. My remarks are based only on the stills and an article interviewing the producers of the series. Attention to detail and authenticity in reproduction of the past reality of the North American peoples is very much in the forefront of the producers' minds (5 seconds worth of CGI illusion of reality takes 8 weeks worth of production time). It is described as a

> "fact-based series .... (which) will feature archaeological scholarship made accessible through an engaging use of live-action POV

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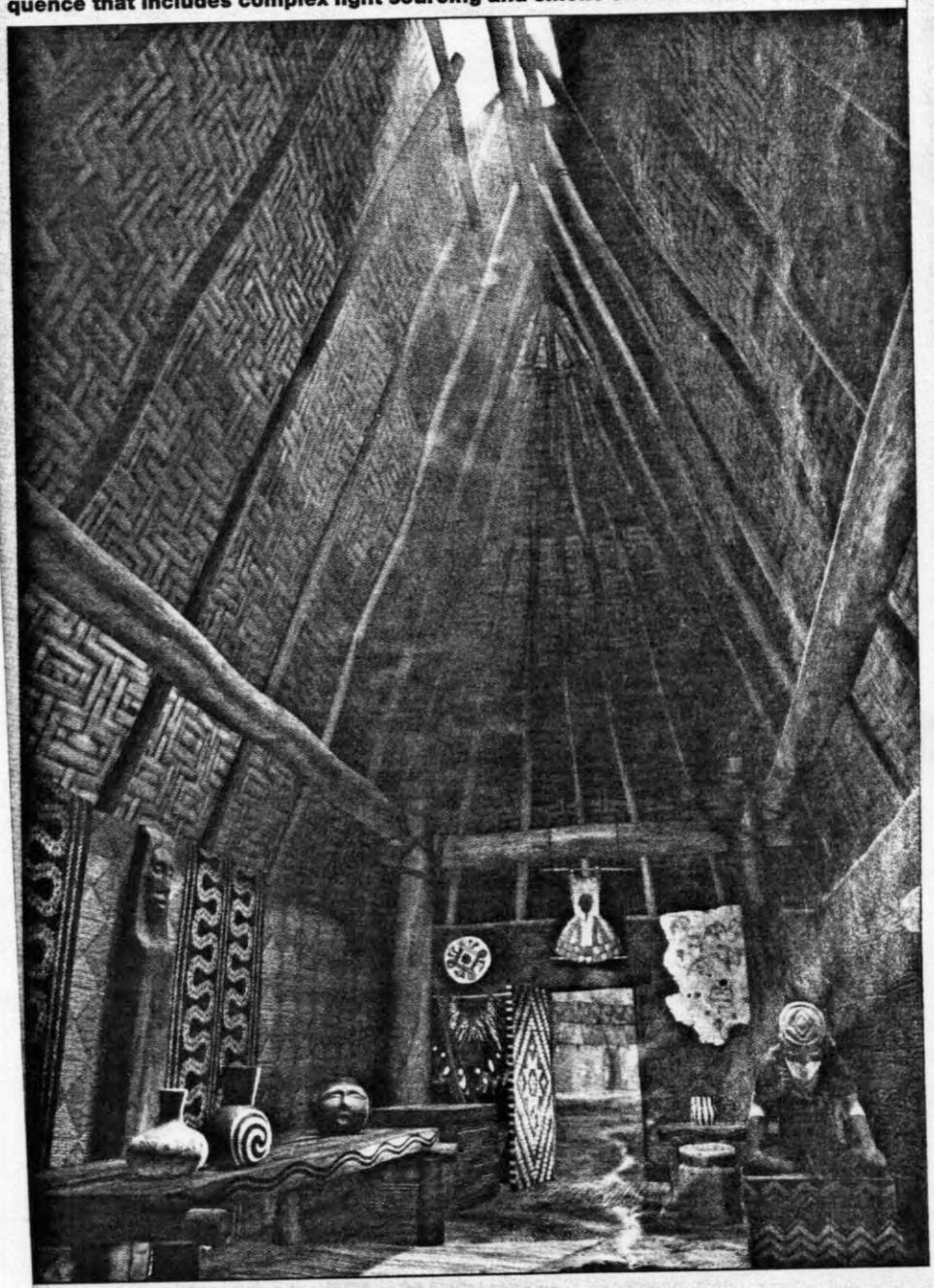
[1] I am grateful to Nezar Al-Sayyad for his help and encouragement in this enterprise, including the loan of several of his images for this presentation.

oming down at Santa Barbara Studios,
that started up three years ago in
wer's garage. This was the only way
gone down with his share of over-
started as supervisor of special effects
obert Abel & Associates, and, later, as an em-
ployee of Disney, worked on *Tron*). Without bloating,
SBS has turned out extraordinary work on low budgets
for the Smithsonian Institution ("Other Worlds") and
for a PBS television series, *The Astronomers*. "The cost
of the equipment, software, and the talent pool of pro-

reations,
t with actors would
roposal than what was
Jim Wilson and Kevin

The men's house at Cahokia is accurate from the wall textures to the carved wooden figure on a woven box platform. This is a dynamic move in a lengthy sequence that includes complex light sourcing and smoke effects.



