

GEORGIA

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Thursday, May 21--Wednesday, June 3, 1998

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Partnership Programs May 1998

Project	Status and Plans
National Information Learning Centre	A miniature National Library of Medicine. Remote sites in Tbilisi and other cities. Internet connection 62 kbs thro radiomodem. Minister of Health supplying about \$75,000 of budget each year. Plan to expand remote sites, establish distance learning center, upgrade equipment, and play major role in new regional centers and health research. Will play key role in establishment of a national system for biomedical information resources and healthcare research.
Emergency Medical Services Training Center	Hugely successful. Training firemen, security people, paramedics, emergency physicians. Plan to upgrade and expand equipment, establish remote training centers, expand training topics, and probably move to Central Clinical Hospital.
Partnership office	Convert to NGO. Upgrade equipment. Plan on larger role with expanded program next three years
Kutaisi Partnership	First of new regional centers for continuing education. Will contain Learning Resource Center for Nurses; Center of the Nursing Association for the region; NILC satellite, including distance learning facility; EMS satellite; Health research center, including informatics and disease surveillance; health promotion/preventive medicine center; AIDS and tuberculosis projects; Continuous education center for general practitioners and nurses, including the rational use of drugs; prosthetics center satellite
Nursing	To upgrade skills and professionalism of practicing nurses. Expansion of Nursing Learning Resource Center in Tbilisi and extension to satellite centers.
Health Education	Nursing School at TSU has new dean, plans to start accepting students. MBA-MHA Caucasus Consortium (GTU; TSU; TSER in planning stage. New medical school at TSU. 15 house officers in training at Emory; student exchange program of 21 Tbilisi students and 17 Emory medical students.
LaGrange-Poti-Zugdidi Partnership	Establish satellites NILC & EMS both cities. Work with the partnership in various ways.
Prosthetics	CAD-CAM technology to be put in place. Have applied for \$850,000 research grant from Institute of Rehabilitation.
TB and AIDS	Expansion of current plans.
Technical Assistance	Poison control center Central Clinical Hospital Radiology Trauma Prevention Invasive cardiology Clinical laboratory services Safe blood program Biomedical Research plans (with Fogarty)

Thursday, May 21

Left Atlanta at 5:45 p.m. for Vienna after the usual hectic day of last minute preparations. I always feel a battened-down excitement when lifting off for a foreign land, the kind of excitement that makes you breathe deeply and feel happy. Some combination of the unknown, anticipation of the exotic, the promise of adventure? I well remember when I went to Southeast Asia in the Vietnam war. One Saturday I drove out of Atlanta and left my car in New Orleans to be shipped. The next Saturday I was riding down Dewey Boulevard in a convertible with a good looking woman on my right and Manila Bay on my left. Heaven. I attribute a large part of this excitement to the chance reading of *Anna and the King of Siam* as a callow youth of nine or ten. I lived on a farm in rural Georgia, one mile from Sandtown--two houses and a country store. I was enraptured.

First time to Vienna as gateway to Tbilisi. A new flight that started a couple of weeks ago. By Delta partner Austrian Airlines, which has three advantages: layover in Vienna only one hour (advantage or disadvantage depending on how you look at it--at some point will try to spend a couple of days in Vienna); Austrian Air is a 'western' airline, and not a Babyflot; and Delta frequent flyer miles. Usual uneventful uncomfortable night flight.

This trip to Georgia has two purposes: to attend the celebrations of the 80th anniversary of the independence of Georgia and of Tbilisi State University, and to make plans for the proposal we will submit for funding from US AID for our activities in Georgia the next three years.

Friday, May 22

Only 45 minutes between arrival and departure in Vienna, which is cutting it as close as possible. A worrisome point about this particular connection: if missed, would have to go to Frankfurt or some other city or wait two days for next flight. Vienna a small airport, usual Teutonic cleanliness and sterile whiteness. Plane to Tbilisi a Fokker. Seats more narrow than equivalent Boeing, which is a surprise given the Kohl-like posterior of many Germans. Three hour flight. Arrived 4:30 p.m. which is another big advantage--Istanbul arrives midnight, London arrives 5 a.m. Landed at the new Tbilisi terminal, which by Western standards is quite plain, but relative to old one is fabulous. Two customs agents. The first ten or so times I came over here always arrived at midnight. Customs agents had to come in from home, so loooooong wait. Once the man who brought the portable gate to the plane had gone home--tired of waiting--and we had to stay in the plane (300 Georgians, all smoking, and me) for an hour until he could be fetched.

