

A Rapid Planning Tool for Restoring the Mesopotamian Marshlands of Southern Iraq

**Stuart Leiderman, Environmental Response [USA] <leidermn@christa.unh.edu>
Hamid Ahmed, Halton College [UK] <Hamid.Ahmed@haltoncollege.ac.uk>**

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Abstract:

During the summer 2004 session of the Institute of Sustainable Development at the University of the Middle East Project [<http://www.ume.org>] in Toledo, Spain [Figure 1], the authors introduced a rapid, low-tech planning tool for restoring the Mesopotamian Marshlands of Southern Iraq. The session was conducted during the afternoon of July 7. The participants were primarily young leaders from a variety of national government agencies, educational institutions and non-governmental organizations from the Middle East and North Africa. Working in teams of three, the participants prepared nine-step sequences that they believed would accomplish the ecological restoration of the marshlands and the repatriation of thousands of political and environmental refugees who once inhabited the marsh region.

Among the most-frequently mentioned steps were a) comprehensive involvement of the marsh refugee population in restoration planning, design and implementation, b) early removal of the offending dams, drains, canals and interceptors, c) pilot-scale restoration projects to test the power of available techniques, d) reintroduction of marshlands plants and animals, f) financial support for ecological restoration projects and traditional-style livelihoods and g) improved electricity, telephone and health care services.

Introduction:

The Mesopotamian Marshlands of Southern Iraq once occupied more than 20,000 square kilometers on both sides of the Lower Tigris and Euphrates Rivers and their confluence with the Shatt-al-Arab River that flows to the Persian Gulf. Before, during and after the 1991 Gulf War, the Iraqi government severely persecuted the Marsh Inhabitants -- who numbered approximately half a million -- plus others who fled to the marshes to escape the long and dictatorial reign of Saddam Hussein. Especially after the Gulf War when American field generals allowed Iraq's military to retain its helicopter gunships, the regime used its aircraft and other weapons to displace, torture and kill hundreds of thousands of Marsh Inhabitants. Thousands of square kilometers of globally-significant wetlands were also drained, desiccated and poisoned, causing widespread contamination and the relatively-rapid demise of this vast historic region and sustainable culture.

Although necessary, simply restoring the flow of water to the region by removing the large network of offending dams, levees and drainage works will likely not be sufficient to permit recovery of the marshes. Irreversible changes and other changes difficult to reverse may have occurred: The regime destroyed the dense, towering reed beds, attacked and exterminated fish and game and the people's livestock, bombed and burned numerous villages and drastically reduced the numbers of inhabitants and confiscated their resources.



Figure 1. Looking north from Toledo, Spain

The session participants were generally aware of the ecological catastrophe in southern Iraq and the existence of refugees and exiles from the marshlands who were now living in Iraq, Iran, other areas of the Middle East, Europe and United States. However, the participants were not restoration specialists nor, as a group, did they possess detailed knowledge about who or what caused the demise of the marshlands. They were not yet involved in any part of the marshlands restoration movement that dates back to the closing days of the 1991 Gulf War and that now includes dozens of national and international agencies, non-governmental organizations, scientists and engineers.

Method:

The participants assembled in a conference room, seated around a large table equipped with desk-style microphones connected to the room's audio system. The presenters gave an introductory slide-show of maps and images of southern Iraq and the Middle East. The slides described the history of the region, from the ancient cities of Mesopotamia to the modern era, including the 1991 Gulf War, the "no-fly" zones, the attacks on the marshlands and inhabitants and the most recent re-invasion of Iraq. The presenters followed this with additional slides and personal stories about former life in the marshes, the causes and consequences of the marshlands catastrophe and the urgent need for ecological restoration. *This part of the session represented the factual information and reasoning needed to understand and prepare for the ecological restoration of damaged homelands.*

Then, from several decks of conventional playing cards, the presenters dealt three cards to each participant. The presenters had prepared the cards in advance by covering each face with a small blank adhesive piece of notepaper for writing upon during the

exercise. Everyone became "card players" in the marshlands restoration exercise. They were asked to form into groups of three, thus nine cards per group, and given 15-20 minutes to discuss, decide and write down hypothetical recommended sequences to restore the marshlands, i.e. one step per card, and nine cards per sequence from beginning to completion. *This part of the session recognized the potential for anyone, even strangers, to work in groups to study environmental and social problems and recommend ways to solve them.*

The players were instructed to give particular attention to a) their first and second steps in the restoration sequence, to represent their most urgent recommendations, and b) their final two steps, to demonstrate how and when they would recognize that restoration was complete. Within this framework, they were to suggest and insert five intermediate steps from among the large number of possible technical, organizational, ecological, cultural or economic tasks. *This part of the session recognized the ability of groups to recommend and organize tasks into sequences to repair damaged homelands.*

While the groups were working, the presenters visited each one to answer questions and the players "brainstorm" about critical and practical steps towards marshlands restoration. *This simulated the responsibility of experts to the general public.* After a brief extension of time, each group was asked to complete their recommended sequences and "show their cards" face-up on the conference table. This allowed everyone to examine, compare and contrast recommendations and sequences, group by group. *This represented the transparency essential to the process of planning for ecological restoration.*

Each group was then asked to select one of their players to report aloud and review their recommended steps and sequences. While listening to the reports, players were asked to raise their hands whenever someone else's recommendation matched one of their own, regardless of where they appeared in a sequence.

At the end of the exercise, the cards were collected, each group's sequence taped together in strip form, and then all were taped one above the other onto a large sheet of chart paper. The presenters also prepared and posted a "summary sequence" showing the sessions' most frequent recommendations and where they occurred in sequence [Figure 2].

Results:

Combining all groups, the most frequent recommendations for each step were:

Step 1.

- Insure local involvement throughout the restoration process;
- Collect data for expert review;
- Remove the dams

Step 2.

- Involve stakeholders, including governments, NGO's and academics;
- Begin media public awareness;
- Begin pilot study;
- Look for precedent cases/projects

Step 3.

Survey and assess the situation;
Remove the dams;
Organize the social structure;
Pilot project information sharing

Step 4.

Return ownership of marshlands to the refugees;
Monitor progress;
Working group;
Return the water and refugees;
Rebuild the marshlands economy

Step 5.

Financial support;
Pilot study;
Organise all stakeholders;
Re-establish livelihoods

Step 6.

Networking internationally;
Select area based on their urgency or need of restoration;
Return the refugees;
Improve economic opportunities

Step 7.

Economic study, capacity building;
Establish information system to measure progress

Step 8.

Evaluate success;
Implement the project;
Improve livelihoods;
Open water channels;
Return the refugees to their former homes/homelands

Step 9.

Follow up international recommendations for sustainability;
Building new institutions;
Improve human health re environmental quality

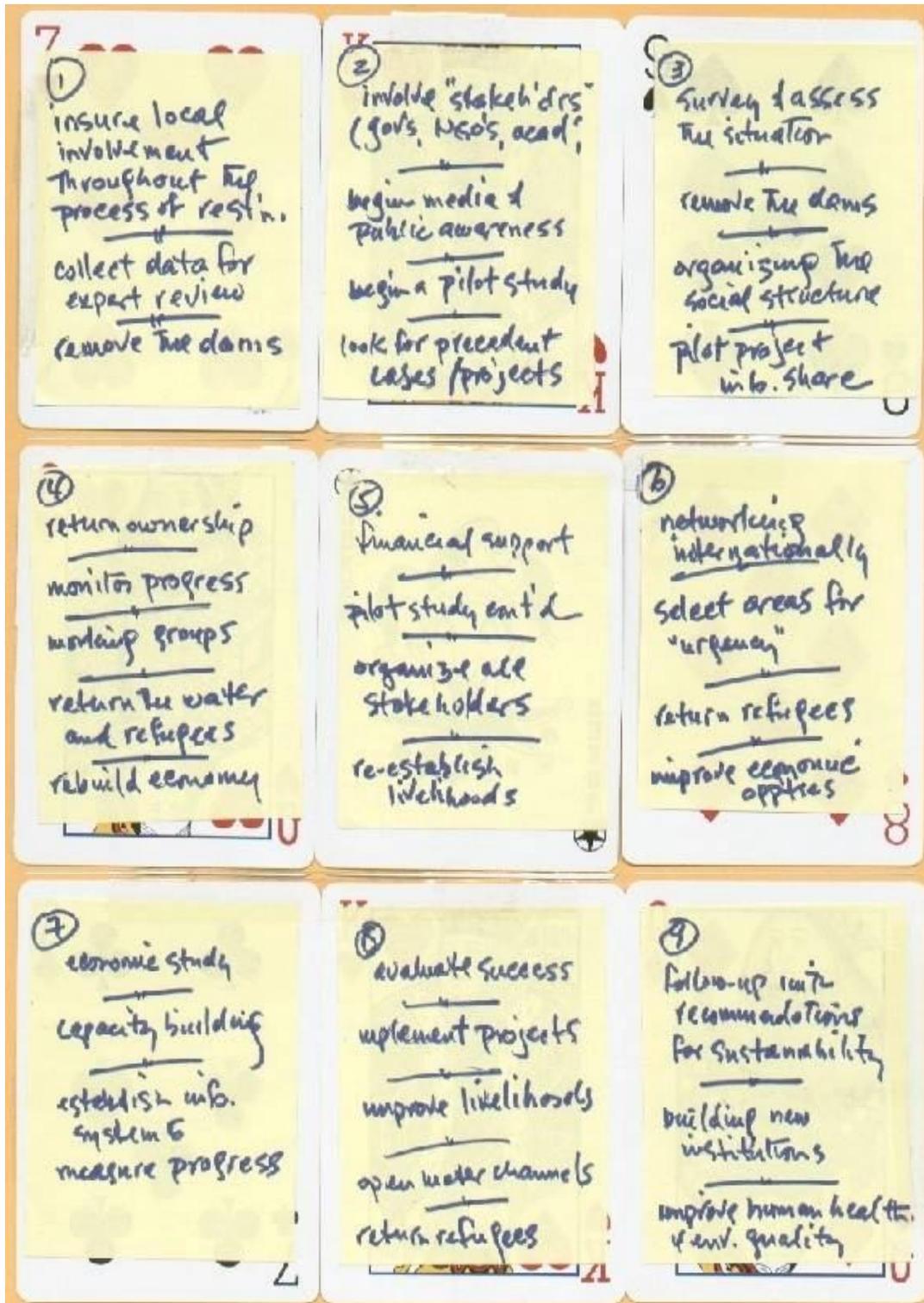


Figure 2. Cards summarizing groups' restoration recommendations for each step.