> photography and one of the most precise, if not downright appealing, uses of digital effects in TV history" (Solman, 1993).

The producers of the series have an interesting twist, however, on the use of CGI as resistance to the passive consumerism ideology that has dominated the US entertainment industry:

> The footage we've taken all over the continent will allow the stories to come to life in front of people's eyes, There's a great willingness of the audience to be part of the creative process, an active participant. More and more it's an untapped quality of American entertainment" (Solman, 1993: 33, quoting an interview with the producer, Leustig).

Slides: 500 Nations

But how is the audience to participate? Spaces are recreated, interiors of rooms, outside courtyards, and so on. And you the audience move through these villages. Or rather you are led through them. But these spaces are empty of people, except in the distance for scale. The producers have deliberately avoided using actors or any other tangible means to visualize the social actors within these spaces. The problem of how to humanize the spaces is a fascinating challenge, and one to which I shall return later in this paper. I do not know exactly how they intend to solve the problem in *500 Nations*, but it seems to me that denial of prehistoric social actors and visualizing empty spaces is not the solution.

500 Nations, however, may have some interesting surprises for us. There are some special narrative moments, in which they

> "will display Koyannisquatsi-like abstractions - time lapse, slow-motion cloud and shadow formation, abstract framing, filitered colorations.....These will work as visual focal points when dealing with dreams, visions, or stories with emotional payoffs.....when we're hearing from the hearts of the people" (Solman, 1993: 34).

Thus a form of surrealist imagery is to be used for special effects, but for the most part, the films will have familiar texts in "realistic" contexts. As I shall discuss below, my own feeling is that such "abstract" and "dreamlike" imagery could be the very heart of our visualizations of past realities.

Going beyond virtual reality with CGI: Visual imagery in the construction of engendered prehistories.

The limitations and potential of CGI imagery are the result of the artist not the technology of the medium itself. Thus it is *not* unavoidable that these techniques of

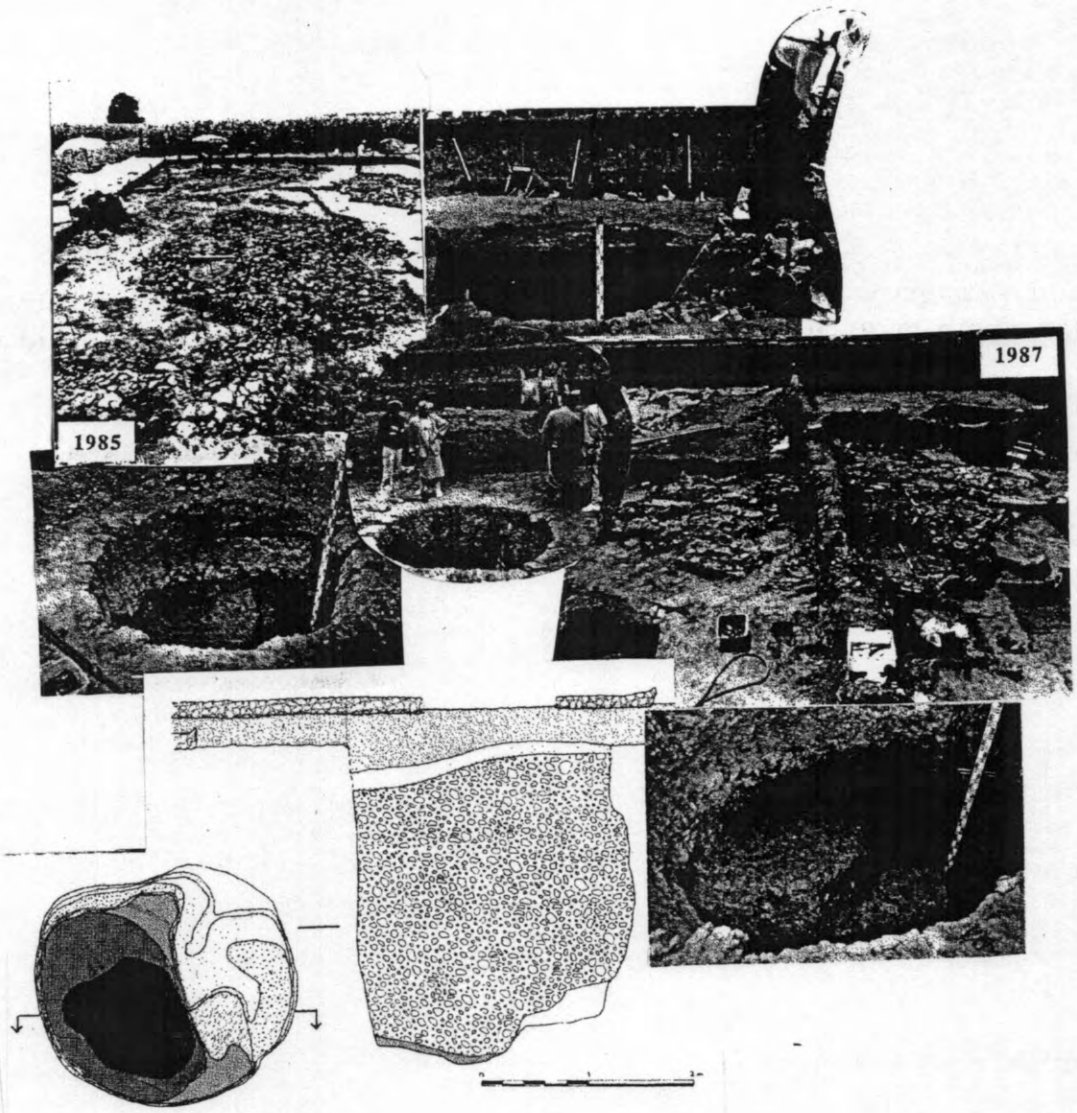
image production lead to an acceptance of the same ideology of consumerism as described above. In the hands of, for example, feminist archaeologists, CGI techniques seem to be the first image-making medium that might lend itself to a feminist/postmodern critique of knowledge-production

