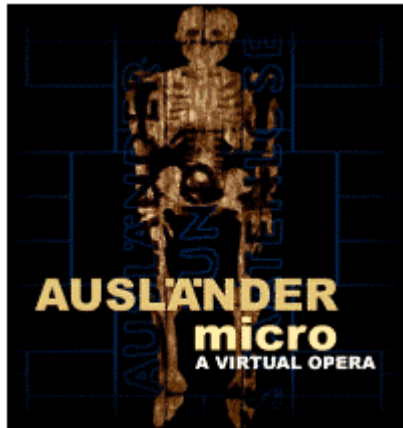


Towards Ausländer Micro



Ausländer Micro was produced between February and May 1998. It was funded in part by an Australian Film Commission (AFC) *Stuff-Art*¹ grant (see Appendix 2, *Ausländer Micro Proposal*). The point of *Stuff-Art* was to encourage artists to create high quality, low bandwidth, small file size web sites. This seemed a perfect opportunity to realise *Ausländer*, tying together all the influences and ideas that had emerged and taken seed through the course of this Masters Research Project.

Ausländer Micro is a web based interface through four acts of this *virtual opera* (see *Why an opera?*) can be explored. Various forms of navigation are provided where the user encounters combinations of text, graphics and sound.

The opera follows the afterlife of an Eastern European refugee. A foreigner in every country, he passes away in a camp after countless years of travel and ruthless persecution. However, in death freedom is found to be as allusive as it was in life.

Ausländer Micro 1.1 was launched by the AFC in Sydney, June 1998. It was launched in Melbourne at the AFC conference, *Being Connected*², July 1998. *Ausländer 1.2* was first previewed at the presentation of the *John Bird Award for Excellence in an Online Production*, Cinemedia, August 1999³.

Ausländer Micro was conceived and created by Andrew Garton, John Power, Bruce Morrison and Justina Curtis at Toy Satellite, Melbourne. It was produced in association with the Australian Film Commission and the Centre for Animation and Interactive Media (Department of Visual Communication, RMIT University).

Collaborative production



Untitled, Elena Garton 1960(?).

Ausländer Micro was the result of a collaborative effort.

Musician/writer, visual artist, programmer, web technologist: four skilled people working together to bring to life the ideas that had been evolving since 1995. I have always enjoyed collaborations, particularly those that bring people of different disciplines together.

I had a great deal of respect for the visual aesthetic of John Power. What attracted me most to him were his origins as a painter. Most of my family are painters. Oma was a painter. I knew the smell of linseed oil all too well. John and I were also interested in the possibilities of collaborative sound and image, particularly in relation to performance. He understood music, he listened and he was no doubt drawn to the resource material I had been collecting. I learnt a lot from John. I am still learning from him... we have gone on to collaborate on live, interactive music and image, which in itself is a journey worthy of documentation.

I met Bruce Morrison at Pegasus Networks around 1993. Most of our work in those days had been done online. He in Brisbane and I in Melbourne. I worked like this for years, with many Pegasus staff. With Bruce I developed a strong rapport. I think it was his ability to contribute creatively to not only technical concerns, but also visual, sound and text. He is one of the few people I know who can work anywhere so long as there is a

¹ [online] <http://www.abc.net.au/arts/stuff-art/stuff-art99/stuff98> [Accessed July 2000].

² [online] <http://www.screenarts.net.au/beingconnected/> [Accessed July 2000].

³ [online] <http://minyos.its.rmit.edu.au/~rpyjp/JBaward99.html> [Accessed July 2000].

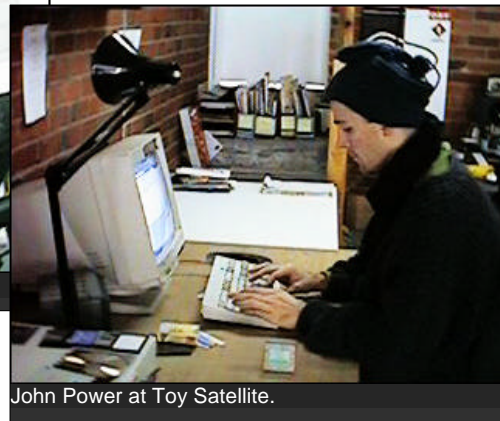
keyboard and screen attached. No comfort requirements for this man. I owe much of the animation design to Bruce, most of which he storyboarded with John.