The recommended restoration sequences of the individual working groups, as written on the cards:

Group A.

1. Forming a professional team: hydrologists, ecosystem managers, hydrogeologists; Study proposal.
2. Team: Anthropologists, sociologists, civil society activists for public consultation with local communities.
3. After each step and before starting the new step, to make evaluation.
4. [Open card]
5. [Open card]
6. [Open card]
7. Bring back the birds, animals to native ecosystem.
8. Open the water channels.
9. Return back the marsh people to their native community.

Group B:

First two steps:

- Planning.
- Infrastructure.

Last two steps:

- Encouraging investors: agriculture, industrial, education, etc.
- Encouraging return of people who left after draining of marshlands.

Group C:

1. a. Research: socio-economic, environmental, political, tourism res.; b. Survey; c. Case study of Al Nasiriya and other world case studies; d. Feasibility study; e. Collect stories: historical, ecological.
2. Use and benefit from the specialists in the field, e.g. UNESCO, UNEP, etc.
3. Pilot phase: certain place, certain time, certain people.
4. Restoring natural habitat for selected area.
5. Allow the water to return by diverting the water back to its location.
6. Securing means of living to encourage the displaced to return home.
7. Tools: 1. Give loans for locals; 2. Encourage people to buy their goods; 3. Capacity building (indigenous and traditional way of living).
8. Assessment of pilot phase.
9. Implement the project.

Group D:

1. Comprehensive feasibility study (status, previous and items for restoration, physical, biological, socio-cultural).
2. Involvement of all the stakeholders (NGO's, local people, decision makers, academic institution, media....).
3. Comprehensive study: practical steps for implementation. Benefit from the experience of the others in the same field.
4. Implementation of the project (plan and schedule).

5. Financial support from national organizations and international donors.
6. Networking with International organizations (IUCN, CBC, UNESCO, UNEP, Ramsar)
7. [Open card]
8. Evaluation of the project and recommendations.
9. Follow-up of the recommendations and sustainability of the project.

Group E:

1. Analysis and research: Collect stories/histories/information from the people in the marshland: historical aspect, ecological aspect
2. Planning and study: Comparison of the current situation and previous one; better practice; feasibility; setting duration.
3. Media, public awareness, NGOs' further support.
4. Implementation and realization; support; 4.a. Finance; 4.b. Open the dam and break the canal.
5. Evaluation: Ecological/environment -- compare with original situation; Social – number of people returned; Economic – income sufficient.
6. Start planning future projects.
7. Bring back original habitat.

Group F:

1. Creating local leadership.
2. Collect information by local population.
3. Organizing social infrastructure.
4. Blow up the dams carefully, and one by one.
5. Monitoring the ecosystem, research.
6. Dislocate [relocate] population according to available resources.
7. Communicating, creating recognition/political entity in Iraq/rest of world.
8. Re-flood the area.
9. Bring population back to live as they used to.

Group G:

1. Demolition of the dams to restore water flow.
2. Creating an NGO to spread awareness of the marshlands, in collaboration with government organizations and international organizations.
3. Using the respected community elderly in connecting the community together again from the various camps.
4. World acknowledgement that the marshlands are being restored and locals and volunteers are welcome to join (done through media) with UNEP and NGOs under one slogan.
5. Agree with the local communities with upper hand with communities on an ecotourism plan that will maintain the lifestyle of the communities.
6. Attract investors and partnerships to fund the execution and the project's plans laid out by the local communities.
7. Life system for the local communities including health, clean water, useful education, etc.
8. Regulate and monitor the function of the ecotouristic activities and to ensure compliance and sustainability.

Group H:

1. Inviting or taking the most respected and trusted members of the community to give their recommendations according to restoration.
2. Consult the scientific communities on the needed measures for restoration.
3. Surveying and assessing the current situation (damage) in the marshland.
4. Build an ownership among locals to give them incentives of restoration.
5. Start with a pilot project from the three areas [in the deep marshes: Hawizeh, Central, Hammar].
6. Prioritize the areas of restoration starting with the less-damaged areas.
7. Conduct an environmental impact assessment before implementing the project (including the alternatives).
8. To give concrete proposals and suggestions about restoration of the marshland.
9. Building an institutional capacity; the people have to have better education, health, awareness of how to protect their areas.

Group I:

1. Defining objectives, priorities, action plans, options – participatory approach.
2. Implementing sustainable plans according to defined objectives, schedules/survey, timetables, tasks and archives.
3. Public awareness.
4. Returning water into the marshes.
5. Returning refugees to the marshes.
6. Establishing local NGOs.
7. Capacity building to locals.
8. Improving livelihoods.
9. Proposal for funds, monitoring and evaluation.

Group J:

1. Initial meeting the people and checking their needs and desires. Environmental impact assessment (eco-cultural status, cost-benefit. Assess potential for creating local livelihood without hurting the environment (ecological).
2. Initial political analysis and decision on saving the marshes. Initial political decisions to be taken. Donors, loans located.
3. Assign a working group: IUCN, donor representatives, UINESCO, UNEP, UN refugee, government (M of E), ecologists, university, private sector, local environmental NGO's to take this Pilot Project, members and leaders of communities.
4. Working group assigns terms of reference (expected developers [?], expectations, allocation of resources, direction of the projects).
5. Action Plan with early milestones involving the components: people, land, natural resources, capacity-building, environment, ecotourism, ecocultural status.
6. Second political decision, high-level, decisionmaking, [e.g.] World Heritage Biosphere Reserve.
7. Assign resources to implement with community for [?]. Set up an environmental education mechanism for all people (public awareness and PR media tool for [?]).
8. International environmental NGO to monitor the process and revise the process for improvements to ensure sustainability. Microfinance.

Session Transcript, minimally edited [tapes and slides available upon request]:

Prof. Hamid Ahmed, Halton College, UK:

I wish to go quickly through a few slides and figures, and then I will concentrate more on the topic of the marshes, including my experience of them. Unfortunately, the dominant paradigm of biology nowadays is characterized by genetic engineering and biotechnology. Some people call it an unholy alliance of these two fields. We're talking about the gene, recombinant DNA technology, cloning, etc. These techniques might go astray if they're not being guided properly and sensibly.

This limited view of life is really threatening to eliminate diversity and pluralism, in knowledge and action and in nature and culture. But this is the stand of this dominant field of biology. We always talk about "genetic engineering," "transferring genes," "GM [genetically modified] crops," "cloning," "gene therapy," etc." All these buzzwords really try to reduce our knowledge of life to that particular molecule "DNA". Consequently, we refer to human beings as a "perpendicular machine," the brain as "computer," the heart as "ticker" and our guts as "plumbing."

So, we've reduced life to that mechanical aspect that detaches from the other creatures, from the ecosystem that we live in. We are hoping that future studies will look to a "compassionate era," not an industrial one, where we could relate to our environment, to our ecosystem, to our other creatures, not only as selfish human beings. As one very controversial scholar in Britain, Richard Dawkins, talks about "*The Selfish Gene*" [Oxford University Press, 1976, 1989], that we all are living for our own selves and are driven by the genetic molecule that we've got. Some extremists call it "*Genes Are Us*," i.e. we are all really our genes, not only the physical part. Unfortunately they are now advocating that behavioral aspects of our life are being dictated by our genes. This is a topic that needs a lot of debate...

But hopefully, if we took the eagle's view, we live in a sort of a Global Village. That's what we call the "Post-Modern" view. This village is so connected, and you can't really live on your own. There aren't any national boundaries nowadays, with all this networking and all this communication. Like our view of the body, according to some Muslim traditions, where we characterize humanity as one body...when one thing, one finger, or a few cells in our body are being affected, the whole body is being harmed and affected. So, the world is a sort of like a human body, whose parts are connected with each other.

Martin Luther King said something quite like this, "Injustice anywhere in the world threatens justice everywhere." If you have got a space in that Globe which has injustice, it will threaten the justice all over the world. It just demonstrates that we live in a global village, interconnected.

The Italian philosopher [Giuseppe Mazzini], I like this great saying. As people who comment about the terrible developments in our future, this really should be an anthem, or should be a slogan: "God has given you your country as cradle, and humanity as mother. You cannot rightly love your brethren of the cradle if you love not the common mother." [That is] a sense of belonging to humanity. The global view is not only our

country, it is not only ourselves...that's selfishness. That materialistic life is what has driven the world into chaos nowadays. So we need to live in a broader sense.