Stephen Jay Gould's statement quoted here introduces some of the characteristics of post modernism and the feminist critique as they might be reflected in visual imagery. It leads me into a discussion of how CGI might, in fact, be used in a very different way were it in the hands of a feminist or postmodern artist-archaeologist.

> "I am intrigued to note how closely the trends in prehistoric iconography match the winds of change labeled as post modernism in so many other fields, from literature to architecture - so we are once again taking part in a general social movement, not merely following the norms of science by responding to improvements in factual; knowledge (and techniques)....If post modernism is diverse, nonhierarchical, playful, personal, pluralistic, iconoclastic, and multifarious in its points of view - whereas modernism sought a simplified and rule-bound canonical consensus - then the maddeningly varied modern art of fossils certainly qualifies for the label" (Gould, 1993).

The very foundation of archaeology has been coming under increasing challenge within the discipline since the early 1980s through the post modernist critique, and especially the feminist critique of science. As part of this critique, the idea of archaeology as an objective empirical inquiry into the re-construction of a past reality has been challenged by the idea of archaeology as a discipline that constructs many realities of the past, some more plausible than others. The idea here is that, although there may be empirical material parameters of the archaeological record about which a consensus can be reached, the prehistoric realities that are constructed are the result of subjective *interpretation* of the empirical data (Hodder, 1991; Wylie, 1989).

Ambiguities are inherent in the interpretation of archaeological data from its very retrieval to its visualized reconstruction. A multiplicity of interpretations, according to a feminist critique of science, does not indicate a weakness of will or ambivalence. Rather, the same empirical data can and should be subject to a critical interplay of a variety of interpretations by different archaeologists holding different perspectives and philosophies about the past and the nature of archaeology.


1985
1987

Much of post-modern and feminist archaeology has been deconstructive in nature. It is a challenge to go beyond critique to *construct* a feminist prehistory that does not embrace the traps of positivism and essentialism that have been critiqued. While maintaining high standards of empirical investigation, it is also crucial, according to the feminist critique of science, that the plurality of plausible views is maintained during the *presentation* of the interpretations. This is a challenge that has already been taken up in history, art history and geography, as Gould states, but is as yet undeveloped in archaeology. It is this target that lies behind the visual and textual challenge to conventional (academic) methods of reporting and presenting archaeological research through the media of narratives, creative visual images, and non-linear texts (Handsman, 1990; Hodder, 1989; Shanks, 1991; Spector, 1991; Tringham, 1991a; Tringham, 1991b).

