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become available less and less often. I have had to cut back my
connection time.

My primary Web site, with interactive applications, will disappear
altogether in two days. Bell Atlantic is shutting off my ISDN
line. The mirror site, http://www.wolfram.com/~mathart will
remain. It has the front-ends to the interactive works, but the
buttons will return "not found".

I am sorry for any inconvenience this will cause. I hope at some
point that the site will return.

In the meantime, e-mail for me should be directed to <pix@wri.com>

Thank you.

-Stewart Dickson
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<  An Annotated 'Coded Messages: CHAINS' -
   Cultural Ecology from Ghana to the World Wide Web  >

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A note on navigation: Netscape 1.1 or higher is required to enjoy
the complete design. Additionally, you will need helper
applications in order to hear the sound files, and view the
Quicktime movies. We have a help page set up to help you get your
machine properly configured. The links we have set up in the LEA
profile go to the actual site. To return to this article use the
Back button on your browser.

The Doorway stands between the dungeon and the light. A figure
stands poised, ready to cross the boundary. Thus begins your
journey through the web site, Coded Messages: CHAINS. The CHAINS
site is one product of our own journey to Ghana in 1994, a
testimonial to our study and collaboration with traditional
drummers and dancers there.

We didn't go to Ghana just to collect sounds or conduct
anthropological research, though we did do this to some extent.
Our main intention was to interact with the people, to establish
relationships with them, to share an understanding about our
different ways of life. Our desire was to provoke ourselves and
our fellow human beings into new experience and new perspective.
We went to Ghana to exchange creative energies in a common
cultural ecology.

Our work is about moving between contexts and boundaries. We
challenge the separation of disciplines and strive to forge
connections between cultures. This web site joins the spaces

between tradition and technology. As we walk you through the site,
take time to find new connections in what we present. Challenge
our perspective. Find your place in context. We are offering one
of the many possible routes through the CHAINS site. It is not the
only way, nor the right way. Our discussion will present a mix of
the nuts and bolts of designing and constructing this site, and an
explanation about the content.
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Cultural Ecology------------
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The etymology of 'ecology' derives from the Greek oikos, or house,
and logia, a systematic treatment, which in turn comes from logos
-- word, reason, discourse. Ecology is about interrelationship,
about flows of energy and resources among component entities which
interact in a larger whole. In the late 20th century, the ongoing
development of multinational capitalism has achieved absolute
hegemony: all resources and all people on this earth are subjects
of the system. All human experience is mediated by the undeniable
power of that center.

The etymology of 'culture' hails from the Latin, colere, to attend
to. Early uses refer to cultivation, the tending of natural
growth, and to the divine worship of spirits. The word's
association with natural development was gradually replaced with
human development. We use the word cultural to describe a human
response to the environment. How do people adapt to the conditions
of the 20th century? What outlets for expression can we imagine
that lie outside the forces of production? How are our
relationships with each other affected by the pull of the center?

The center wields both obvious and invisible power. We find this
invisibility in everything accepted as normal. By hiding behind
the mask of normalcy, the center never has to explicitly define
itself. What is normal is highlighted. Implicit rules of exclusion
draw borders between the center and the margins. Difference is
treated with contempt and disdain, exoticized and trivialized.
Oppression is practiced and internalized.

A movement among people who identify themselves as marginal names
and reclaims this status. Their resistance brings dignity to a
denied perspective, a patchwork identity composed of tradition,
assimilation, and subjugation. bell hooks writes,

"Our survival depended on an ongoing public awareness of the
separation between margin and center; This sense of wholeness,
impressed upon our consciousness by the structure of our daily
lives, provided us an oppositional world view - a mode of seeing,
unknown to most of our oppressors, that sustained us, aided us in
our struggle to transcend poverty and despair, strengthened our
sense of self and our solidarity."

This perspective inspires us in forming a strategy for respectful
participation in intercultural work, which simultaneously engages
the traditions of others, and seeks to draw out and heal the
schisms inside and between ourselves.