Met by Zviad, the Director of our National Information Learning Centre (NILC henceforth), our 'miniature' National Library of Medicine. Went to the NILC. Visited everyone in our partnership office: Archil Kobaladze, clinical pharmacologist and excellent internist, the Director; Maia, a strikingly beautiful tall Georgian woman, an MD-MPH, who is the administrator; Lali the accountant; Kaha the cardiologist who is going to be involved in our telemedicine projects; Dato Sheshelidze, an MD and computer person. Spent some time with the nurses at the learning resource center the partnership established. On the floor above the NILC. This floor was renovated by the World Bank as a continuing clinical education center.

To Betsy's Hotel, where I always stay. Greeted by Betsy, her usual charming and elegant self. Full of pithy observations about everything. Her hotel has been written up in numerous places, including *New York Times*. Reminds me of the inn-type places in Highlands, North Carolina, where the physicians of Atlanta (and William Halsted, of all people) were wont to spend the

summers. Beautiful rugs, nice furniture, and best of all really interesting and enjoyable Georgians who cook, smile, coddle the guests and do all those little things that make Betsy's a really great place to stay. A shower, where I began to relearn European shower habits.

Dinner with Archil and his son Sergo--17 years old, budding baseball player. Sergo and I have had several conversations about him becoming a physician, but to date I have lost to law. Went to a new Tbilisi restaurant, that specializes in fish. One of the interesting changes I have seen over the years since I first came here in August 1992 is the advent of new restaurants. For the first three years there was only one or two restaurants in all of Tbilisi. Now there is one on every corner, and new ones springing up every week.

To bed and grade IV coma.

Saturday, May 23, 1998

Breakfast with Steve Sapirie. Physician-public health person who works with WHO in Geneva. He is chief of the SCI branch (Strengthening Country Health Information) of the World Health Organization. Has put together a remarkable report "Programme for Strengthening Primary Health Care, Public Health Services and Health Information in Georgia." A detailed plan that would put in place a 'system' in all the regions for addressing those problems. A central feature would be the disease surveillance and health information system. The report outlines a careful and extensive plan for informatics down practically to the village level. His plans dovetail nicely with ideas our partnership has for the health care sector the next few years.

One of my many delights at being involved with the Georgia project has been the widening of my horizons, both with fascinating people from Georgia and other cultures, and by being exposed to organizations which until now have been only words or acronyms to me. WHO is a good example. An article in *The Economist* May 9, 1998 summarizes where WHO is at this moment. It began course with a focus primarily on infectious diseases, and was in part responsible for eradicating smallpox (along with Jim Foege of our Carter Center, then with the CDC). Polio will hopefully be eliminated within two years in a similar fashion. WHO has joined with the G7 group of industrial nations in a gigantic and ambitious plan against malaria. But, in the *Economist's* words,

"Apart from AIDS and the resurgence of tuberculosis that has accompanied it, tomorrow's principal causes of ill health in poor countries are expected to become progressively more similar to those now found in the rich world.....chronic, non-communicable (and often non-treatable) diseases.....WHO will have to change its focus quite markedly, from managing immunisation programmes and combating mosquitoes, to helping countries run national health-insurance systems, tackle urban environmental-health problems and deal with rising rates of cancer, cardiovascular disease and mental illness.....The WHO is behind the times in another way as well. Parts of the organisation seem to be stuck in a 1940s public-sector timewarp. They regard government action as automatically good, profit as automatically evil, and intellectual property as theft.....But the age of medicine as a pure public service is over. Even in the poorer parts of the world, people will increasingly have to pay their own way. In fact, a far higher proportion of health spending already comes directly out of patients' pockets in poor countries than in rich ones."