The Chimera (Opovo) Project

Chimera: an illusion or fabrication of the mind or fancy: a utopian or unrealizable dream or aim

The purpose of this project is in fact to produce a series of visual images that explore the potential of CGI to challenge the conventional media and metaphors through which archaeological practitioners carry out their discourse with the "great public" out there. The aim of the project to construct a prehistoric place through this medium: the Eneolithic village of Opovo, in the valley of what we call the Tamis river, a tributary of the river Danube, in a country that we know not how to name.

The data base is a part of the prehistory of Europe, a period in which there is particularly rich data on the early agricultural societies, known as the Neolithic and Eneolithic periods, encompassing a period of ca. 6500-3500 BC. I draw directly on the results of the archaeological excavations that I have been carrying out for the last 15 years of villages from this period of prehistory, located especially in the former Yugoslavia. In my most recent field project at Opovo, my own intellectual transformation had an effect not so much on the retrieval of data at Opovo 1983-1989 (Tringham, et al., 1992; Tringham, et al. 1985), as on its subsequent interpretation (1989-present) (Tringham, 1991a; Tringham, 1991b; Tringham, in press). The results of these excavations are being published in conventional academic format for reporting empirical research results. The empirical architectural data from these excavations will provide the basis of the development of images and text to express a feminist prehistory of this place.

Feminist critique: multiple interpretations: celebration of ambiguity.

The domestic architecture of Neolithic Europe, especially that of Southeast Europe, is not visibly attractive and its reconstruction is fraught with ambiguities. The ground plan and foundation works and, possibly, also the lower part of the superstructure are all that usually remain of a building. Almost all of the houses in question were burned. The process by which prehistoric buildings are reconstructed by archaeologists is a complex series of inferential steps. Often one interpretation of this architecture has been presented as *the* correct prehistory that has been discovered (Gimbutas, 1991). The process of inference from artifact to interpretation is mystified and ambiguities of the archaeological record are hidden.

But in fact, there is ambiguity at each step in the recording and interpretation of archaeological architecture and its graphic illustration. Archaeologists have always been mediators between the data and its interpretation, structuring their reader's and their own experience through selection of *what* to re-present and *how* to represent it: by text or by image. Post-modern archaeology, including the feminist critique, is about the *critical awareness* of the archaeologist as active mediator limiting and encouraging the reader to view, visualize, imagine, and participate in the interpretation of the built environment of the past (Bourdier, 1989; Tringham, 1991b).

The project which I have been undertaking with the Opovo Project team in collaboration with Michael Ashley of the Dept. of Anthropology and Julian Liao of the School of Environmental Design at U.C. Berkeley[2] merges a relational data-base software (4th Dimension for the Macintosh) with CGI software (Alias for Silicon Graphics and Raydream for the Macintosh). The results of the excavations at Opovo have been converted to a relational data-base in which the material parameters of the prehistoric architecture are embedded and nested. On the basis of these data and its interpretation in terms of house construction, occupation and destruction, and the different histories of the houses and their surrounding features, starting from archaeological floor plans and other empirical data from excavations at Opovo, we begin to visualize the excavated part of the village. Variables such as light, roofing,

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[2] I am grateful to Michael Ashley, the creator of the Chimera Project (his Senior thesis), and Julian Liao, the creator of the Alias images, for their help and inspiration in converting the Opovo data into a relational database and computer-generated images. I am also grateful to two members of the Opovo Archaeological Project - Nerissa Russell and Mirjana Stevanovic, who prepared the Opovo data for this manopulation anf publication. I am grateful to the School of Environmental Design of U.C. Berkeley, which has allowed me to use the Silicon Graphics/Alias combination in the "Imagination Laboratory".