Justina Curtis has worked with me on just about every project since we met in 1994. She is one of the most patient and hard working people I know. She has an extensive knowledge of the web, its hidden secrets and beauties. She is also one of the fastest web coders I have met, having a strong and sound knowledge of HTML standards, browser and colour issues. Justina is also a musician. She listens. Justina was invaluable during the production of *Ausländer Micro*. She maintained not only a strong coding discipline, when the going got rough she managed to stay focused and keep the team in check.

Collaborations are not always perfect. One has to work at them, and work consistently at improving and maintaining relationships within the team. They easily fall apart when members of the team frequently fail to meet their commitments, or if the production manager fails to recognise these problems early. If the production team is unable to sustain momentum, the project does suffer. *Ausländer Micro* is not without its faults, but it does have substantial merit. *Ausländer Micro* would not have been possible without the commitment of its production team who, under often unreasonable conditions, pulled through.



LtoR Power, Garton, Morrison at Toy Satellite.



John Power at Toy Satellite.

Given the experimental nature of the project, it was necessary for the production team to work very closely together. Problems need to be solved quickly and often collectively. We could not work entirely interdependent from each other, although there were attempts to do so. That two members of our team often chose to work outside of the Toy Satellite studio meant that at critical periods it became increasingly difficult to maintain momentum, not the least our deadlines.

A great deal of my time was spent getting people to talk and meet with each other. At times it felt as though we were working in isolation from each other. That is not to say that it was fragmented. There were exceptional moments during pre-production. There were however, lessons to be learnt.

Collaborations require a certain amount of give and take from all participants. In the case of arts projects, the take can often outweigh the give. Some people choose to work with completely different notions of time than others. Some work best under pressure, some work at a more leisurely pace. Neither necessarily produces the desired result, nor it is an ideal way of working within a collective. Production teams must work collectively, sharing responsibility, giving more than taking from the project.

I do not enjoy hassling, haggling, negotiation or mediating, but this is the director's role. Collaborations are theoretically sound, but in practice I have found that despite a collective process, in most situations someone needs to provide strong leadership and vision to ensure the project meets everyone's expectations.

In the case of *Ausländer Micro*, I wanted the process to be the result of a shared vision. Often it was not. Sometimes it was struggle just to get things done and done on time. I could not rely on everyone to meet his or her obligations. Fortunately, to everyone's credit, we



John and bagle at AIM/RMIT.



Justina Curtis and Supercat at Toy Satellite.

arrived at a point where a common vision was achieved. I'm still not sure how this happened, but I am grateful to everyone for making it so.

Remarkably, the problems we had with *Stuff-Art* brought us together. *Ausländer Micro* started off as a collaborative endeavour and it finished that way.

We still love each other, and have gone on to work together on other projects.

Perhaps we all had to become estranged from each other to get some sense of the isolation portrayed in the story, to be cut off, to be on the outer... Freedom is indeed elusive – one knows freedom only in moments – we keep walking, never to look back, forever ausländer, forever staatenlose...

Visual design

The visual design borrowed strongly from conventions surrounding popular theatre, opera and performance. In her essay *Computers as Theatre*, theorist Brenda Laurel has compared the dynamics discernible between a theatre performance and its audience with the interaction that evolves between a computer user, the computer and the computer's software. A mutual symbiosis takes place between user and machine.

To this extent, stage performance offers a useful metaphor for human-computer interaction. A genuinely *world wide* web site should be easy to understand and use, like a performance from the days when opera was still a widely popular form, and not yet marginalised as *high art*.

The design concept of the site could be described as a process *towards visual moments* - a flow of images that are based on that which we often over look. Images that form part of our lives, our histories and trajectories that have become blurred in our day to day perception.

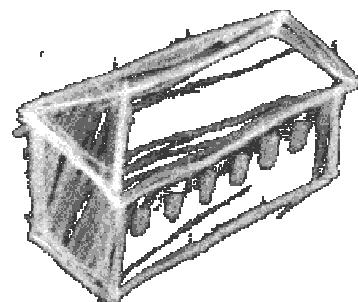
For example, the origins of much of Europe's architectural heritage has become blurred and/or forgotten. Despite its prominence in the urban landscape, they are now merely representations, or icons of the past that play more a role in the continents tourist industry than its cultural heritage.