The article goes on to point out how the structure and administration of the WHO is quite diffi-

cult and has deteriorated markedly in recent years. The WHO no longer has a global monopoly in health care. The World Bank has taken an increasingly larger role, recognizing, e.g., that in low and middle-income countries 8% or so of the burden of ill-health can be blamed on a lack of clean water and sewers, and an additional 18% on inadequate nutrition--a remarkable total of 36%. Consequently the Bank understands its efforts to raise the economic level of countries is inescapably tied to healthcare. This is exemplified in Georgia, where the Bank is now funding one health-related loan, and is about to plan a second. It will fund the renovation of an acute care 200 bed hospital with which we will work closely. The Bank now has a global investment of a \$10 billion portfolio of health-related loans, which is growing at 1-2 billion a year, while WHO has a yearly budget of \$900 million, unchanged in real terms since 1984.

WHO will get a new Director General in July, Gro Harlem Brundtland, former prime minister of Norway. She is expected to bring about far-reaching changes in WHO. (Norwegian political pundits call her "the Thatcher of the Left.") From my perspective of working with the Bank and WHO in Tbilisi since 1992 I will look forward to seeing what happens as WHO reinvents itself.

Steve is slated to retire in July, and wants a job that will continue to involve Georgia. Like all of us he has been seduced completely by Georgia and Georgians. He is from Tennessee, and it would suit him nicely to have an appointment at Emory's Public Health School and continue to work in Georgia. He and I will take up this possibility with Jim Curran, dean of the school, when I return to Atlanta and Steve visits during the summer.

An interlude with Irina Chanturishvili and Beso Zhgenti, her nephew. Irina is the mother of Levan Vasadze, who lived with me two years while getting an Emory MBA. Beso graduated from business school here, now works in the equivalent of the Internal Revenue Service, while getting a PhD. I have been working with Georgia State University for Beso to come there and audit courses during the fall semester. This project is nicely on track, and I will take back all the application materials with me.

Lunch with Archil and George Turkia, dean of the graduate school of Management and Public Administration at Georgian Technical University (30,000 students; equivalent of Georgia Tech in Atlanta). Bijan Fazlollahi of the Business School at Georgia State University is working with George to set up a western MBA program here. The proposal has been submitted to the Eurasia Foundation for funding to the tune of several hundred thousand dollars. Eurasia had questions about how the school was to be set up, and Bijan had asked me to talk with George. The plan is to set up the Caucasus School of Business Administration as a consortium among three institutions: Georgian Technical University, Tbilisi State University (33,000 students; equivalent of University of Georgia), and the Tbilisi School of Economic Relations (a pure business school, student body of about 1200). The dean would be chosen by a board of governors made up of various people, including the rectors of the three institutions. The point of the consortium is that three institutions would put their scarce resources together, and 'network' to form this new and badly needed program. The problem of course is what authority does the dean have, and this is what concerned Eurasia? How would tuition money (\$1500 per student per year) be collected and how can Eurasia be sure it would be used for faculty and students of the consortium? How would the dean appoint and fire faculty and dismiss students, if both belonged to one of the three institutions and did not in fact belong to the dean?

When I first began coming here the mantra amongst outside groups that were giving aid is that Georgia had very few resources, and the only method of progress would be for the resources to be pooled. We found this to be impossible. Each institution is very territorial, and the rectors jealously and zealously guard the prerogatives and perquisites of their individual institutions.

At least in the medical sector we decided networking and sharing was impossible. Consequently I had been quite interested when the business school consortium was put forth. To my amusement it is now the outside aid group who are questioning the feasibility of sharing resources.

George said he had to have a modern MBA program that turned out students trained in western business, and he would do whatever he needed to do to get one. Period. He and Archil had a heated argument about George's intent to require the TOEFEL exam (a hard English test that most of us would have difficulty with) and have all teaching in English. Archil said that was illegal and a bad idea. George said that was the only way the students could learn about western business, especially the nuances of the language that sometimes made or broke a deal. George also plans to require the GMAT. I left the lunch quite impressed with George.

George also told me about another project in which he is involved. A group from a famous molecular biology laboratory at Stanford University (Cavalli laboratory) has just left Georgia, collecting blood for DNA analysis in an effort to trace the anthropological derivations and kinships of Georgians. A project that also involves many other populations. George gave me their prospectus, which says this:

<We would like> to determine if there is a possible link between Georgian language spoken in the Transcaucasus and the Basque language. Both of these ethnic groups have been suspected to be remnants of Proto-Europeans, people who populated Europe prior to the spread of the Indo-Asians over Europe. With the new techniques of molecular biology we can study the Y chromosomes of the ethnic Georgians and compare them with nucleotide sequences from the Basques, thereby shedding light on this mystery.