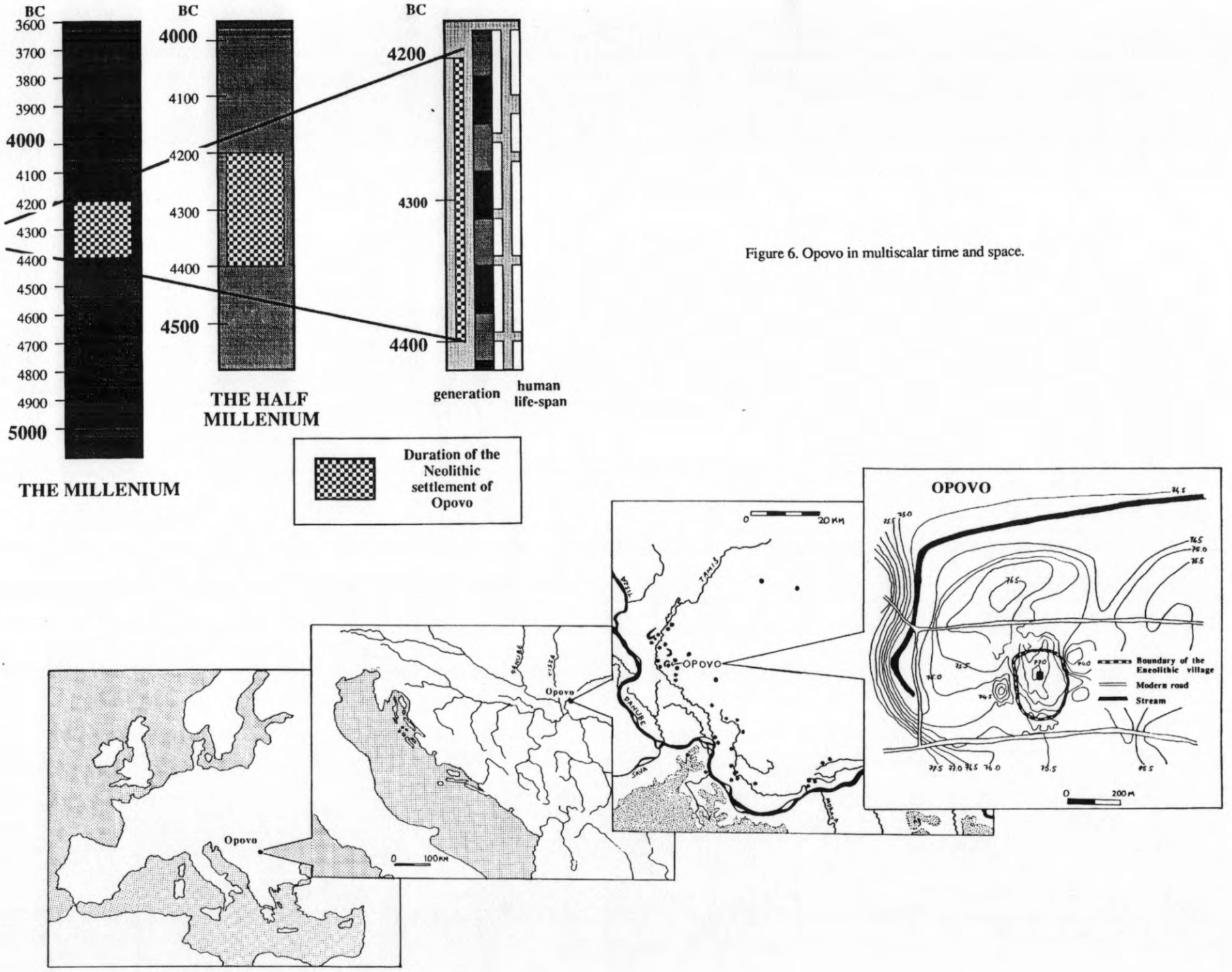

Figure 6. Opovo in multiscalar time and space.

interior space, wind, air quality, point of view are manipulated and multiple interpretive models of the same archaeological data projected and juxtaposed. The aim here is to show that the architectural remains are subject at every stage to multiple interpretations. As we examine the different interpretations of roof, or destruction, for example, we can bring up the embedded data that provides the material parameters of the interpretation, but we can also bring up the data from other sources that has informed and provided the inspiration for the imagination and therefore the interpretation.

Through the multimedia effects that may be coupled with CGI it is possible to introduce other variables that affect the interpretation of the archaeological architecture. These are variables that have been less privileged than the visual and the tactile in the consideration of place, space and landscapes. I am referring to sound and smell, that have traditionally been relegated to a fuzzy phenomenological and poetic studies of place, but may yet come into their own as vital variables (Bachelard, 1969; Porteous, 1990; Tuan, 1977) Sound, especially, is a feasible variable to be introduced with computer-generated images; smells may as yet be outside current technological capabilities, although they have been successfully introduced in museum exhibits (at York, for example).

Slides: Chimera project,
Opovo: Filevision,
House-burning

The feminist critique: multiple scales.

Feminist archaeology means writing the prehistory of *people*. This means social actors who have gender, personalities, biographies. Archaeology, I believe, can make a real contribution to *multiscalar* explorations of history. Archaeology has traditionally given priority to the long-term comparative view and to the regional and generational scale of analysis of social and cultural evolution. Feminist archaeology adds a focus on the *microscale* of the lives and intentional actions of individuals as they practice, negotiate, and change the longer-term structures (Giddens, 1984; Pred, 1984).

Through techniques of CGI such as fade in and out, animation, unlimited variability of viewpoint, and juxtaposition, CGI can express many different scales of viewing, analysis and interpretation, both in terms of the empirical archaeological data and in the construction of prehistories. In this extract from the Chimera project,

we fly above the excavation in the view of God the Archaeologist, and enter into the most detailed heart of the archaeological data base through the stratified cultural deposits. As earlier in the painted image of Divostin [3] we shall fly above the village of Opovo, view it at a regional landscape view and enter into the most intimate view of inside the room of a house.