A clear example of this scenario is the plight of the magnificent statues of Prague. They have become invisible, flat and dormant, forgotten in the flat terrain of commerce.

Towards visual moments may not necessarily be taken as literally as the example provided, but more to keep in mind the possibility of a *re-awakening of sight and memory of place*. In that we not only see that which is ever present, but also discover the new.

Source materials for graphics were essentially comprised of the following:

- Hand-written manuscripts from Elena Garton
- Numerous B/W stills from Russia, Austria



- Stone walls and pathways
- Doorways
- Statues
- Maps

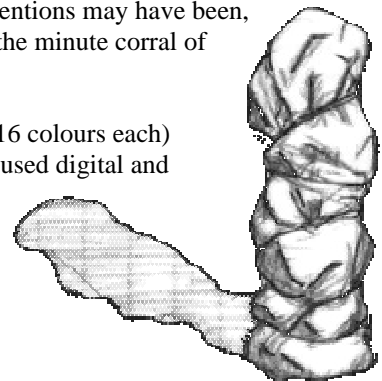
John Power describes his contribution to the project:

"The 1.4 MB size restriction set in the brief for *Ausländer Micro* provided a useful base for developing a sense of the aesthetic required. Taking in consideration for sound and programming requirements, we agreed from the outset to aim to keep the entire graphical content for the finished piece under 800 kilobytes. While accepting that the amount of graphical content incorporated in the piece would be in direct relation to the level of compression I would need to exert on the final output, I was still keen to draw on a rather dense, photographic look in many areas."

"The development for the visual component of *Ausländer Micro* was influenced to the greatest extent by the collection of photographs and identification documents from war time Austria belonging to Andrew and his family, and by photos taken from Andrew's travels through Austria and Prague. Much of the imagery illuminates visual sequences in the narrative while attempting to navigate a space around the volumes carved out by the sonic presence of this screen entity we call a *virtual opera*."

"Ghosts drift through deserted refugee camps, cross dreadful maps of human conflict, sink into the grainy wind of electronic media and communication, and dissipate in an ocean of swimming souls. I hoped to maintain the density of the photographic source material as well as projecting the figures into the ethereal cavern I imagine in the words *on line*. This concern was addressed with the conventionally wide screen and the reduced, monochromatic palette. Expansive as our intentions may have been, the prospect of cramming the atmospheric space the Opera describes into the minute corral of eight hundred thousand zeros or ones."

"There are 378 images, all images are 4 bit (have a possible maximum of 16 colours each) except some images used in the shadow effects and the splash screen. We used digital and scanned photos, documents, pencil and ink drawings. I recommend viewing the piece with your monitor set to 800 by 600 pixels, and colour depth higher than 8 bit (256 colours)."



Interactive design

Interactives, whether they be CD-ROM or web based, require users who have both the time and desire to explore them. Most successful interactives draw on adrenalin and the competitive nature of their users. *Ausländer Micro* would do neither. Although there are good arguments for the creating of dense explorative environments much of the content, as evidenced with Black Harlequin, remains unseen, unexplored, unknown. Black Harlequin, though a very popular site in its time, rarely drew users deeper than its first level pages.

So, how interactive would *Ausländer* be? Would it need to be interactive? If it were, would it find and sustain an audience? At one point, it was considered that *Ausländer* be designed much like a run-time movie. That is, it would play from beginning to end with little to no user interaction. However, the interface would change at random, Koan or scripted algorithms would create a sense of on-going change. However, neither of these ideas were taken up in *Ausländer Micro*. Although the expertise was there to at least produce a generative interface, we had no additional funding to take this step.

The ideas we did implement for the interactive design were largely influenced by discussions I had had with John Power prior to leaving for the MA Research Tour in 1997. John introduced me to the work of Italian artist, Francesco Piero. I was particularly taken by the painting, *Flagellation*⁴. "He conceived of the human figure as a volume in space, and the outlines of his subjects have the grace, abstraction, and precision of geometric drawings."⁵

In the centre of the painting the figure of Christ is standing on a mosaic of tiles. Here is a carefully articulated design, visually hidden, though completely, mathematically accurate.