As for sustainable development, I went to a few websites just to give people from the Middle East, as outsiders, an idea of what sustainable development is and how it started. So it might be a few slides; I'll not spend a lot of time on it, but it will be for your reference.

What does sustainable development mean? For a definition of that, here is what it really is about. You have to use resources, but you have to think of the people of future generations. It means utilizing resources in a sensible way, because we're not only living for our own purposes, but also for future generations. And the idea really started when the people from the United Nations sort of tried to do some global surveys about the development of other nations. When they tried to see the economy, the condition of the people and the environment, they found that the combination of what you call this "trinity of despair" -- poverty, unemployment, resource use and environmental deterioration -- created a condition that is not sustainable. So they came up with this term, "sustainable development."

As I said, I'm not going to indulge in these details. You will have that information, and if you need anything about it. It is just for a sort of background about sustainable development, how it started and what commitments were made at the Rio [de Janeiro, Brazil] Summit in 1992 where we came to this Agenda 21 that asked each country and each organization to provide a sort of sustainable development package. [for reference: <http://www.un.org/esa/sustdev/csd/csd13/csd13.htm>]

And at the same time, two very prestigious academic institutions came up with a joint statement that the future of our planet is in the balance, and sustainable development is the answer to that problem. Again, at the same time, about one thousand five hundred scientists and ninety-nine Nobel Prize winners also issued a statement that people and the natural world are on a collision course. So all these, really, are alarming remarks, saying to the people, "Hey, this industrial world is untenable, unsustainable."

So, let us just look into how the marshes and the Marsh Arab could be sustained. That's actually our aim, and we advocate for that. This really is my report and here is the website where you can print it: <http://www.public.iastate.edu/~mariposa/hamid2.htm> ["The Marshes of Southern Iraq and the Marsh Arabs: Ecocide and Genocide"]

What do people sometimes, for example, ask me when I speak throughout Britain? "What is genocide and ecocide?" So, this is a definition by Webster's Dictionary... "a deliberate and systematic destruction of a racial, political and cultural group." That's genocide. On the other hand, ecocide is "heedless or deliberate destruction of the natural environment, either by pollutants or by an act of war." And that was exactly what happened in the marshes. The people – indigenous people – are being systematically destroyed or forced to escape, and the marshes, of which I'm going to show you some slides, have been deliberately drained. As Mr. Leiderman mentioned, half a million people were forced to escape and a lot of indigenous species, whether birds, plants, fish, are being extinguished because there's no more water there.

And it's difficult, really, to give you thirty years of experience in just one hour or fifty minutes, so I'm just going to go through my experience with the marshes during the 1970s when my family used to have land there and we used to enjoy that area. I'll show you some slides of that. So, I'll talk quickly about the 1970s in that area, then the history of the civilization, culture and social life.

In the 1980s, at the start of the Iran-Iraq War. The alteration of the ecosystem really started at that time, during the early 1980s. Then, in the 1990s actually, the ecocide and genocide took place. And what was the world's response? From last year onward, there was a huge sort of international effort organized by UNEP [United Nations Environment Programme] – roundtables, meetings, seminars – and they illustrated the scale of environmental devastation, using imaging satellites. We have got some of them to show you. And also the involvement of GO's [government organizations] and NGO's [non-governmental organizations] activity for the marsh restoration.

What I decided to tell you, in the 1990s when I left Iraq and started my sabbatical leave in Edinburgh, Scotland...when I left in 1990 for England, the previous regime invaded Kuwait. After the invasion, Iraq started immense engineering works to drain the marshes. At that time, being from that area, knowing that area, I started to campaign in 1990, '91 and '92, in Scottish universities, Amnesty International and other organizations. I always started by giving the geography of the area, the social life, the scientific values, and then I ended up with the world response.

This is actually the same set of questions that I asked audiences in 1990, '91 and '92. These were the questions I asked at the time: "What has been the world response to these crimes?" "What has the United Nations done about these crimes?" "What support do the Western powers give to these people?" and "What excuse can there be for the world's indifference and inaction to the crimes of the most ruthless dictator in the world?"

Unfortunately, these questions have been answered thirteen years later. It took the world thirteen years to try to answer some of these questions, not all of them. And, taking no action, the West and the United Nations overturned their own standard on justice.

Just to give you now, quickly...this is the water distribution in Iraq. You have got the Tigris, going from Turkey down to the Gulf, and the Euphrates. This is the area we are talking about, the South, the marshes. These are the Hawizeh marshes. Almost a third of it is in Iraq and two-thirds in Iran. Hopefully, this marsh vegetation will be used as a seed, in theory, because this is still intact. And you've got the Central marshes between the Tigris and Euphrates, and then you've got the Hammar marshes. These three areas are very unique in culture, in ecosystem, the fauna and flora, and they cover about twenty thousand square kilometers. This is a topographical view of the marshes. It looks like a bad case of chicken pox, a vast area of water...this is before the drainage of the marshes. Again, this is another overview of the marshes.

Now, let's talk about history and civilization. I mean, this figure is in the Iraqi museum: a Sumerian figure that is five thousand years old, and some historians compare this figure to the recent Iraqi Marsh Arab. In this slide, you can see the comparison. Just try to relate that figure, back five thousand years. It's almost the same traditional clothes he's wearing.

Here's a silver model from the ruin of the city, "Ur", five thousand years old, again from the Iraqi museum. You can see the canoe with the paddles, exactly the same as this little girl in the photograph is using. The same sort of canoes.

You have this Sumerian cylindrical seal, where you've got these two guys using fishing spears, a primitive way but almost comparable to 5000-year-old tools.

Here is a stone trough in the British Museum where you can see the pattern of the reed houses. It's almost the same heritage through generations. And you've got the Senharib's soldiers who were going to the king of Babylon in 703 B.C. You can see these warriors having that canoe in the swamps of the marshes, with crabs, fishes and reeds as well [Figure 3].



Figure 3. Ancient tablet showing Marsh Inhabitants, canoe, reeds, crabs, fishes.

So, this is just to tell you that the culture, the life in that part of the area, is five thousand years old. It is the start of the civilization in that area, the start of writing, actually, in that area. The father of the prophet, Abraham, was born in Ur. So, this tells you historically how old it is and how civilizations started from that area.

Culture and social life as I see it...because as I said, we lived there, we had land in the marshes, we used to go with marine biology students to do some project research during 1980's, so I knew this area, socially, scientifically, and culturally.

The marshes are really the spiritual inspiration for the Marsh Arabs. If you go to the marshes and you go to that tranquility, you see that the Marsh Arabs all are poets, or singers. With that peace, with that "end of the world" place, where only the water and the sky, and their simple life – buffaloes, cattle – and they are a sustainable society. They don't need the city because they have got all the things they need. Later, I will elaborate a bit more about that [Figure 4] .

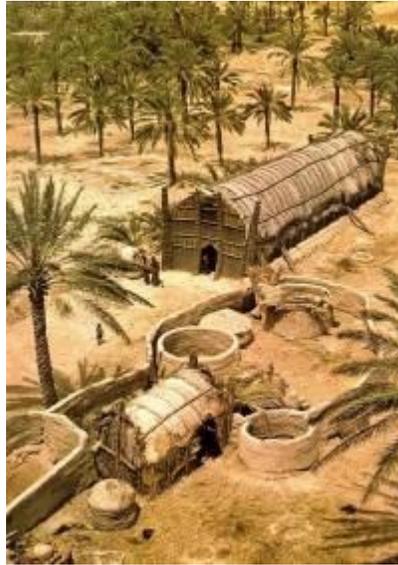


Figure 4. Traditional marsh guest house, building and enclosures.

It is a place of loving-kindness and boundless hospitality. When you go to that place, when we come from the city to visit them, they want really to share everything with you. They have very simple houses, very simple furniture, but they are so open and frank and loving people. Very kind people. And they also provide the kinds of resources for sustainable local livelihoods.

The people are very dedicated, very hardworking. Teamwork. These old ladies and old gentlemen and all the kids are a team. For example, they bring all these reeds during the summertime, and try to build those lovely houses, we call them guesthouses. And I was just discussing with Stuart Leiderman yesterday, the temperature in the summer – during this time in the marshes – is about forty-five to fifty degrees Centigrade; it is baking...very, very warm. Not warm -- hot! So I wondered, during the 1970s when I used to go with my family and kids and in one of these houses, you go and dip in the water and, coming out of the water and going inside...they've got this kind of window where they roll it up. Once you go there, there is a very cool breeze coming to you, like air conditioning or an air cooler. We, in the city, don't have this amenity, though we have electricity. But we don't enjoy that cleanliness of water and that breeze and that atmosphere.

This is the guesthouse. As I said, they are very hospitable people, and all this food -- they don't buy it from outside -- all this food is grown in the marshes. They have this rice, which I'll mention a bit later, we call it, in Arabic, "amber" [a rice variety]. It has nothing to do with basmati [rice]. It is the highest, fine quality. From a hundred meters away, you smell this rice. And unfortunately now, it's all gone away.