> "Fade in will show helicopter view heading toward Opovo site in a gentle curve, always keeping site centered. Begin at edge of contour map, approx. one kilometer from site. As we edge closer to the site various CUT TO's occur, as outlined, getting more specific the closer we get to the site. The main objective is to show the process of how we came up with this particular representation of House 5, Opovo, and how alternatives could have been produced just as well. The second objective is to show both the power and the limitations of technology with respect to archaeology.
> FADE IN
> Helicopter view above marshy flatlands, reeds, water and mist.
> Overcast, cloudy and wet. Camera dollies toward site in sweeping arc clockwise, keeping site centered in frame. Continue until first site curtain is visible." Michael Ashley. Chimera Project 1994.

Slides: Engendered Places,
Etiole,
Divostin,
Chimera project

Feminist critique: multiple histories

The Chimera/Opovo project develops the theoretical implications of this computerized imagery for the construction of multiple realities of the past, all of which are illusions, but based on the material parameters based empirically in the archaeological data.

We can begin to look into some of the potential of CGI for the expression of multiple histories through the viewpoints of different prehistoric actors as well as the viewpoints of archaeologists of the same landscape during and after excavation. For this attempt, I have incorporated Berger's ideas of the relationship of photography and memory (Berger, 1980: 52-67) Berger suggests that photography replaced not paintings, but *memory*. In the same way, I would like to suggest that when we try to construct past realities, instead of trying to envision the past *as lived*,

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[3]by Catherine Chang, formerly of the School of Environmental Design, U.C. Berkeley.