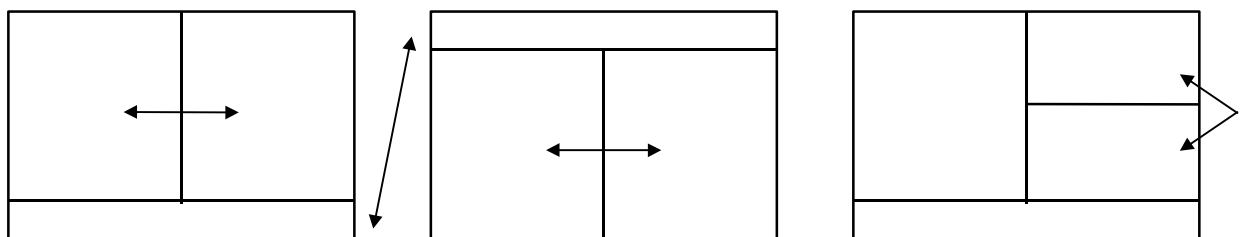
I recalled the impression made on me in the final chapters of Russel Hobans, *Pilgermann*, where a magnificent mosaic is built. To view it, one had to stand from an elevated vantage point. This idea of perspective hiding information. Nothing is ever, as it seems. The richness of meaning need not be shared with all and sundry. The process towards its creation is what seemed just as important to me as the end result.

The language of mosaics also intrigued me; the complex arrangements of patterns that can only be read by those initiated into their meaning. I refer particularly to those of religions origins, the mosaics that adorn the temples of the world's great religions.

I would not wish to presume that *Ausländer Micro* had such lofty goals. Components of its interactive design were clearly informed by these concepts, but I feel we have barely scratched the surface of possibilities for such interfaces.

During the MA Tour, the mosaic ideas continue to emerge. My journals reflect their appearance in doodles and comments. Eventually, John became more involved in the project, taking these embryonic ideas and devising animated and interactive sequences with Bruce Morrison, Technical, that continue to reveal intriguing relationships between the visual components of the project.

The mosaics are largely conceptual within the context of the *Ausländer Micro* interface. More visible is the layout, each significant component of the site broken into individual frames. The original frameset was designed to change as one moved through the site.



⁴ Flagellation, approx. 1453, Galleria Nazionale at Urbin

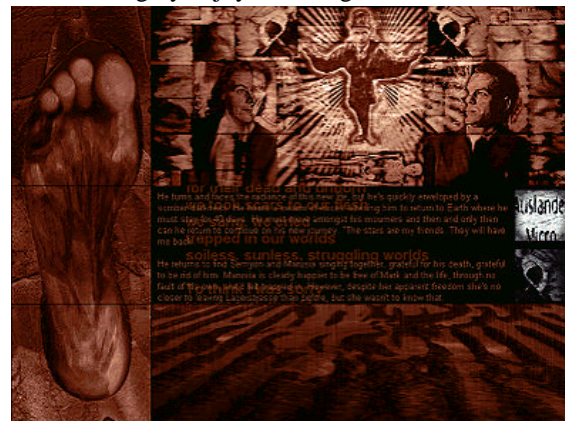
⁵ Microsoft® Encarta. Copyright ©1995 Microsoft Corporation.

The menu on the bottom would appear in the following scene at the tope. The two interior panels would reverse sides, sometimes splitting into additional rows. The final design took on a more static form, however it was informed by these original ideas.

The far-left panel contained the main menu. This was broken into three sections; each comprised of one part of the sole of a foot. The following scene/act would not play its associated soundscape

without the foot in its complete state. It was possible, however, to create combinations of each of the four acts, but only visually. Sounds were linked to the top of the foot.

The foot represents the journey that takes place in the story. It was derived from a number of interesting sources. The boot that dominates Act One is a scan of one of my boots. A pair of Blundstones to be precise. These are a popular and hardy shoe worn by many people in Australia. Act Two is a composite image, largely derived from a scan of my foot and the remnants of a shoe found in the garden at the back of Toy Satellite. Act Three is my foot again, but merged with an x-ray and heavily treated. The final Act, is John Power's niece, who thoroughly enjoyed having her foot scanned.