After years of traversing boundaries between cultures and
transgressing boundaries between disciplines, we feel a need to
identify the generating principles of how we work to make culture.
We combine "colere" and "oikos" to form "cultural ecology", a
world view of creative work. For us, art and technology are a
single process. Theory and practice are only interesting in their
conjunction. In all creative acts, the impetus of joy and the

drive to solve problems co-mingle. The realities of postmodern
multinational capitalism confront us daily, like a Sisyphusan
grindstone. We do not wish these factors to deny our growth as
human beings, or our development and self-determination as people.
As artists, activists, technologists, we face these realities
head-on to reclaim our personhood by identifying unity, and
placing elements in interrelationship, thus developing cultural
ecology.

We are disposed towards "logos"- discourse, without embracing "-
logia", - systematic knowledge. Our discourse plays with
systematic knowledge, so as to subvert it as much as to establish
it. Our motivation as cultural ecologizers is to create
interesting perturbances in the normal goings-on which cause
participants to think about and feel our common alienation and
interconnectedness.
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Coded Messages--------------
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Coded Messages is our name for a series of performances and
installations which juxtapose hidden meanings from disparate
semiotic systems in order to illuminate new interpretations and
meanings. These systems are the "vu gbe", or drum language of the
Ewe people in Ghana, wherein texts are encoded in the melodies of
drummers, and the commercials of American advertising, in which
layered messages about social norms are conveyed.

Vu Gbe - Drum Language
Among the Ewe of Southern Ghana, a legendary metaphor, 'Ela kuku
dea be vu la gbagbe', which means 'A dead animal screams louder
than a live one,' is commonly used to explain the human experience
that inspired the origin of the drum - a super voice surrogate was
built out of the skin of a dead animal that could deliver the
message louder and clearer.(C.K. Ladzekpo)

In traditional Ghanaian performance, interactions between
participants, media, and content, are often initiated by the call
of a drum. Speech surrogates are forms of cultural expression in
which non-verbal aural units substitute for speech, just as
written phonemes correspond with spoken ones. Thomas Sebeok and
Donna-Jean Umiker write that a pair of semiotic systems may be
"substitutive systems, such as...drum and whistle surrogates ...
which are dependent on spoken language to such an extent that
persons wishing to use them must share a common base language if
they are to make themselves understood."(1)

Substitutive systems "instigate a particular process of
transmutation, or intersemiotic translation, which is the
'interpretation of verbal signs by means of signs of nonverbal
sign systems'."(2)

This process corresponds to J.H. Kwabena Nketia's "speech mode of
drumming"(3). The listener who understands the base language
identifies key features in the drumming, transmutes them into
their base language signifiers, and comprehends these as speech.
Drum language is a speech surrogate form practiced by the Asante
and Ewe peoples of Ghana. Composers often use drum language to
represent proverbs. In Ghanaian society, proverbs are the form in
which deep philosophy is represented in everyday language for the
on-going transmission of world-view. Over time, the Ghanaians have
developed a rich medium in the form of music, movement and design,
precisely integrated with each other to represent encodings of
proverbial statements. Proverbial symbols can be found in the
traditional arts: in the patterns woven into kente cloth, on the

stools people sit on, in the interlocking rhythms of drummers and in the movements dancers make. The message of each proverb becomes reinforced through its encoding and presence in multiple forms. The forms converge in traditional multimedia when participatory rituals are enacted.

Recontextualizing semiotic encodings became a mainstay of Coded Messages: CHAINS. For our costumes we went to Makola market in Accra to choose cloth with appropriate meaning. The pattern "Mensu bio" was chosen for a number of reasons. First was the image, which reminded us of interlocking links of chain. Second, "Me nsu bio" is translated from Twi to mean "I will weep no more," symbolizing a transformation from despair to hope. Regarding "vu gbe", it is important to realize that not all Ewe people understand this drum language. Few other Ghanaians can understand the base language, Ewe, so they are excluded from comprehending Ewe drum language. Often it is just the drummers who understand what is being played. Sometimes they share internal jokes, playing catchy phrases for each other's amusement. Again the questions: "Who is speaking? Who is being spoken to?" are raised. When we brought the performance to Anyako, which is an Ewe village, Francis played drum language and then spoke the meaning. As you can see from the video clip, the audience reveled in the secret joke he shared with them.