And they have a very specific way of doing the fish barbecue. We do it, now, in the West. In my garden in the house, we sometimes try to enjoy it, with these coals, and cook whatever...the fish or the meat. But [cooking] on the reeds, it's a totally different story. It's got a specific smell, a specific aroma and there's no analogy to it. When I'm

saying that, I experienced that. You go to the marshes, take the fish from the net...and the net would be full of fish. You have the reeds, put the fish on the bundle of reeds, and enjoy these. And the bread, they do it in what they call "oven clay." In Arabic, it's called "tanoor." So, in tanoor, they put the bread, thick bread, and put the fish sometimes in it. But they don't use coals, they always use the renewable energy, the reeds.

As I said, it is teamwork. All the people are working. And they do all kinds of work, as a sustainable practice, all through the generations, still using the simple tools for their own. I'm not saying, as in the English term, that they are "Luddite in their hearts," but they are really away from those technological devices. They use their simple, sustainable practices, and are very hard working people.

One part of their livelihood is the buffaloes. Buffaloes are a part of the family; they have them in their houses. And it is really sort of a wonder. I mean, they live with that, generation and generation. And we, from the city, we come purposely to that area in order to get the milk of that buffalo which has a specific kind of milk...it's quite thick. And they form cream from it, which is very specific to that area. As in England, they've got something similar to it, called "Scottish tablets" [sp?].

Also, they have various skills in making these different kinds of boats, different kinds of mashoof, different kinds of tarada, war canoes, like a Ford assembly in America.

And, this guy who was a very close friend of mine. Does anyone know? Have you seen this guy before? This is Ezzedin Salim, the Iraqi governing council chairman who was assassinated last month. He was one of the governing council. This guy is actually from this area, from the Houwehr [sp?] village, on the border of the Hammer marshes, noted for making the mashoof and canoe.

And there are still people in the marshes who are studying the English language. This shows a school that is open to the marshes. It's quite nice.

And it's a safe haven for two-thirds of the wildlife. If you go during the autumn when the winter is coming, this area -- with the warmth of the area -- attracts thousands and thousands of birds. When you go to that area and you see all this wildlife; it's a wonderful scene. It's a very natural, wonderful scene.

This is Qurna. This is the Tigris and this is Euphrates, and they meet in Qurna. And this is the Shatt-al-Arab. This is where...what they call "Garden of Eden." And still, actually, they've got a tree that they call "Adam's Tree" that is a tourist attraction because it's supposed to be where Adam descended from that area.

I put this slide here because my uncle used to have land near the marshes that was all for the rice plantation. And as I mentioned, this area is all...I was reading last year or the year before, following my passion for this area, that during the Islamic era, during the [Mu'wiat dynasty], when the Islamic countries were expanding from the west to the east, they actually used that area to sustain life in the big Muslim countries. Because of the fertility. It was fertile and there were plenty of crops there. As I mentioned, it was twenty thousand square kilometers.

This is...when we were in the university in Basrah during the 1970s...when we finished, we crossed Shatt-al-Arab and we come to have our lunch, and this "Sheikh Khazal" [sp?], one of the emirs of the Arabistan [sp?], this was his house. And it was changed, or turned into a restaurant for the university students. And you can see the forest of date palms. Basrah is one of the cities that enjoyed the greatest plantations of the date palm. They had got thirty-two million date palms. Thirty-two million date palms. Recently, the United Nations Environmental Program had an estimate that there were about fifteen million left, so more than fifty percent of the date palms were eradicated.

And now, this house is where Saddam's palace is. And this, which he hadn't been in, he just built it and denied the people from this area, because this was a public park. And he built that when the Iran-Iraq war finished. And he's never been in that house, and now, it's occupied by British military headquarters. I went, actually, last year to visit that area, because we'd seen it on the TV, and you see all these golden tapes and all this fancy decoration, but the nasty man had never come to that place. He spent all those millions, and all his gang used to terrorize the people and use that place and deny two million people from the only park in Basrah. This is the only park where families could come to rest and enjoy. Since 1988, no one could approach that area.

Now, I'll just quickly go to March 1972. This is the area of the satellite images. And now let us see what the regime did to that area, what he's actually doing. So, engineering works in the 1990s were mainly affecting the Central marshes and affecting the Hammar marshes. This is, as we said, this is the desiccation...an awful work, about months' work day and night during 1991 and 1992, in order to do all that work, and that's while under international sanction.

So, all the resources of the country were being directed to that area in order to drain those marshes. Why? Because some rebels, some deserters, some people not loyal to the regime, sought refuge in that area. I know the Marsh Arab people; they have nothing to do with politics. They are very simple people, living their lives day-to-day. But their guilt...because their area is so inaccessible and have got huge forests of reeds and waterways, that it sort of made a refuge for a certain fraction of society who were not loyal to the regime. What he did, he tried to drain all that, kill all the environment and the indigenous people, in order for a few thousand, maybe, would be recaptured.

So what did he do in 1990 and 1991? He built an east-west and north-south canal, extended here, this one, and then this one. So all the forty-four distributaries from the Tigris...instead of feeding the marshes, he directed the water down to Shatt-al-Arab. And also, he built what he called the "Crown of Battles"...you see all these buzzwords? And this, in order to capture the excessive water and put it into the desert, in a sort of basin, and leave it to dry out without being used, in order to reduce the flow of water to the marshes.

And then he built a dam here in order to prevent water from Hammar to go to the Central marshes. So actually, it's circulating in this area, and then this area has almost disappeared. And this is actually a canal, and you can see that all this green was replaced by dry arid area [Figure 5].

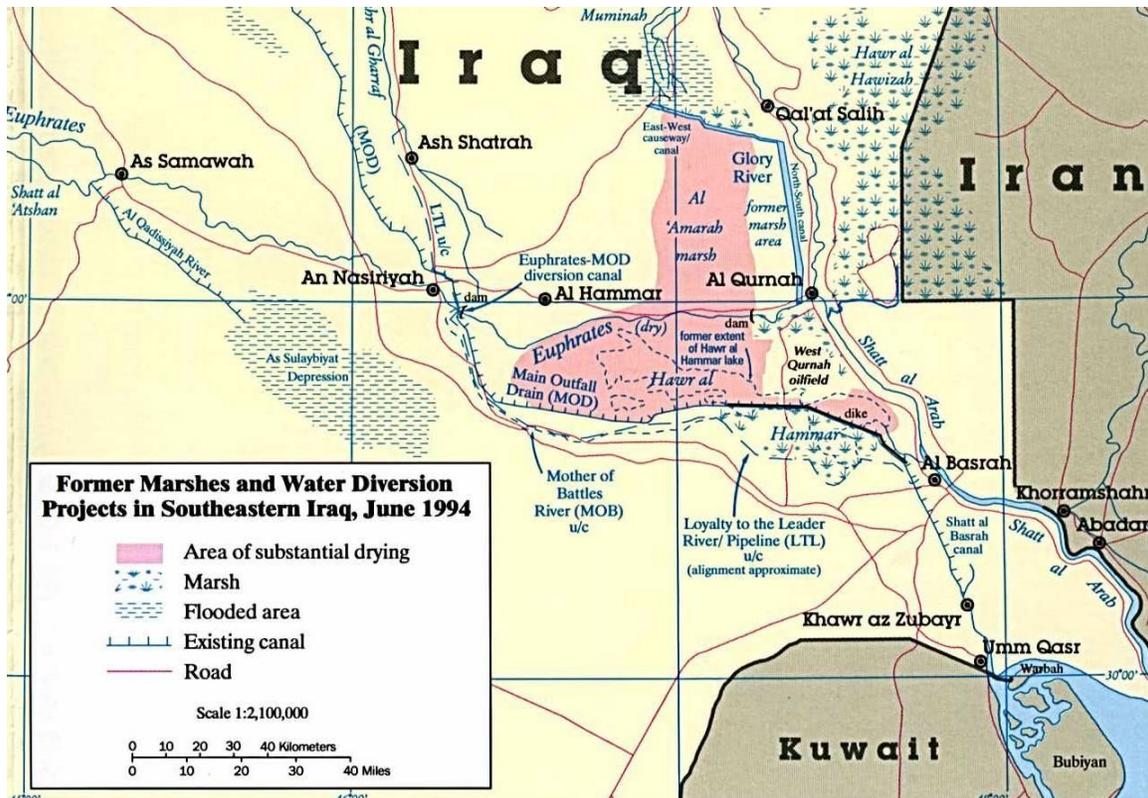


Figure 5. US Central Intelligence Agency map of water diversions in Southern Iraq.

Now, he gets rid of this one, and we're left with this one. And you see what he has done: We have got what you call a "river," though it started in 1952, what you call "Main Outfall Drain," the idea being to drain some salinity from the water of the Tigris and Euphrates, but it was up to here. Once he came to power, he called it "Saddam's River" in order to take water from the Euphrates. And then he also built what was called "Alqadyssia River" to take other water to put it into "Sullybikhat," a desert area, in order to dry it. And then this water, he made a siphon in order to drain that water below the marshes, in order to come to the "Mother of Battles River." All these nasty words. Unfortunately, a lot of our brethren Arab have fantasized about these words, and really they don't know a damn thing about them. They were just "hooligans," as we say in English, just "Mother of the Battle" or [Alqadyssia] or whatever they call it...and we really get emotionally charged, but we don't know the actual disaster that happened to this area. And that's why some Iraqi feel a bit uneasy with our brethren Arabs, because they feel they are not sympathizing with them. Really, they don't know what actually happened inside Iraq.

And then, all these are being drained to the Shatt-al-Arab and, again, the Hammar marshes have dried. So you can see the marshes in the middle and the Hammar marshes that sustained a half a million people, is almost completely dried. Before the current war, it was only 7.5 percent, but recently some water has come back.