Technical Design

One of our aims was to produce a truly web based interactive devoid of plugins, but hot on code. This meant using the most recent versions of HTML and Javascript alongside the current browsers. Bruce Morrison describes his contribution to the project:

"Early on in the project it was decided that *Ausländer Micro* would run on both major Web browsers, Microsoft's Internet Explorer and Netscape's Communicator. We were eager to take advantage of the relatively new Dynamic HTML (DHTML) technologies found in both these products. This posed many problems as the Document Object Model (DOM) employed by these products differ considerably.

"Another decision was to produce *Ausländer Micro* as a truly HTML project. To do so, it was decided that the site should require no additional software (ie. browser plugins and other browser add-ons) to function. This meant utilising the primitive sound capabilities of both Explorer and Communicator, despite differences in their implementation of sound."

"[We] wished to demonstrate the extent to which straight HTML code and its integration with Javascript can produce dynamic results without the use of additional software. Making full use of version 4 browsers (Communicator and Explorer) [we] integrated Dynamic HTML, Cascading Style Sheets and cross-browser compatible Javascript."

"Frames, Cookies, Javascript, Cascading Style Sheets and Dynamic HTML were used to realise *Ausländer Micro*. The use of these features in combination was a journey in itself and has lead to a much greater appreciation of open standards and the work of the World Wide Web Consortium⁶."

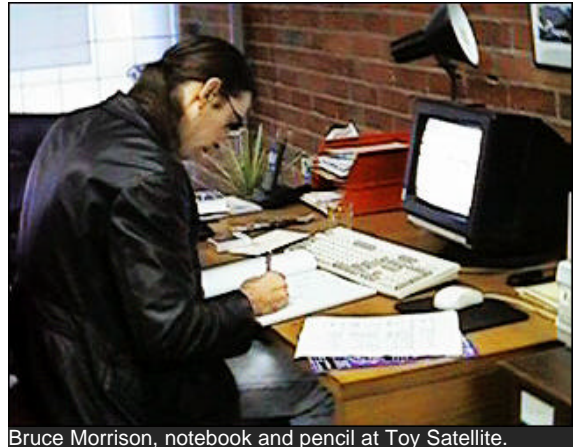
Version one of *Ausländer Micro*, as produced for the Stuff-Art, succeeded in meeting these objectives. The most recent version requires the use of the Flash plugin for the delivery of more manageable sound. This is described in more detail in the following section, *Sound design*.

One of the most frustrating technical problems we encountered was ensuring it would run successfully on the Macintosh platform. Two out of every four Macs we tested *Ausländer Micro* on indicated poor Javascript implementation in Netscape 4.5.

We also tested it on three different web servers. Two servers running on Sun Solaris (Netscape server) and one NT server running Apache. To test download times we had *Ausländer Micro* running on servers in Russia, Austria and the Czech Republic and it has performed consistently on every occasion. The only lag in download time was caused by the need to pre-load the sound files. This meant that as each scene appeared, the user did not have to wait for the corresponding sounds to download.

The entire project, up until recently, had been mirrored on web servers in London, Prague, Linz, Moscow and Melbourne. An RMIT mirror was available for a short duration, but was removed due to storage limitations. Another RMIT web server was offered at I3, but this too was removed for similar reasons.

At the time of writing, mirrors of the site are available via Econnect in Prague, Ars Electronica⁷ in Linz and Toy Satellite in Melbourne. The London and Moscow mirrors are no longer available due to changes in their web server software that does not support the tools being used to maintain the project archive.



Bruce Morrison, notebook and pencil at Toy Satellite.

⁶ [online] <http://www.w3c.org> [Accessed July 2000].ZZ

⁷ [online] <http://www.aec.at> [Accessed July 2000].

Curiously, as I was completing this section I received email from Liz, Web Administrator at GreenNet⁸ in London, "I checked out PHP for NT and it was pretty simple to install, so I have done it (first on a non-live server to test) and now on the main server. You should be able to use php pages in your site now. I only have tried very basic scripts as I am no php expert! So please experiment and let me know if there any extensions/modules that are not installed that you might need." *Ausländer* is back online in London!