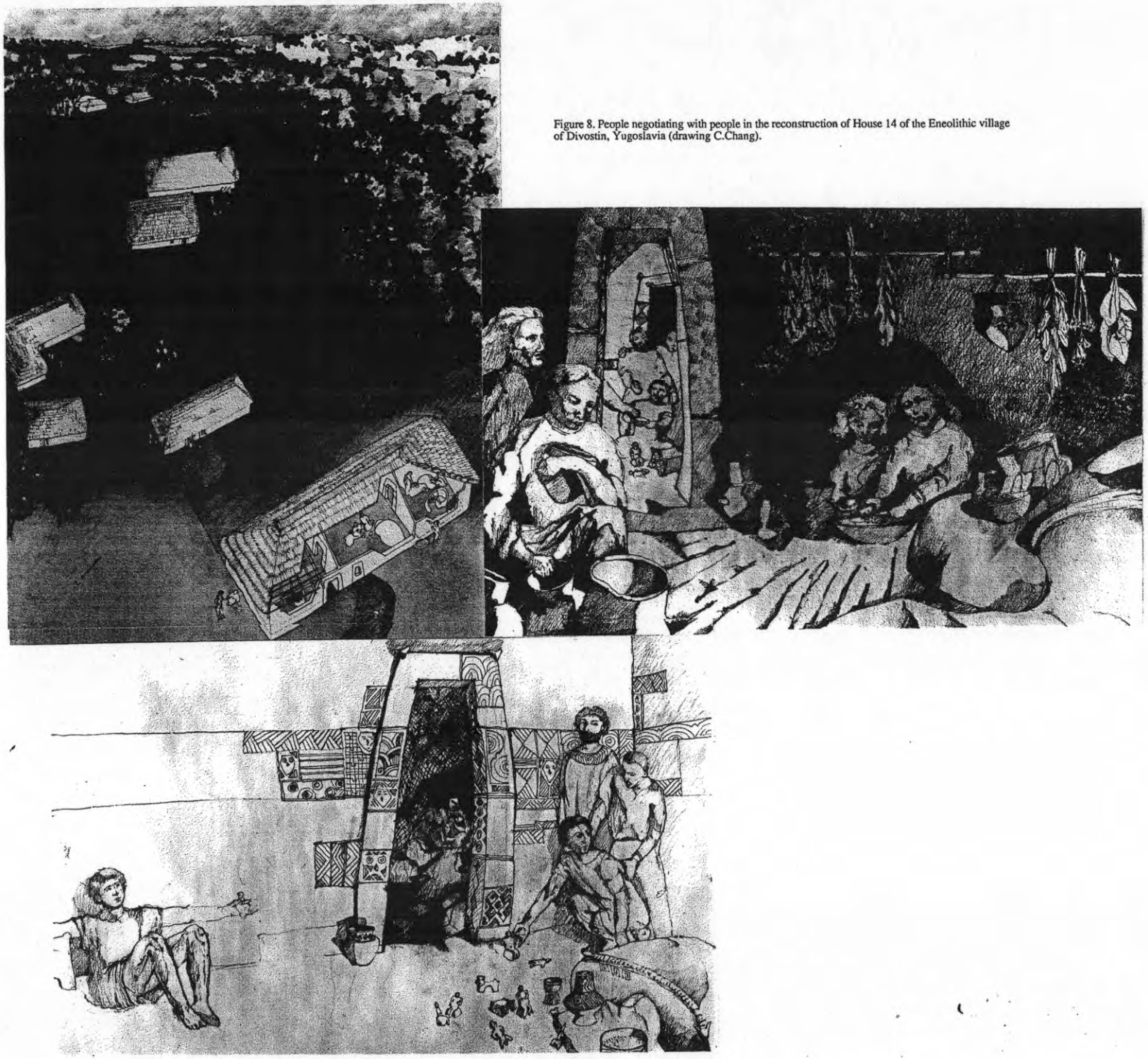

Figure 8. People negotiating with people in the reconstruction of House 14 of the Eneolithic village of Divostin, Yugoslavia (drawing C.Chang).

we try to envision the past *as remembered*. by these various actors If we do this, then we have a very different aim in our imaging of the past. Instead of presenting the past as a real (or Virtually Real) lived-in linear past that is experienced generically and normatively by all actors, we can present a past that is a dream, remembered piecemeal, selectively, and radially and uniquely by the different actors. The multiple histories that we can express through CGI are more surreal than virtually real.

Drawings that look like photographs (CGI) can be imbued with the same power as photographs, as described by Berger (Berger, 1980: 64), to offer a memory, an experience, even if still via interpretation. Berger's idea is to construct a meaningful context of private memory for a photograph by its place in an ongoing "text" of photographs and images, not lineally, but radially because this is how memory works (Berger, 1980: 64). You need to situate a photograph so that it acquires something of the surprising conclusiveness of that which was and is; to make the photo stand out without hiding what you are making it stand out from; to give the impression as you re-create a context, that one thing follows from another, but also to permit the spectator to experience "the now" on many levels (scales). Few photographs can do this by themselves, so that you have to create the context for it, through juxtaposition of a narrated text and other photos about the time.

> As you re-create the memory, "there is never a single approach to something remembered. The remembered is not like a terminus at the end of a line. Numerous approaches or stimuli converge upon it and lead to it.....A radial system has to be constructed around the photograph so that it may be seen in terms which are simultaneously personal, political, economic, dramatic, everyday and historic. (Berger, 1980:67).

This reminds very much of the way that Antonioni has manipulated his moving images of a photographer viewing a past event as expressed in his film *Blow-Up* (Praetzellis & Praetzellis, 1989; Shanks, 1991 :188-189).

I have started to consider some of the alternative presentations of images, as explored by Berger, in terms of a combination of imagery - juxtaposed radially to jog the memory - and imagery presented in linear fashion to narrate a story. These are images on the one hand about us pretending to be the social actors of prehistory negotiating their way through space and place, and on the other hand about us reliving our experiences in the drama of the archaeological enterprise.

Slide: Opovo: the Well: juxtaposition

This is visual imagery to help construct a prehistory which is essentially about people - men, women and children - in the arena of place (architecture) rather than architecture which happens to contain people. It is visual imagery that helps to construct a prehistory that is full of ambiguity and must therefore embrace comfortably a plurality of interpretations.

An essential assumption here is that houses, events and places have multiple meanings and these meanings can be considered at multiple scales of social practice (Moore, 1988; Rodman, 1992 :643). Moreover, a place will be perceived differently through the eyes of the different prehistoric actors, whose differences are marked by age, gender, power, and life-history. But the challenge is how to visualize and construct images of people in constructing a surreal prehistory which is essentially about people. This is the challenge to which I eluded in discussing the *500 Nations*. I think that one of the answers may be to go with their attitude of not using "real" actors, but to present people in a very "real" and linear fashion through texts and narratives (spoken) and to present the images, including the other actors who are participating in the memory, as surreal combined with "real" empirical archaeological data:

A Neolithic House-burning: a scenario (Patty Jo and Martin: I don't know if I'll deal with this fully at the meetings, but have fun reading through it)
Sources: Divostin: a big Neolithic village in the fertile wooded hills south of the Danube river
Opovo: a small Neolithic hamlet in the marshlands north of the Danube river
Houses: wattle and daub, always burned

1) Start with the archaeological remains of a burned house. End of the process. Ashes. Smoke. Steam.
Big ritual. Women do it. Heavy difficult long job.
View through one woman's eyes: sad; sees only the ashes, gray, white
View through another woman's eyes: happy; see burned rubble, orange
View through child's eyes: hot, steaming, like a dragon
Top up garbage pits with burned rubble
Fill in a well with burned rubble
Leave rest to cool.

