



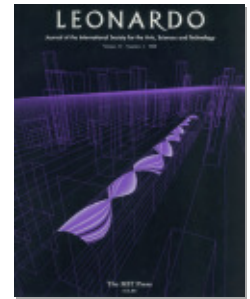
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Beyond Tradition and Modernity: Digital Shadow Theater

Ugur Gdkbay, Fatih Erol, Nezhir Erdogan

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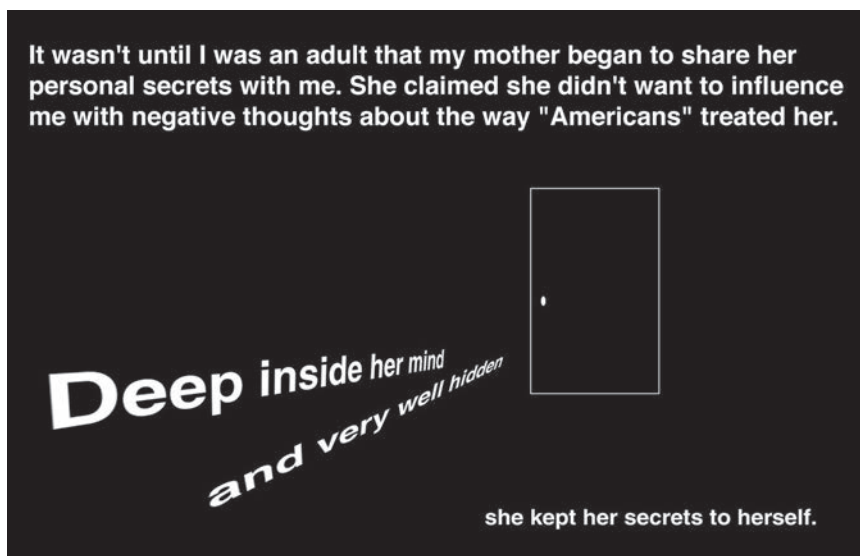


Fig. 1. Jacalyn Lopez Garcia, *Glass Houses* screen image, <secrets.html>, 1997. Using Adobe Photoshop I created this image as a means of examining the relationship between my mother's experience as a Mexican immigrant and the role this played in shaping my identity.

messages (on an average of 2–3 a month) than I do public comments.

Thank you for sharing. As a "melting pot caucasian American" I envy your sense of heritage and desire to share it with your children, I wish I had such a treasure to share with mine. I don't know what is right or wrong, but sometimes, I think as "Americans," the end to discrimination will only occur when we are all mixed into beautiful shades of tan.

—*Glass Houses* [6]

New houseguests are always welcome, as are return visitors. *Glass Houses* can be accessed via the California Museum of Photography at <<http://www.cmp.ucr.edu/students/glass-houses>> and at the Long Beach Museum of the Arts.

References and Notes

1. *Glass Houses* (1997), web site created at the University of California, Riverside. Here I quote an excerpt that appears on the <jacalyn.html> screen, which can be accessed from the family room.
2. I use the term "modern" before "Chicana" to focus on the ideologies of the changing Chicana feminism of the 1990s.
3. This quote is from an excerpt that appears on the <fears.html> screen, which can be accessed from the upstairs bedroom.
4. This quote is from an excerpt that appears on the <identity.html> screen, which can be accessed from the dressing room.
5. This quote is from an excerpt that appears on the <Oppty.html> screen, which can be accessed from the front entrance.
6. This quote is taken from a personal E-mail message I received from a houseguest on 12 March 2000.

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BEYOND TRADITION AND MODERNITY: DIGITAL SHADOW THEATER

Ugur Gdkbay, Department of Computer Engineering, Bilkent University, 06533 Bilkent Ankara, Turkey. E-mail: <gudukbay@cs.bilkent.edu.tr>.

Fatih Erol, Department of Computer Engineering, Bilkent University, 06533 Bilkent Ankara, Turkey. E-mail: <ferol@cs.bilkent.edu.tr>.