Sound design

I have written a lot about the work I had been doing on aspects of the score and design for *Ausländer*. Most notably the following papers: *Generative Sound for Interactive Media* (1996), *Lost Time Accidents* (1996), *Multimedia Imaging and Sound* (1996), *The Politics of Dissonance* (1997) and *Breaking the Loop* (1997). I have also lectured on the ideas presented in these papers: *Lost in Sound* (1998), *Sound Breeding* (1999), *Low-cost Interactive Sound Design for Multimedia* (2000). Presentation files for these lectures are available on the MA web site archive:

[online] <http://www.toysatellite.org/agarton/MA/> [Accessed July 2000]

Sound design for *Ausländer Micro* was largely influenced by the web technologies available to us in 1998. At the time of production, the *Koan Audio* plugin was not available in a cross-platform format. A PC and a Creative Labs Awe 32 soundcard were required to ensure consistent quality of sound and delivery. As such, I was limited to the number of sounds we could use, their quality, length and file size.

Ausländer Micro 1.1 consisted of only four sounds, one for each scene. They were standard, uncompressed audio files. The only alternative option available to us was the Beatnik Audio Player⁹, but it did not support Active-X at the time. Active-X is crucial to the implementation of Beatnik Audio in Explorer¹⁰. This meant audio would not run on anything other than Netscape. Added to this, we needed to have some control over each loop to ensure that they would play when their corresponding scene was fully loaded.

The following provides a brief description of each of the sounds used in *Ausländer Micro 1.1*, Acts One to Four:

Act One: Drone. The opening sound, a somber drone, was required to introduce users to site as well as carry the theme of the 1st Act. It was created by recording Chinese bell as it was scraped with a thin metal rod. This produced a variety of harmonics, which were only audible by close miking the cymbal and enhancing the sound digitally. We had in fact recorded several cymbals using various techniques.

Once the harmonics were isolated from other features of the recorded cymbal it was pitch-shifted down by a 5th, processed with slight reverb and resampled from 44hz - 16bit to 11hz - 8 bit. This ensured that we had a full, haunting sound at a reasonably acceptable file size.

Act Two: Passage. A second somber, though more meditative drone was required for Act Two. The final sound is comprised of digeridoo, vocal chants and digitally manipulated traffic noise. Each sound was recorded separately, processed digitally, mixed together, cropped and re-sampled.

Act Three: Techno Babble. A harsh tangle of electronic sounds was sought to provide the underscore for Act Two. We opted for a synthesised sound that was created using freeware software.

Act Four: Loss. Loss and despair were the overriding themes required of the sound for the final Act. We used a recording I had made of a Toucan in Brazil. Significantly pitch-shifted and treated with reverb the end result is more than haunting. It also seemed fitting to use the Toucan, a diminishing species, further echoing the grief encountered in Act Four.

⁸ [online] <http://www.gn.apc.org> [Accessed July 2000].

⁹ [online] <http://www.beatnik.com> [Accessed July 2000].

¹⁰ At the time of writing, Beatnik have addressed this problem, however Active-X, a Microsoft format, has yet to be fully implemented in the Mac version of Explorer.

With the release of Flash 4 in 1999, it was suddenly possible to stream audio files compressed in the MP3 format. Not only could one stream these files, we could use several for each Act and they would take up less file size collectively than the audio files used in *Ausländer Micro 1.1*.

Ausländer Micro 1.2 provided the user with a simple interactive audio mix for each scene. It performs on both PCs and Macs via the more common Web browsers. It takes less time to load and gives *Ausländer Micro* the atmosphere it needed to compliment its rich visual treatment. Flash programming was skillfully applied by Andrew Sargeant, with whom I worked with on *Tat Fat Size Temple 1*.

The sounds for 1.2 were sourced from the vast library of material I had been collecting since the project commenced. These include extracts from the libretto as performed by Fierce Throat, atmospheres from Prague, Graz and Vienna, and samples from *Stratosfear*, the only recorded piece from the full score of *Ausländer und Staatenlose*.

Stratosfear is the second soundscape of Act 3, followed directly by the song, *Die Like a Tourist*. I recorded this piece whilst working on *Ausländer Micro*. It is a rich collage of sounds representing what might be heard would it be possible to listen in on every single audio transmission broadcast from Earth to its many satellites and back. The entire piece is comprised of twenty-nine individual sounds. It took almost all of six weeks to produce and is by far, the most important piece of music I had composed at the time. (See App. 5 for extracts from the studio journals.)