But you can see in this image, 1972, all this green area was from the sustainable practices of half a million people. And there were a lot of rare species because it was a

quite unique culture and its environment of fresh water sustained certain life -- fauna and flora -- this is the sort of element which only sustains specific kinds of life. And then in March 1993, and then in 2000, you can see the salt crust, here. 7,500...desiccated, with the possible extinction of fourteen bird and three mammal species, and additional ones due to habitat loss. This is a sort of preliminary finding...damage to local and Gulf fisheries, destruction of the culture and food supplies. It was cultural genocide of an indigenous people.

As I said, there is a unique project, and the objective of that project is sort of to develop a comprehensive plan for the marshlands...a prototype restoration project. And there are a lot of groups working with that project. Eden Again, from the U.S. State Department, they have what you call "topographic modeling" of the various conditions...I have seen that. They have hydrologic modeling [of water flow], interviews with indigenous people, I think I have seen a few months ago...Azzam Alwash was in the marshes to do some nice interviews. Soil and water sampling and comparative background study...all these are with a technical advisory group that's working on this project currently.

And these are some of the issues that should be addressed: Water quality in the rivers, existing soil contaminants...because it's not only...the area was close to the war zone, and previous regimes...a nuclear scientist guy who used to work for a refugee organization, has got some samples, and demonstrated that there is some soil from the marshes that has been contaminated with chemicals.

So that is really the concentration that people think...dispersal mechanisms and habitat requirements of the native marsh species, natural recruitment of native vegetation, reduction of invasive plants and animals. There is a nice term, what they call "wetland memory." And there is some memory of that, we saw it one day. Last year, when they dug through some of the dams in Nasiriya and let the water come, by personal initiative, they found that the water there...probably marsh vegetation would propagate within a month. That does happen. The reeds come again and the fish and some marine animals, and the plants, as well. Given vegetation, animals and birds will return. Yes, there is evidence that there are some animals and birds in that area, but the people are asking whether the Marsh Dwellers will return. Yes, there is some testimony and evidence that people are starting to come back only to that area. But only twenty percent of all the marshes has recovered. So, still there is a lot of work. Eighty percent needs to be recovered.

Currently, at a technical roundtable of UNEP, a couple of months ago...[we saw that] twenty percent of the marshes are now inundated, [up] from 7.5 percent in 2002. Recent samples were examined for water quality, vegetation response...and the people such as Edward Maltby from the U.K. suggested that, yes, there was a possibility for restoration of the marshes.

There are a lot of scenarios for the future. There is a potential for ecotourism. People need sorts of capacity-building training courses on wetland management and administration activities for local communities and stakeholders. Public awareness campaigns. We do a lot of campaigning in Britain and elsewhere when they invite us. We try to raise awareness about that unique area. And also, there is a need to

approach financial bodies in order to support the restoration aspect. And there is a lot of collaboration among various GO's and NGO's and multilateral bodies.

Last month, there was a multilateral meeting between Iran and Iraq about the Hawizeh marshes. We are also asking people in Middle East universities to create some sort of sustainable development program for the marshes. That, I think, is what Stuart Leiderman has in mind. Today, we'll do some sort of an exercise, a problem-based exercise, to try to utilize your brain and actually [design] a truly sustainable future of the marshes...for indigenous people, in local communities...is being revitalized.

So that is some background on the marshes. Thanks for your attention. Thank you very much.

As I said, before I answer your questions, I will be available today and tomorrow and after tomorrow. If you need anything, please do make use of me; I'll be available and I'll try my best to do whatever I can. Yes?

Question: My question is about the communities in the marshes. I am very much not in favor of what Saddam has done, but also I have some concern about the reaction of the communities. [inaudible] that these Marsh Arabs provided [inaudible] from the regime. Why didn't the community leaders decide to disarm Saddam, to prevent him from doing what he did, because they had knowledge of what he was doing with the distributaries of the Tigris and Euphrates and were familiar with them? Why didn't they take action against him?

Hamid Ahmed: How could they? How could the community protect themselves?

Question: By having control of the area. To use it as a shelter.

Hamid Ahmed: It is a vast area. They don't control it at all. I mean, these communities are fragmented, like what you'd call a "bad case of chicken pox." It's very huge. That's why, in one of the articles I told you about, these people received little sympathy because the journalists. The area is so inaccessible, even for the people who live in Basrah City. And when you go there, it's like a vast area of lagoons. People don't control all that area. For example, if they [rebels, deserters, etc.] go into one area, they [Marsh Arabs] are not the people who provide refuge for these people. These people have nothing to do with politics. But, as I said, the problem is that the area...providing sanctuary for the people, they are not the people who sort of condone these things.

Question: So they aren't able to prevent attacks?

Hamid Ahmed: How could they? I mean, these people are unarmed people. They don't have any...

Question: [inaudible long comment]

Hamid Ahmed: Yes. Let's take the worst-case scenario. Let's say these people have some sympathy, and allow these other people to seek refuge in the marshes. Does that justify the half a million...and despoiling the ecosystem? I mean, it's unjustifiable, and unexplainable. You can't find any legitimate cause for what he did. Even though, as I said, even though...and I know the people there. They have nothing to do with politics; people going on their way, doing their simple life, sustainable practice. But, as I say, the

only guilt is their environment. Even if you've got a certain tribe that had sympathy, it is not justified, the scale of devastation taking place there.

Question: [inaudible] Where was the U.S.A. from 1991 to now, when he [Saddam Hussein] was really destroying this region?

Hamid Ahmed: I am agreeing with you. There is some silence and sort of blind eye to what was going on.

Question: Do you have an idea about the radioactivity of this part of the marshes that came from the warfare.

Hamid Ahmed: Yes, I mentioned that yesterday. There is a study presented a few months ago where an oncologist, a specialist in cancer, went to Basrah and had a sample from that area, compared to Mosul and Baghdad and Samara for it, and he found that there is a statistical difference about the number of cases of cancer in Basrah because of depleted uranium. So there is a study to substantiate that. All these tanks that we left during the 1991-1992 war between Basrah and Kuwait, all these have got depleted uranium.

Question: And the shells?

Hamid Ahmed: Yes, and the shells. There is...

[audiotape side one ends, audiotape side two begins]

Prof. Saleem Ali, Coordinator, University of the Middle East Project: There is one comparison I want to mention...the difference between the invasions in recent years and what Saddam did, because there is a certain level of sentiment here about the horrible effects of those war. So, they want a comparison. Can you quickly elaborate on that, for example the uranium question and the various attacks, so people don't feel that you are an American agent or something like that. [laughter] The people say, and I'm really conscious of it. I've had to endure that myself; anytime you criticize something, they immediately say, "You're an American agent."

Hamid Ahmed: I want all our Arabic-speaking intellectual people to start thinking. It's not only for you, guys, friends. I always, when I go to these Iraqi communities in Britain and other places, I travel a lot. And when I go to different Arab countries, and even within our Iraqi community, whether in Britain or when I went last year to six Iraqi universities; talking to them, addressing them. And really my only advice for all of you [is] to be open-minded and to look not sentimentally, emotionally, but to use your rational and intellectual side. Because really, the Arab is, what you call...always we use it, "the conspiracy theory" that, if a thing is blamed on America, or everything is blamed on Israel, everything is blamed on...we always find something to blame.

But really, we, ourselves, as an Arab or a Muslim, are the first to criticize. As an Iraqi, living under the previous regime thirty-five years of my life, I didn't condone American policy. I have a lot of reservations about them, such as the one that you just mentioned. But now, America wants that area, Iraq -- whether you agree with it or not, it's the national security of the American country -- it wants that place in the Middle East to be

democratized. It needs to be, in a way. As I said, you might not agree with me, but this is from the think-tank policymakers, people who sit and contemplate and put their reports together, not what al-Jazeera or al-Arabia or these channels who try to work on the Arab sentiment of hatred. Because we live in an evolving...what you would call a "global peace."

Last week, I was in London attending a very enlightening lecture about this land [Iraq] and the evolving peace. We have to live globally, we have to approach other peoples' hearts and minds and stop thinking that everything we are doing, either you are... As for example, Ezzedin Salim, this guy who has been assassinated. When you look to the anti-American websites, they say, "Yes, he was a gentle man, he was a guy who was really very down-to-earth, very intellectual, but unfortunately he came on an American tank." That is the sort of thing that really brings our countries and our communities down. We need to stop thinking sentimentally and just relax, go back and try to think what would be the benefit of democracy to our future generations, what would be to the benefit of our community, to the benefit of our country.

Now, I'm saying to all those people, "Yes, we differ with America, but let us see that they are wanting to go there, and we are going there, but at this junction, our mutual interests met. So why don't we utilize that? And also, it is a message for the American people, to try to convince their policymakers that, "Look, you have, really, to approach these people in a way, not as one..." as I said to Stuart Leiderman and Jonathan [inaudible] about this linguistic guy, Noam Chomsky...when they asked him once in an interview, "What does 'New World Order' mean?" and he said, "We are Americans sitting, and the rest of the people shine our shoes."

That's sort of what you call [inaudible] peoples' arrogance. I mean, these academies, these intellectual people really should have bridged the gap between the politicians and the other people. Now, I mentioned yesterday, frankly, to Stuart Leiderman...now this is their opportunity for America and Iraq to demonstrate to the people -- not the politicians, the intellectuals and the academies -- that, "Look, we are here doing business. We don't give a damn to politics but we want to regenerate that area [the marshes]. And once the people see this tangible proof, then definitely their perception, their atmosphere of suspicion about American policy in the Middle East, will be totally..." Yes?