The project is soliciting money, and I promised George I would share it with Doug Wallace at Emory.

A brief diversion to get my cell phone working. Had to go to the company. Communications in Georgia have been quite primitive, but they have leapfrogged--like most such countries--into having modern cell phone systems. E.g., they have had digital cell phones for two years, while Atlanta just got them, and Washington DC still hasn't. A cell phone is an essential to doing business here.

To the Children's Hospital to consult on a patient. I have remarked before how this is inevitable each visit, and so difficult. The patients are usually extremely ill, and the diagnostic data is not present. A favorite speech amongst us professors in the U.S. is how bedside clinical skills have deteriorated with the advent of CT scans and the like, and what we need to do is return to the day of the clinical skills of old. Well, by God, I'd like to see a modern neurologist feel comfortable about evaluating a comatose patient with no CT scan and only the most primitive laboratory tests.

This was a 17 year old law student who had been found comatose in his bedroom by his parents at 9 a.m., after they had a normal evening with him the night before, seeing him last at midnight. He lived with them. Taken to a hospital, where aspiration pneumonia had been diagnosed, and his lungs washed out with some unknown and probably ungodly chemical. This apparently was a frequent practice amongst Soviet Union emergency medicine physicians. He was then brought to the Children's Hospital and placed in intensive care.

A note about this hospital. About three years ago Joann McGowan, who founded an organization called Global Healing, in association with cardiologists at Egleston Hospital in Atlanta (led

by Fred Emge), set up a program to train pediatric cardiothoracic surgeons from Tbilisi in St. Petersburg. She established the pediatric cardiothoracic unit in Children's Hospital in Tbilisi about two years ago. Unlike adult cardiothoracic surgery, pediatric cardiac surgery needs mostly echocardiograms and not cardiac catheterization. The team has done at least 100 operations, and is highly successful. It is led by Irakli Metrevelli, a young surgeon who is outstanding. Joann, who I met in Atlanta some time ago, was a remarkable individual. She died of a ruptured berry aneurysm about one year ago.

I took a searching history from the father and mother. One of my goals was to find out whether there was any possibility of an overdose or drug use, without revealing this. I was certain the direct questions would not elicit any information--true in the U.S., and even more true in this culture. The story I got was of a normal intelligent lad who was making straight A's in law school, and who was quite happy. An odd history of what was called an "encephalopathy" two years ago: after playing soccer in the cold had severe headaches and "double vision" for several days; recovered at home without treatment. Absolutely no other symptoms, such as disorientation, lethargy, etc. Completely normal thereafter. I simply could not figure what to make of this. Father had a long conversation with him around midnight. About 9 a.m. the next morning went to his room to wake him, and found him lying crosswise on the bed with stertorous respirations. Called ambulance, took him to the hospital where his lungs were "cleaned out" and after about one week transferred him to this hospital.

I spoke to Irakli Metrevelli, who basically told me he arrived in acute respiratory distress syndrome (ARDS), and had remained in it. On arrival blood gases showed pO₂ of 35, pCO₂ of 65 and "normal" pH, with 50% saturation. Now requiring a high concentration of oxygen to keep his saturation normal, with chest x-ray showing a picture compatible with ARDS. He was being ventilated and kept paralyzed. Irakli told me on occasion when the sedation became light he would respond to his name and obey commands. I was surprised and delighted with this information, since I was afraid he would be brain dead. I examined him, but of course couldn't tell anything neurologically since he was paralyzed with fentanyl or something similar. His lungs had diffuse rales, and the chest x-ray was compatible with ARDS. White count, electrolytes, BUN and creatinine and liver function tests were normal. No drug screen had been done.

I told the father and mother he was receiving excellent care, and nothing further could be done but wait and hope he recovered. I told them I had asked Irakli to promise me he would take care of me if anything happened to me while in Georgia, since he and his unit were so excellent.

I went to the Metechi Palace Hotel and met on the patio with Dr. Clydette Powell, a member of a team that is consulting for AID on the health care sector in Georgia, Armenia and Azerbaijan. AID plans for the first time to put a health sector person for the Caucasus headquartered in Tbilisi. This will be part of the new AID package for these three countries. AID people on the scene, rather than in Washington, will have significant input in how AID money on health is spent. I went over our plans and accomplishments in some detail, along with our view of the needs that should be addressed in the sector.