Feedback

When *Ausländer Micro* was released a comments page was installed on the project web site. Feedback was mixed as can be seen in the following extracts. Only one comment has been omitted, as it was particularly offensive.

this is the most beautiful thing i ever saw on the web. Especially the poem.
Thomas Rutgers <tombo@home.nl>
Netherlands - Monday, July 10, 2000 at 18:50:06 (MDT)

Nou äuzzländerr
Skinn BomBer <uebermensch@budweiser.com>
Switzerland - Tuesday, March 14, 2000 at 06:46:12 (MST)

This story is a piece of trash. It is bound for failure.
Margaret Smith
- Friday, December 31, 1999 at 01:51:36 (MST)

Irkcilik dunyanin en kotu duyusudur. Lutfen irkcilikten vazgecip tum dunya bir araya gelip insanlara yardim edelim. Racism is the worst feeling to have. Why bother saying 'I don't like you, you're black etc' that is just ignorance. The world should join together to help people whatever their nationality.

Turk <denzmail@yahoo.com>

Turkiye - Monday, September 13, 1999 at 05:09:59 (MDT)

Gothic style, beautiful colours and intricate images a 20th century tragedy. got a bit lost in act 3, where was fritzi? and and enjoyed that robust chorus

cherylynn holmes <cherylynnholmes@apex.net.au>

australia - Saturday, September 04, 1999 at 08:29:57 (MDT)

at last i stumble accross surfborn squares of beauty and intrigue - sonically alone it was a delight to play with and the use of dhtml revelationary in it's scope. many thanks

ma kus <mark@koodos.demon.co.uk>

uk - Monday, August 30, 1999 at 11:43:02 (MDT)

Una nueva forma de hacer arte usando las herramientas que nos acerca la tecnologia de informacion. Seria muy bueno lograr una version traducida a distintos idiomas. Nos anotamos para el español. BRAVO! muy buen trabajo. AVANTI!

Carlos E Alvarez <carlos@wamani.apc.org>

Argentina - Friday, August 27, 1999 at 12:29:44 (MDT)

Tremendous Andrew! Well done! It is a work of art, each act conveys a message and mood brilliantly. Where did you come up with the idea? I've never seen anything like this and can only imagine how long you spent slicing and placing images, and coding the sequences. :-)

Don Anderson <don@no.spam.apc.org>

New Zealand - Thursday, August 26, 1999 at 00:35:18 (MDT)

Ausländer geht heim! Deutschland den Deutschen! Es lebe die deutsche Volksgruppe! Es lebe die BBA!

Franz Fuchs

Deutsch-Österreich - Wednesday, June 09, 1999 at 12:52:28 (MDT)

This was an absolutely excellent piece! A very good utilization of DHTML (and I know what it's like slicing up all those little pixel parts). I love the misty quality you get with that sort of dithered transparent gif method.. makes up well for the lack of true gradient transparency in dhtml. My only complaints were the long loading times, and some audio problems. I would love to see this distributed as a zip archive so I could study it on a more intellectual level without the technical hiccups. thank you!

Ian Campbell <ianc@islandnet.com>

CANADA - Friday, October 23, 1998 at 00:51:59 (MDT)

I was just checking back on the progress of Ausländer and I appreciate the increased possibility of interaction on this site! I also wanted to thank Andrew for all his input his work and our long discussions had on my work and my threads of thoughts :) Hope our ways will cross soon again in one of the real continents. take care Mon

Monika Wunderer <wunderer@krampus.org>

NY&Austria - Sunday, August 30, 1998 at 17:27:19 (MDT)

Andrew Garton commented to me recently that I was the one who had shown him a modem for the first time... something I'd forgotten after hundreds of emails and conference entries over the last nine years... its truly great to see how far the web has grown since the days of text-only interface... and the contribution that Andrew (and all the team at Toy Satellite) has made with this site is a landmark spearheading even more adventurous forays into DHTML and artistic endeavour. Simply THANKS for a really interesting web exploration.

Michael Ney <vrx@vrx.net.au>

- Thursday, August 27, 1998 at 06:27:10 (MDT)