Question: [inaudible -- about the stability of the previous regime and why it needed to be overthrown]

Hamid Ahmed: This is also a misconception. Our regime is a one-man regime. And once that man went, no one came to the other ministries to get the Ba'athist people. But these people, because of their vested interests in the previous regime...once that regime was gone, they escaped. They left because they knew they were not the right people for a new Iraqi government. They know what they did to the Iraqi people.

Question: [inaudible -- about the Iraqi army]

Hamid Ahmed: That's another issue, about the army. But the point I would like to mention, is that we shouldn't work with our emotions, we should work with our intelligence, with our brains, and see what is of benefit for this country and what is not.

Each one of our countries and, totally, the Arab countries, they need to have a new paradigm of thinking.

Saleem Ali: So, thank you Prof. Ahmed. [to the group] Here is someone from Iraq who is a practicing Muslim, who has worked with Muslim organizations, so you should talk with him on any level you 'd like. It's very important, and we should thank him for his contribution to our studies. He knows more about Iraqis than we do and...

Hamid Ahmed: Thank you. It is my duty to be frank with all of you and talk about what I am feeling in my heart. But I need you to learn, so this is [inaudible], fortunately, for your to grasp. Thank you very much. [applause]

Stuart Leiderman: Now we are going to convene our work session. I want everybody, please, to take a seat around the entire table. Come away from there and test to make sure that your microphone is working. [approximately thirty participants and staff seating around a large conference table]

Alright, here's what we'll do. What we are going to imagine is, we're going to generate our own original plan for the restoration of the marshes and to bring back the refugees. Here's what we'll do, and this may be...I don't know what the schedule is for the rest of the month, but this is meant to be a life or death working situation. There are simply not enough people in the world right now -- today, this afternoon -- who are committed and working productively to save that part of the world. It's not the only part of the world that needs attention, but because we have a background and a heritage from there, it's logical that we have a chance to have our say.

And, a single idea that comes out of this session could make the difference in persuading the rest of the people to do something positive. A single idea from this room, this afternoon, could do that. A single idea that someone else more powerful than us actually does there, could save the life of one or two people who used to live in that area. And one or two of those people could then survive long enough to create what we would call a "grassroots movement."

The world depends upon grassroots movements, not upon consultants. We can look at it from space, and we can gather the information, but none of us can actually save or do the repairs. That's going to take thousands and thousands of people. It's going to take a lot more than the Iraqis who are available to do the work. So, we have to find a way to magnify it.

One of the ways that people accomplish this is that they imagine that they are living as if their lives depended upon getting that idea out. If we were imagining that we were living right across the Iranian border, in the refugee camps, and somebody came to us and said, "I will give you this afternoon. Come up with an idea that persuades us to approach the former marshes and to use our resources differently than we are doing now."

The prevailing approach is one of development. It is one of accepting all of the wastes and all of the damage that was done and accepting that there's hardly nobody living there, and making believe that it is available for a completely different, likely Westernized, future.

But, because people all over the world love that area -- for the lessons and for the way it grabs them emotionally and for the preservation instinct of all of humanity -- the governments and the corporations might say, "Okay, you refugees, we'll give you this afternoon. And if you convince us in just a little way, to just change our path a little bit, and we'll do it." Do you know why? It's free advice. In the real world, a government would have to pay millions of dollars to learn how to save the Earth...

Our design for the marshes has to not only be able to bring it back to life, but it has to be able to do it in a way that it won't go backwards again. It doesn't mean that somebody says, "Okay, you guys, here are the rakes and here are the shovels and here are the seeds and here is the water...go make it nice again!" And then afterwards, we go away and they say, "Thanks a lot." And they move right in and take all the benefits for themselves. This is what happens all over the world. This is how the governments and the companies and tyrants take advantage of the "intellectual capital" of humanity.

So, an additional condition of our work is, we have to not only know how to restore it, but we have to build in the protection. We're not going to be fools. We're not going to do somebody else's work for free and then have it taken away from us again.

So, what we're going to try to do...we're going to work in groups of three. I want everybody to take three cards. [distributes decks of playing cards, with blank slips of paper attached to the card faces] Pass these around. We're going to have maybe fifteen to twenty minutes to start, and then we'll work with you, we'll come around to you. We'll count in threes, and you'll work together for fifteen or twenty minutes together. So, divide them up.

Now, on these cards, I just put blanks [adhesive slips of notepaper], so every group will have at least nine cards. What I want you to do is decide on the steps, at least nine steps, maybe ten...I want you all to decide on the steps that you would take if you were in control of the situation. Now, we've just given you a little survey about the marshes and you've also been following it in the news, and maybe you know some more that we haven't discussed. So you contribute the best of your knowledge because, as far as we know, there is nobody else in the world that's working on this today, and nobody has a better reason to do it.

Now, the requirements are, you have to decide on at least the first two steps, very specific steps, starting from where we are right now -- the area is devastated and most of the people are gone. So you have to come up with at least the first two steps. And then, you have to come up with at least the last two steps.

Now, the development process is totally different from the restoration process. The development process is where they get a bunch of bulldozers and they go out into the dry desert that used to be the marshes and they say, "Well, let's start from here, let's start pushing dirt around and we'll see where it goes. And we'll go from there."

On the other hand, restoration means, "We have to have a picture in our minds about what it will be when it's complete. Because if we don't have that idea, then the chances are that it will never be sustainable. It will always be changing and probably will degrade.

So, I want at least for you to say that you know precisely what you think will be the first two steps and the last two steps. How would you know when it's complete? And what would be the last thing, right before the completion? And then what would be the thing right before that? That makes a sequence. Then fill in with the seven or eight additional cards you have, of any sequence of steps in between. We'll do this, and then each group of three will have it, and then we'll convene a discussion and have a chance to present those steps. We'll see how similar or different they are and then we'll combine them. Then we can go anywhere we want from there. But I want to see us be productive.

Question: [asking about the minimum goals of the exercise]

Stuart Leiderman: Well, we're talking about restoring the marshlands and the return of the people to do the work and to live there, and then the variety of additional steps in between. So, it will sort of be like a sequence. Just use your best knowledge and experience and we'll see from there. I think I want to make this a high point in your experience here. I want you to know that we're not satisfied just to know there is another sad story in the world. We can't afford to sacrifice anywhere on the Earth.

Question: So we are making believe we are a group deciding about the marshes?

Stuart Leiderman: Yes. So group together and we'll check with each other at five o'clock. [working session begins, groups of players discuss and create nine-step sequences for restoring the marshes]

Stuart Leiderman: Alright, let's see. We're now in our reporting session. All the honored speakers get water to drink, lots of water...and the first step is "show me your cards." Let's go around the table, and everybody show the cards that you have. Put them out where everybody can see them. Show the cards you've got, that you've been writing on. Lay them out in some way that you can all refer to them, and decide which one in each group is going to talk for two or three minutes and describe each step and anything else that the group would like to say after your read off the cards.

We'll go around and have about a half-hour. And then keep them in order; because we'll tape them together and put them up on the office on the wall to be able to compare some things... Dr. Ahmed and I and anybody else can help you. We also brought along a large library of reference material. I went overweight. I brought all of the things in my bag, so I've got piles of books and studies and all kinds of things that could help you fill in or find some information.

So, let's begin over here. Turn on your microphone when you talk, just like they do in the "big leagues," so that everybody can hear. To make it interesting, as they are reading off their cards, if you have one that is similar, raise your hand and let's see how much of a similar conscience we have in the room. And if you hear something that you didn't think of, maybe write it down, because it might fit in between some of the steps that you had. Okay, it's all yours from now on. Read them out, step by step; each group. Listen very carefully.

Speaker for Group A:

We have specified six steps, with three steps open. The first step we want to do is to form a study team that includes time to study and to have a study paper and proposal. The second step is to have a survey by a local team of Marsh Arabs, to see what they think about it and to have their recommendations. This team would have to include looking at the disturbed sites by anthropologists and scientists. After this, the study and the survey, we have to start to apply the study to bring back the birds and the animals to the area.

As the fourth step, we have to make an evaluation, an assessment, to see if we achieved our early steps. And then we have three open steps; maybe something happens between them...we keep them open. The next to last step, we think that we have to open the channels, to let the water go back the natural areas, to the wetlands. And the last step is to return back the Marsh People to their native communities, their native place. Any questions? Thank you.

Stuart Leiderman: Thank you.

Speaker for Group B:

We refugees from Hawizeh marshes, having this new area developed, has agreed to meet. The way we do it, first of all, we agreed here in this group that the way we used to live, well, we didn't like it. Why? Because, when you are in that situation, with a half a million around, you don't have good health security and you don't have a good education and you just have people living among the waters and reeds. You can come as a tourist and look at it, but no. We are sympathetic with this community as human beings. As we want good health, we want them [the Marsh Arabs] to have the same opportunities we have.

So, we had maybe a kind of different approach to develop this community. This approach has two ideas together. First, having some things of the history of this area, the same thing about this area [inaudible] so we just don't end up like a place for tourists to take a [inaudible] again. No.