2) Path to another house (C Chang's) quite close to burned one.
Inside: the different rooms. Different views of individuals. Some of the actors are the same as in (1)
a) Room full of women and children.
Woman's view dominated by oven and herbs. But it's not dark. Lots of clay
Child's view: smoke, lots of legs
Men's view looking into this room: dark, smells, cooking, mysterious
b) Another room: elaborate display items; nobody's "doing" anything except talking and drinking.
Men's view: light and friendly; colored;
Women's view: constant movement in and out; need to prepare drinks like a ravenous beast.

3) Path to the outside of the house: outer yard, kitchen, things, not tidy.
Path winds through village via different houses. Painted in different patterns. Gardens next to them. Animals. Burned abandoned houses, used sometimes as rubbish tips.

4) Path to the edge of the village: garbage pits; pottery firing areas.
How to tell the edge? The Chimera curtain

5) Path beyond the houses, into marshy area interspersed with drier slightly higher areas. Lots of stagnant water, mosquitoes. Wild deer in woods alongside water. Higher areas have gardens and small fields: variety of crops, weeds. Looks overgrown to our eyes. Fenced off.
Starts to rain. A shelter in one of the gardens. Look back at the village through the eyes of various shelterers
a) Man's view: sharp edge to the village; own house is the best-looking. Competitive with other households. Feels in control, household head, several wives and children; garden is product of own labor . It actually belongs to and is worked by a wife. He is out hunting for deer for a feast.
b)Woman's view: looks at same house - sees into inside, feels warmth and familiar. No sharp divide between village and garden area. Sees friends in pottery firing area. Collective labor projects: washing, drawing water, chatting. Aware of sounds of mosquitoes, frogs, birds. Tries to listen to conversations.

Something of this kind is also expressed in Zambella's philosophy behind her stage production of an historical drama:

> "My job is to tell a story in the clearest way possible. But "clear" and "literal" are not same animal. Opera is a stylized art and we in America are caught up in literalism. When we try to make opera realistic, try to make it function like a TV soap opera we fail it. A literal visual image may not tell the whole emotional truth about a piece. Ultimately, it's the psychological landscape that has to be realistic, not the pictorial one....
>
> The curtain rises on an apparently literal vista of misty Scottish hills (actually over-sized faux marble). In each succeeding scene, the slabs are re-configured and the picture grows slowly, almost imperceptibly, more primeval, more lurid, more ambiguous, less.....realistic. We're unfolding the story from Lucia's perspective". Francesca Zambella on her production of *Lucia di Lammermoor*, at the Met. *Opera News, 1992.*

Creating a prehistoric place.

The end product of the so-called Chimera project (or more reasonably Opovo project) is an interactive CD-ROM and video and even a printed text that is both a research tool for myself and other professionals and at the same time serves educational/entertainment purposes for the public for use and (yes, really) for sale in museums, in schools, in libraries. I am very interested to foster a change in children's and other public's standpoint on the archaeologist as authority. I think that interpretive archaeology can and should "go public". And I genuinely believe that the public can and should participate - with the help of embedded information

and relational databases and a powerful set of images - in the process of interpreting archaeological data and constructing prehistories.

You might ask the question, shouldn't all of this be left to the "professionals", especially big-budget movie- and TV-film-makers? Potentially, an archaeologist can be trained in this medium, just as he or she can be trained in the use of GIS and other computer technology. The cost of producing the images and writing CD-ROMs or making videos with them can be very large, but can also be within the means of an archaeological unit's budget, depending on the ambition of the producer. To produce an illusion of reality in which every detail is correct, that is, to produce a Virtually Real *Israel in Egypt* could be very expensive of money and labor, even for a low-budget enterprise such as *500 Nations*. On the other hand, more modest yet creative illusions of reality (Francesca Zambella's few faux marble rocks), as I have described in our project, are within the grasp of small archaeological units with access to modest technology.

There are even attempts at a multiscalar and multiple view of history, as with Antonioni's film: *Blow-Up* (Praetzellis & Praetzellis, 1989). I would answer that CD-ROM in fact represents a democratization of the production of illusions of reality, in which the construction and circulation of the visualization of past realities is taken out of the hands of commercial "professional" visualizers and their corporate patrons, and put into the charge of archaeologists - the producers of the original source materials for those visualizations, and ultimately into the hands of a critically thinking public (if such a thing will ever exist).

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