Commercials - Nante
The second stream of semiotic encodings came from advertisements in American magazines. After looking over the ads we began to notice similarities:

Most of the people portrayed were Caucasian. None of the signs of poverty that were omnipresent in Ghana were represented. None of the slogans directly mentioned the product being sold.

In these ads we meet the center. The pictures represent a fabricated world of prosperity, health, and contentment with a code of signs. The realities of the associated degradation are invisible. Everything contrary to this illusion disappears. This absence forms a crucial clue to the Coded Messages. The ads suggest that if you don't look or live like the people in the ads you don't exist. Furthermore, owning the products is a prerequisite for this existence. A group of the performers moved among postures from the advertisements and chanted the matching slogans upon command.
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CHAINS-----------
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Coded Messages: CHAINS was built with drum language passages from two important pieces in the Ewe repertoire; "Gadzo" and "Adzogbo" are pieces which have historical significance. Both have been used to arouse community support and cooperation in times of hardship and threatening circumstances. C.K. Ladzekpo, Professor of Music at U.C. Berkeley steered us to explore the "vu gbe" for Adzogbo.

The interpretation of one passage of Adzogbo became the heart and the namesake of Coded Messages: CHAINS.

(Ewe words)
Dza dza, dza dza, dza dza, dza dza,
Avalokoe le ko na mi.
Dza dza, dza dza, dza dza, dza dza,
Avalokoe le ko na mi.

Me nyi ba na huto,

Me nyi ba na hesino.
Avalokoe le ko na mi,
Me nyi ba na huto,
Me nyi ba na hesino.
Avalokoe le ko na mi,

(English translation)
Our necks, our necks, our necks, our necks,
Chain will strangle without release.
Our hearts, our minds, our heads, our necks,
Chain will strangle without release.

Listen to the drummer,
Listen to your own song.
Chain will strangle without release.
Listen to the singer,
Listen to your own song.
Chain will strangle without release.

"Our necks" is the foundation of CHAINS, the recurrent reference,
and the thread of continuity. It appears in many forms: spoken,
enacted, drummed, and danced; interpreted and reinterpreted. You
can find it stated in different languages on the vu gbe page. On
the whip page, you can find a more literal enactment.

Andruid Kerne created this total translation in consultation with
Francis Kofi, C.K. Ladzekpo, and Gustav Hlomatsi. The passage, in
its traditional context, served to incite the people to respond to
a clear and present danger. Now, we are connected by chains, and
bound, all of us, to the center. "CHAINS" became a linkage and a
symbol, a rallying cry among the performers. Where "Coded
Messages" is an abstraction, "CHAINS", is tangible, connecting the
pain of history with the pain of the continuing, postcolonial
relegation of Ghana to the margins of the global economy.

The Internet is also a medium of connection, playing a role in the
cultural ecology to circulate information among those who are
lucky enough to be connected. The whole peoples who are excluded
are left relatively poorer than those with access. Thus the
Internet functions as new chain of exclusion, binding those with
access into a web of connectivity, and leaving the rest bound in
silence. Owning the technology of information -- telephones,
televisions, computers - is a dream for many people we met in
Ghana. This is the subject of "Tele", where Francis chants "Chains
of cybernet economy", "Power Money Power Money", and "NBC, ABC
BBC, GBC, CNN, IBM", interlocking cross-rhythmically with the
other performers, who chant, "Telephone Television Telephone
Television" in a call and response form.
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CHAINS Representation------------------------
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Throughout the production process, we asked ourselves Trinh T.'s
key questions: "Who is speaking? Who is being spoken to?". They
are fundamental questions which one must ask about any
intercultural exchange. We feel ourselves pulled to the center
even though we try to transcend the boundaries. Our access to this
technology puts us in a position of privilege. Though we like to
think that our colleagues and friends in Ghana appreciate this
rendition, most will probably never get to experience it. We
acknowledge the irony of this project, for, while we believe we
are serving their interests by presenting their culture to an
international audience of thousands, they can never see this
representation themselves. We seek an ethical ecology of
technology, with equal access for all. Master artists from all

cultures deserve to have the tools in their hands and education in the associated knowledge. Until, or unless, we are able to achieve such an exchange, we bring their cultural expressions to a medium which excludes them as subjects and even more so, from access.