So, the way we do it, we start by having a very comprehensively-planned urban environment in this area. Okay? And we say, well, we have all the infrastructures, like water canals and [inaudible] and agricultural areas. And provide the infrastructures. And for the people who used to live in these areas, to go back to their parts of the marshes. If these guys can really locate their parts, they can go and work and farm the areas. And they'll have the canals so they can fish, enjoy fishing, but also have a good education. At the same time, we'll have industries zoned for that; and down to the seacoast [inaudible] and we can give them their gardens and lakes and a piece of land for farming, so they can be productive.

Stuart Leiderman: Okay, will you go next?

Group C:

We begin with the question of how well could we restore the Marsh Arab life again? How well could we do it? The first step is research. We would do a survey and compare it to the case of al-Nasiriya, which was a success. Number two: We agree to make a pilot case study, for a certain place, a certain time, with some certain people who were displaced from the area. Third, we need to restore the natural habitat for the selected area, which means for the fish and wildlife. The next one, securing means of living for those people who are waiting to go back and encourage the displaced to return home. If the means of living is there. So that they can go back home and stay there. The tools, now. Give loans for those people, at zero interest, for plenty of time [inaudible], for some great period of time, after which they pay back that loan. Because they are not receiving charity, they should have some loans so they can go back and live. We would encourage the people to buy their own products, from what they get from Nature and the wildlife, plants, and so on. Because, being away for some years, they might have forgotten some skills. So we need to help them re-establish their way of life. The next step is to have an assessment of the pilot phase which we have so far completed. And the last one is the implementation of the project at the larger scale.

Stuart Leiderman: Thank you. Number your cards so that when we put them up, we won't get them mixed up.

Speaker for Group D:

So, for our project, what are the steps for the restoration of the marshes? First, to conduct a feasibility study, to see what is the status of the previous one, and what can be done to make the restoration of this marsh in terms of physical, biological, social and [inaudible]. Second, involvement of all the stakeholders -- NGO's, local community, decision-makers, academician, institutions, media, etc. Then, a comprehensive study to come to the decision to implement ahead with this project. After that, we have to conduct a comprehensive study to determine the steps for implementation and benefit from the experience of the [inaudible]. Second, implementation of the plan and the schedule. Third, financial support from the national and international donors. Fourth, networking with international NGO's like IUCN, CBD, UNESCO, UNEP, Ramsar and others who are support restoration.

Then, we are talking about the last two steps. First, evaluation of the project and our recommendations of what to do. And the last step is the follow-up of the recommendations so we know how to be sure that the project will be sustainable.

Hamid Ahmed: Can I have your attention please? There would be an invitation for all of you, because as I understand from reading the [UME] literature...or the package that they gave us, you are required to do some sort of project work, to present it by the end of this month. So I'm inviting you, me and Stuart, that if you are interested in a project related to the marsh and the marsh area, we have plenty of material available, and on-line. We would be available through different means of communication, and we'd be happy to spend some time to refine your findings and then we'd publish it somewhere. So anyone who is interested in the marsh and the Marsh Arabs, just contact us and then we will be happy to refine your paper or reports.

Commenter: Actually, we are already specifying our selections on three workshops, one on ecotourism, one on water management and a third on energy, sustainable energy. But anyway, it would be a chance for each one of us to be in contact with the marshlands. Thank you.

Speaker for Group E:

We divided steps into [inaudible]. First, we started with analysis and research. We decided to start with the community, so we would meet with the people to do the analysis. We'd collect stories, the history of the area, how it was before. So we go where the people are living. We'd collect two different aspects: the historical aspects and the ecological aspects. This is the first step. And then comes the planning and study. So we'd do a comparison of the current situation and the situation the way it was before, and then we look for better practices, feasibility, setting the duration and then at this stage, we think it's important to do public awareness. So we'd go through the media; we'd try to do public awareness. We'd do it through NGO's and the media, just to get support and to make them well-aware of what is going on.

And then we start with implementation and realization of the project. We arrange the finance, we set the money for this and the resources. And then we need to bring back the original habitat and need to decide whether to open a dam or break a canal. So this is the time when we do it. And then, once we do it, comes the evaluation of the project – the ecological environment would be compared to the original situation. We'd actually do it at two levels: the ecological and the social levels. So we'll see the number of people who are coming back to the marsh area and we'll compare the environment with how it was, and then the economy, their income...that is, are they happy that they came back? And then after we do these steps, we start planning future projects. So we go to the people where they are; we keep going on and on, and we keep supporting them. That's all.

Speaker for Group F:

Okay. When I hear the words "feasibility study," "research analysis," "international NGO's," "agencies," what I come to think of is piles of papers, months and years of work and nothing comes out of our project. You know, lots of reports, nice pictures, and then the money goes out and nothing is achieved. I think we need to think in a non-conventional way. And we need to act now, because I think there is a window of opportunity right now that we must use. In this exercise, we are from Iraq, after all. And there are different groups which sort of take control over themselves and I think that the indigenous people who live there must work on their own and sort of show the world that they are a traditional group or an indigenous group, that they set the rules.

In terms of what to do, I think it's very obvious. I mean, the dams were built, the marshlands were dried, so one thing to do is just blow up the dams. I think that the technical ability is within Iraq, there are people who can do it. We just need to act. And I think that the community would then show the world...people would have to negotiate. Other foreign forces would have to negotiate with the people. If not, development agencies would teach them how to speak for themselves. They would make the fact, and they would determine their future. So basically, we are not accustomed to this kind

of thinking. We think of culture and...but culture is lost in Iraq every day, and this is something that should and can be achieved. This is what I think. Thank you.

Speaker for Group G:

Okay, after discussing this, we decided that our first step would be to demolish the dams to restore the water-flow and then the natural flow would take place and the natural life would begin to restore itself. Some of that is being carried out or already done. The second thing we talked about was to create an NGO to spread awareness of the marshlands and to promote collaboration with the governments and organizations, including local NGO's, to spread the idea that the marshlands are being attempted to be restored. Then, within the [refugee] camps that are there, we will make committees from each camp to make connections with each other and with the government agencies and NGOs. Then, we will get world acknowledgement as well as local acknowledgement that the marshlands are being restored. Through this, we will welcome locals to join. This can be done through the media, with UNEP and NGO's, under a certain slogan like "Restoring the Marshlands," or something similar. The fifth one is getting agreement with the local communities and giving them a part of the decision-making. This means agreeing with them, in coordination with the ministries, on a plan that will maintain the lifestyles of the communities at the same time that it creates a sort of income for the people there.

After this plan is actually finalized and arranged, this would attract investors and partnerships to fund the execution of these projects that the communities have in mind and that are laid out....

[audiotape side two ends; audiotape side three begins]

Speaker for Group G, continued:

[...and then establishment of healthy life systems in the marshes.] The last one would be regulating and monitoring the functions of the ecotouristic activities, to make sure of compliance so that there will not be overuse of the area that was restored.

Speaker for Group H:

Actually, we started our first step with the marsh people, they are the most important thing. So we solicit...have to invite the most respected and trusted members of the communities to give their recommendation concerning the restoration project. Because we need that, and those people know the environment best. Step number two is to consult the scientific communities on the needed measures for restoration. Step number three is surveying and assessing the current situation in the marshlands. Before we start the restoration, we have to know the baseline data. Step number four is to build an ownership among the locals to get them incentives to restore the marshes; the people will not return back there to their homeland without any incentive. Maybe they are happy now, with their lives; maybe they will look for another way of income. So you have to encourage them in some way to return to the marshes.

Then, we would start with pilot projects from the three areas that were damaged. So we have...the area is very wide, so I think we have to start with a pilot project in just these

areas. And, in these areas, we don't have much money, so we have to prioritize the areas of restoration starting with the less-damaged areas. I mean, not the whole area. We have to start with the less damaged ones so we get back some benefits. We'll encourage people and we'll show the additional people that, "This is your community; this is how it looked like and this is how it can be returned."

Actually, there is an important point, which is to conduct an environmental impact assessment before implementing the project. You know that is necessary, so you know what will occur in the future. And, within this EIS study, there will be alternatives. I don't know the source of the freshwater that you'll bring back to the marshlands...do we have to damage or break a dam? Do we have to cut the line that was connected, etc.? We have to conduct a study of the alternatives.

To give a complete proposal for the restoration of the marshlands, you have to write this in a way that it will convince the donors to pay some money or as much as possible so we can restore these marshlands. And the last point is building institutional capacity. The people there have to have better education, better health, and they have to know how, if there is another problem in the future, they must be aware how to protect their area, not repeating the same story again and again. Thank you. [applause]

Stuart Leiderman: Thank you. A number of hands were going up, so we showed that there is similar thinking about some of these steps.

Speaker for Group I:

Okay. Actually we just started with the assumption that we know our objectives and we know our goals. And with that, we started by a participatory approach to just get our goals and the local community, specifically stakeholders in the local community, objectives, to get the common things between our goals and their goals. And second, to define the objectives that we have agreed on and prioritize these objectives and the areas of intervention. Also to set plans and put out the options and incentives for the local communities. The second step is to implement the sustainable management plan that we have already agreed on with the local community, and through a baseline survey, schedule of tasks and activities and also timetables. Third, to raise, somehow, public awareness concerning the marshlands so that this will give us a push by documenting the project at the beginning, and also reaching a certain sensibilization of the local community and the whole country concerning the marshlands. Fourth, is to implement activities that target mainly to return the water to the marshlands, to the ecosystem, and rehabilitating the ecosystem with regards to water.