Nezih Erdogan, Department of Graphics Design, Bilkent University, 06533

Bilkent Ankara, Turkey. E-mail: <nezih@bilkent.edu.tr>.

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The first performances of Karagz (Karagheus), the traditional Turkish Shadow Theater, date back to the 16th century [1,2]. It was one of the most popular forms of entertainment until the late 1950s. Legend has it that Karagz and Hacivat were two masons whose unending conversations were so entertaining that they slowed down the construction of a mosque, to such an extent that the Sultan decreed their execution. It was a Sufi leader who invented the shadowplay, Karagz, to console the Sultan who deeply regretted what he had done. Thus, the story also shows an example of how art functions as a consolation for loss.

The mode of representation in Karagz is in contrast with traditional narrative forms of the West. The western narrative presents itself as real and hence is illusory. Karagz, however, is non-illusory and self-reflexive in the sense that it quite often makes references to its fictitious nature, stressing the fact that what the spectators are viewing is not real but imaginary.

We designed a software program that would digitally animate Karagz characters. One of our aims was to show how traditional forms can be adapted to contemporary media; also we wanted to demonstrate how Karagz can perhaps force the new media to develop new capabilities of artistic expression.

The software, Karagz, uses hierarchical modeling [3] to animate two-dimensional characters containing body parts and joints between these parts. Once the parts are defined, they are aggregated into more complex objects. The different characters of Karagz have different body parts and joints, and therefore have different hierarchical structures. While drawing the characters during animation, the system applies the required transformations using the model parameters. For example, when a transformation is applied to the hip, the two legs connected to it are also affected; these may have other transformations applied to them as well.

Texture mapping [4] is the technique used for rendering the characters since different body parts are modeled as simple two-dimensional polygon meshes and have a predefined texture

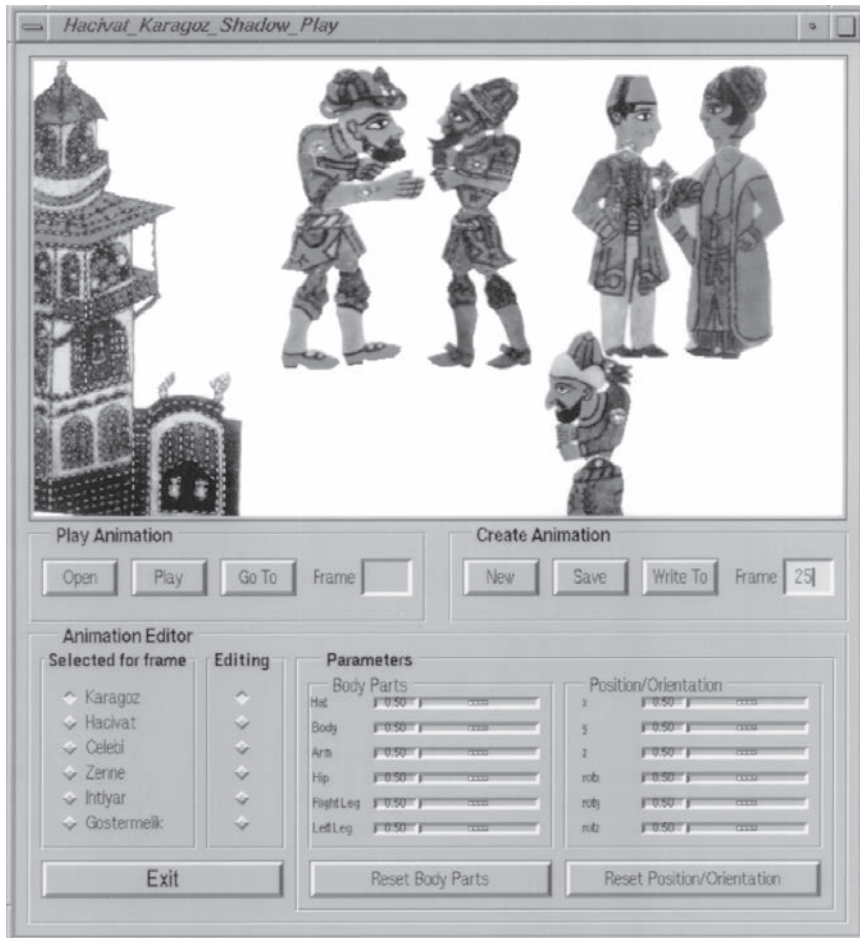
that can be mapped to these polygons as the model animates. To animate the models, the system uses keyframing based on the model parameters.