What is signified by the code, "World Wide Web"? We include a link to a site, "The Virtual Tourist", which features maps of Internet access throughout the world. When we first found this map on the web in June 1995, the only African country with Internet access was South Africa. The rest of the continent was an unidentified expanse of yellow. This resonated deeply with the lines written by Andruid and chanted by Francis in the piece "Tele":

"Superhighway? We got no trunk lines here. You can't reach me, I got no telephone."

The "World Wide Web" presents as skewed a map of shared culture as the map from 1200A.D., in which a thick circular boundary is drawn around the known Christian world, and the space outside of it is empty. Christ stands above, and monsters patrol the borders. Nine months later, while preparing this article, we return to the Virtual Tourist map and the change is minimal: Cote d' Ivoire, Ghana and Benin are now filled in (with sites we have not been able to connect to), as are a few countries in East Africa. A disproportionate number of countries remain blank.
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CHAINS Techniques---------
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Amidst cultural ecology, we identify the "ecology of technology" as an inquiry into the arts and sciences. Technology blends "logos", with the ancient Greek, "techne", art or craft. The Greeks systematized art and craft; only during the industrial revolution was technology wrought to mean the practical application of science in the process of production. In our work we apply the same principles to creative and technical processes. We unify the processes which are otherwise bifurcated into art and engineering.

Guerilla Links and Random Walks
Authoring for the World Wide Web has opened a new realm of possibilities for creative and subversive expression. Site designers have access to almost all the source material that's published on the Web. In the spirit of "Ready-Mades" we can link to sound files, images or even movies that exist outside our site and bring them into our context.

In Coded Messages: CHAINS we use "guerilla links" to force the context of multinationals to meet ours. Brought into unfamiliar surroundings, their coded messages gain a clarity that is intended to remain invisible. We juxtapose contexts to bring out new meanings. another right next to it jumps to the actual AT&T ad that they are quoting. As we scan the ad copy, we know that the "You" most certainly is not our friends in Ghana. The command "You will" echos the commands shouted out to the performers during the Nante section.

Elsewhere, on the Coded Messages page, find an imagemap collage, and the instructions, "Click around to find the different codes." In the foreground of the collage are pictures of CHAINS images. Clicking on the background will invoke our randomWalks CGI script. This script chooses randomly from a set of corporate links we have assembled. The guerilla links jump to sites such as Lockheed, and Dupont, each promoting their vision of a perfect world. In our collage, the presence of the center is invisible. Our resistance

is highlighted.

Graffiti Wall
Participation is a hallmark of cultural events in Ghana. When a
drumming society performs in a village, everyone is invited, and
everyone is encouraged to join in singing and dancing. The CHAINS
Grafitti Wall brings this sensibility to the site. A script
generates a self-modifying HTML page, to which the participant-
user can add text, image links, and hyper links, through a form.

Annotated Coded Messages: CHAINS Resources
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Cultural Ecology:
hooks, bell. marginality as site of resistance, in Out There:
Marginalization and Contemporary Cultures. Edited by Russell
Ferguson, Martha Gever, Trinh T. Minh-ha, Cornel West. New York:
The New Museum of Contemporary Art. 1990. p. 341.

Coded Messages:
Sebeok, Thomas, and Umiker-Sebeok, Donna-Jean. Speech Surrogates:
Drum and Whistle Systems. The Hague: Mouton. 1976. p. xiii.

Jakobson, Roman. Language in Relation to Other Communication
Systems, (1970: 261), quoted in Sebeok and Umiker-Sebeok, op cit.,
p. xiv.

Nketia, J.H. Kwabena. Drumming in Akan Communities of Ghana. New
York. Thomas Nelson and Sons. 1963. P. 28.
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Acknowledgements-------
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