Then, is to return back the refugees to their local marshlands and to the land, to start with the local community to implement the sustainable management plan that we have already agreed on. Sixth, is to establish local NGOs and certain committees within the communities that will help continue the monitoring of the implementation of the plan. Seventh, is to capacity-building to locals, in terms of returning the skills, the agricultural skills that they have, and also capacity-building to the local NGO that are already established, in terms of evaluation, planning and monitoring. And eight, is to improve the livelihoods of the local community through alternative resource income and also through, maybe, ecotourism and other income-generating projects. And finally, nine, is

to monitor and evaluate the project and to learn from the experiences and the difficulties faced, so as to make future proposals for improvements. Thank you. [applause]

Speaker for Group J:

There is not much to be said, but we actually... most of the recommendations that have already been given out coincide with what we have come up with. We had assumed from the beginning that regardless of the situation that is happening in Iraq, we have a supposedly functional government and everything else we need so that you can actually implement a process we'd begun.

Now, out of experience, I do project management for most of the projects in Jordan, and accordingly, I made my procedure according to that...within the national overview with a political decision involved into that. So basically, we didn't really go into details of the environmental issues, but I will just give a broader sense of something which I have seen has been working in Jordan very much. Basically, we start initially by...the first step would be meeting up with the people, like the group members in the community. We're talking about a half million people, so we're going to have effective leaders, to sit them together to see what are their needs and desires and if they actually want to go back to that place in the marshlands or not. That's a decision to make, because if you actually go through all the process and all of a sudden, they might decide not to go back to where they were from, it's very hard to do that.

So, initially, we need their consent for that. And accordingly, basically you have to determine the potential of developing local livelihoods without hurting the environment, which could be ecotourism. The second step would be actually the political needs and initial analysis that would come out of the cost-benefit analysis of saving the marshes. So basically, first of all, you need to go to the political decision-makers to see if you can actually do what the whole community actually wants, and if there is a local endowment or loan or a donation that is put for that purpose. If there isn't a financial resource, you can assign a team or assign someone to work on that. But once you have assigned a financial resource, then you would say, according to the national working group that would use that process, it would be composed of a public-private, NGO-international counterparts...it could be the government or the community.

The working group would have a subgroup that receives the process...it could be a local environmental NGO that would lead the process, and see how it goes. But you need the working group to set the actions. You have a discipline sufficient in that working group just to make sure that you're actually going within the lines that they want. The fourth step is, actually, the working group will be responsible for the terms of reference, saying that those are the deliverables and this is what we're heading into, and the duration of the project and the resources that are involved in it and the expectation of that. When it comes into the actions steps, number five, with the components and the milestones, who are your counterparts? You are looking at people, the land, the natural resources, the environmental [inaudible], the eco-cultural status and also the issue of capacity programs, so it's part of what you'll do during actual implementation.

And then, after all of this, the working group goes to the government again with a higher decision-making, saying, "This is what you came up with," and the communities also have to report. And at that point, you either get the decision to do it as a world

biospherical reserve or whatever it is. Once this is approved, basically you will assign restoration teams according to each component that we have defined within our action plan and within the local communities. It's like a partnership at the local level. And at that time, public awareness is the tool you need. Basically, the teams would be [inaudible] within the media as a tool for the working group, that they are doing some goodness that the people will come and participate in that process. And, the last step would be to insure that the cycle is in the right place, that you are moving in the right policy cycle. You have to make sure that it is a transparent process and it's like, actually you might miss a couple of steps, so you will need an international environmental NGO to actually monitor the process and to revise the process for improvements. And then afterwards, you can think of the issues of micro-finance and the socioeconomic impact. I guess that's it. [applause]

Stuart Leiderman: Thank you.

Saleem Ali: Thank you. I suppose we'll wrap up now. I'm glad everyone had a chance to give his/her feedback. We can continue with this offline, and both Stuart and Dr. Ahmed will be here for a couple of days, so we can continue to talk with them.

Stuart Leiderman: I want to say to everybody, congratulations and thank you. If you leave the cards on the table, we'll get some tape and post these downstairs. We'll have a way of giving this some respect that it deserves. Now, if we had gathered this group together, just in terms of cash value, if we had gathered a group of thirty people together for one day, at five hundred dollars per person, and a thousand dollars travel, it's almost fifty thousand dollars investment just for this session... So I want you to recognize that you have that value. You can do this for any of your own case studies. This is the simplest form -- a low-tech way -- of planning exercise that I have been able to invent. You can do it, and if there is something in your own country, other than Iraq, there's no reason why we couldn't do it the same way. And electronically, maybe UME or somebody else could even conduct this type of exercise, a case study once a month, or whatever. There's a [UME] alumni group of a hundred people already. Look at the capabilities. So that's all I wanted to demonstrate, and to try to take a little bit of the tragic edge off of this story of the marshes and show you that there are some muscles that we all have. Thank you very much. [applause]

**Summary Report, Spain and USA
Hamid K. Ahmed
July 2004**

The following is a summary of three-and-half weeks' visit to Spain and USA with regard to restoration of the Mesopotamia marshland, higher education, and the current political climate in Iraq. The visit was sponsored by the University of the Middle East Project, Iowa State University, the Society of Wetland Scientists, and Human Services International-USA.

The first week was in Toledo, Spain, where I was invited to address the Institute of Sustainable Development Policies, University of the Middle East Project, Toledo, on the sustainable practices over centuries in the Mesopotamia marshland, and the current

global efforts to restore the marshes. Stuart Leiderman, who is an ardent campaigner on behalf of the 500,000 Marsh Arab, delivered a very successful low-tech interactive session on a plan to restore the marshes. This involved thirty participants, and I was privileged to share with him this extensive exercise.

The second week was at Iowa State University [ISU], Ames, Iowa, and was very fruitful. The daily formal schedule started at 7am and finished at 7pm. The informal sessions extended to 12 midnight. A lot of meetings and interviews took place. The most important and relevant ones were:

A meeting with the Dean of the Agriculture College, who promised to secure two places for young Iraqi agricultural scientists, for a month's training on the recent technological developments in agriculture. This would be sponsored through the Global Agricultural Development Program of the ISU.

A meeting with the Dean of Science and Liberal Arts, who promised to provide an office and account space on the ISU internet server to resume publication of "Marina Mesopotamica," the Journal of the Marine Science Center of Basrah University. Dr. Royce Bitzer will coordinate production with other groups at ISU and will manage the journal on a part-time basis.

I was interviewed by Iowa State radio on the program "Doctor Politics" with Prof. Steffen Schmidt, regarding Iraqi higher education, the Marshlands and the current political climate.

I was also interviewed by the Iowa State Daily newspaper on the purpose of my visit and future of Iraq.
http://www.iowastatedaily.com/vnews/display.v/ART/2004/07/15/40f5ee690d12a?in_archive=1

I delivered a very successful public lecture in the Farwell T. Brown Auditorium, at the Ames public library, on "*Restoring the Mesopotamian Marshes and Prospects for Southern Iraq.*" The program was attended by more than one hundred people. It was very well-received and generated huge sympathy among the audience towards the Marsh Arabs.

I went on fieldtrips to wetland restoration projects, agricultural projects, agronomy, and Heritage Park.

The ISU-Iraqi Initiative Group was successfully expanded and activated to include the Iraqi Minister of Agriculture and two ISU Iraqi professors who up to now had been emotionally detached from Iraq, having being traumatized by the previous regime. I felt quite happy to inspire them and to get their involvement on our project and to push them to be front-runners to champion a new program.

I met with Iowa Congressman Tom Latham's office director in order to brief him on the situation with Iraqi higher education and with the Mesopotamia marshland. He promised to champion our proposal in Washington.

I managed to have a meeting with Dr. Shafi Shaafi, manager of Human Services International-USA who was thinking of establish a mobile hospital in the marsh area.

After our discussion and contact with Iraq's deputy health minister, additional priorities were also considered.

During the third week of travel, I attended the 25th anniversary annual meeting of the Society of Wetland Scientists in Seattle, Washington, to present a paper on "The Marshes and the Marsh Arab: Ecocide and Genocide". On my arrival I attended a press conference at the Washington State Convention and Trade Center, where many newspapers and TV stations were present. Over 900 delegates attended the conference from different parts of the world. There was keen interest from the participants to learn more about Iraq's wetlands, with many opportunities for public relations and networking.

During the conference, we sent video recorded messages to Microsoft headquarters and to the office of Washington State Senator Patty Murray. The message to Microsoft concerned the lack of desktop computers in Iraqi universities. The message to Senator Murray asked for her support for Iraqi higher education and environmental programs.

I also went on field visits and was lodged at the home of an American family. The experience was an excellent and rewarding one. I have learned how much we are ignorant of American culture and, by the same token, how ignorant they are of ours. This puts a huge responsibility on our shoulders to convey message in a rational and sensible way.

I spent half of the fourth week in Atlanta and New York where I visited the offices of the Al-Khoei Foundation and was interviewed by staff of their two journals (Arabic and English) Al-Huda about the purposes of my visit to the U.S. I urged them to open their doors wide enough to American people so that they could learn more about moderate Islam and, in particular, about Iraqi people.

Stuart Leiderman
Environmental Response
P.O. Box 382
Durham, New Hampshire 03824 USA
603.776.0055
leidermn@christa.unh.edu

Dr. Hamid K. Ahmed
Halton College
Kingsway
Widnes, Cheshire WA8 6AH
United Kingdom
Tel: 0044-151-2572185
Fax: 0044-151-2577351
hamid.ahmed@haltoncollege.ac.uk