The animation system functions as an authoring tool to create keyframe animations involving these characters. This is done by editing the character parameters such as position and orientation for different keyframes. The animations can then be played back by reading the animation parameters from disk for each keyframe and interpolating between the keyframes (see Fig. 2).

Thus we attempt to revive the long-neglected tradition of Karagöz in a modern framework. Its artistic features and means of expression are not yet exhausted but are open to further explorations. We believe that our work is exemplary in that it is an instance of media technologies turning to old forms in their search for new possibilities in art production.

Sample animations of the shadow play characters can be found at <http://www.cs.bilkent.edu.tr/~gudukbay/hacivat_karagöz.html>.

Fig. 2. Ugur Gudukbay et al., the animation system user interface. The parameters are adjusted by moving the sliders in the animation editor. The effect of modifying the parameters of a character is displayed.



Acknowledgment

The characters used in the animations are scanned from the Hayali Küçükali Shadow Play Collection of the Turkish National Library and from the book *Dünlü Karagöz*, by Ugur Göktaş (Akademi Kitabevi, 1992) (in Turkish).

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TORN TOUCH: INTERACTIVE INSTALLATION

Joan Truckenbrod, Dept. Art and Technology, The School of the Art Institute of Chicago, 112 South Michigan Ave., Chicago IL 60603, U.S.A. E-mail: <truckenbrod@niuhep.physics.niu.edu>.

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As the technology of cyberspace races towards the future, humanity is beginning to raise a cry for the "hand" in this virtual ecology. When we link to cyberspace, we wish for a depth and physicality of experience that cyberspace is not able to offer.

The "reach out and touch" of telephone mythology has become the banner of the World Wide Web. E-mail and the Internet provide a long distance touch with an immediacy, simultaneity and multiplicity of connection. But the behavior and feel of this linking is mediated through a flat screen. The surface of interaction is a projected world. In this monodimensionality the visual dominates over the other perceptual senses. Other sensory experiences like the electricity of touch, the memories embedded in smell and physical sensations of tension are banished.

McLuhan viewed the printing press as an invention that segmented sensory experiences, preventing synesthetic feeling in which there is a synthesis of hearing, seeing, tasting and touching. The Internet is an extension of the printing press, with the exception that the Internet is rhizomatic instead of linear. When an individual perceptual sense becomes embedded or internalized in a technology, it becomes separated from the other senses. This portion of one's self closes, as if it were locked in steel. Prior to such separation, there is complete interplay among the senses. Virtual experience "overthrows the sensorial and organic architecture of the human body by disembodiment and reformatting its sensorium in powerful, computer generated, digitized spaces" [1]. Cyberspace disengages from the physical, causing sensory experience to be reduced to a monomedium of digital coding.

In the interactive installation *Torn Touch*, exhibited in the Illinois Art Gallery in Chicago during ISEA 1997, the sense of touch connects the physical and the virtual realms of experience. The viewer is engaged with a sense of entanglement by the visceral character of cloth caught on a rusty barbed wire fence. From ancient times, the weaving of cloth has had important social and economic dimensions. I feel that the craft of spinning fiber and weaving cloth is a metaphor for the construction of social, political, and commercial Internet weavings; it continues to communicate social standing and political power. An integral component in rituals, cloth is embedded with spirituality.