That evening I had dinner with Alex Gachecheladze, his wife and children, and his in-laws. Alex just got his MBA at Emory, graduating a couple of weeks ago. He and I had become close last year, and I gave a dinner for him and his friends with he graduated. His roommate was Alex Doll, from Germany, who now has an outstanding job with a big consulting firm in London. Another friend was Talai from Kyrgyzkstan, a senior at Emory who will get his PhD in economics from Georgia State University. Bright, able and ambitious people who will make a huge difference in this part of the world during their time.

We had the usual Georgian table, or *supra*. Described in my diaries before. A *tamadan*, or toast-master, leads the table and makes frequent toasts. The tamadan tonight was Alex. His father-in-law is an engineer at a factory in Tbilisi that made fighter planes for the Soviet Union. I asked at some length about this. Work now mostly repairs, but they have in their plans a jet business plane. Later during my visit Archil made contact with the Minister of Industry, and I will be allowed to visit the plant during a less hectic visit in the future.

Kahetian homemade (by father-in-law) red wine flowed freely. I had a great time, and paid for it during the night by bizarre, wild technicolor dreams, and a respectable hangover the next day.

Alex is going to Moscow now to work with a securities firm. I will see him during my flying into or out of Moscow while visiting Tbilisi in the future.

Sunday, May 24th

Awakened to an improbable duet of a rooster and mocking bird. Opened my windows and was treated to a fabulous spring-like day: bright "south of France" sunlight and crisp air. Had breakfast with Francois, an economist from Canada with Price, Waterhouse. He is on a World Bank project to put in place plans including laws to make sure shareholders in the newly privatized companies will be treated appropriately. He explained to me how easy it would be for the directors of a company to select shareholders, rather than having truly publicly held companies such as we are familiar with in the west. One of the pleasures of staying at Betsy's Hotel is to meet at meals all sorts of interesting people who are in Georgia setting up various mechanisms and techniques we accept without thinking in the U.S.

Archil and I went to the Partnership office and the NILC, where I checked my Atlanta email and then we worked on the Partnership plans for the next three years. My primary reason for this trip is to lay plans for the next three years. We have been funded since we began in 1992 by US Agency for International Development (AID), which funnels its funds through a non-governmental organization (NGO) named the American International Health Alliance (AIHA). AIHA was begun in 1992 by Jim Smith (hospital administration) and Larry Gage (Washington lawyer), for the sole purpose of setting up AID-funded "partnerships" between US institutions and former Soviet Union (Newly Independent States = NIS) institutions. Jim and Larry worked together as young men in Joe Califano's department during Jimmy Carter's presidency. AIHA set up 23 or so partnerships, including ours, in the NIS, and now has some in East Europe. They have done a brilliant job. For example, they introduced informatics to all the partnerships, have set up about twelve Women's Wellness Centers, have established Healthy Communities programs, etc. Jim is an ideal role model for anyone interested in international work. The partnership program concept was initially regarded with skepticism by AID, but has been so hugely successful it is being used as a model for other programs.

The initial five year funding cycle for the partnership program for the NIS runs out this month, and AID has asked for a proposal for another three year cycle. The proposal would cover all the NIS. Georgia, Armenia and Azerbaijan would be considered a unit for the purposes of administration. About \$1 million will go to each of these three countries each year for three years. This level of funding for healthcare is greater than previously, and reflects US interests in the oil off Azerbaijan in the Caspian Sea.

The amount of oil is gigantic, and apparently compares favorably with that in the Middle East, and of course is of incalculable value both economically to the region, and geopolitically to the

U.S. The intersection of oil and geopolitics has had fascinating consequences, some of which I will summarize below. I make no pretense of being knowledgeable, so don't be surprised if I make mistakes. Current history of the region begins in 1991 when the former Soviet Union disintegrated.

Armenia and Azerbaijan have been at odds about the region of Nagorno-Karabakh, where both Armenians and Azeris live. There has been a nasty war and an uneasy peace without any resolution. Just recently the president of Armenia, Ter Petrosian, was bold enough to suggest there had to be compromise. He was promptly kicked out of office and a hardliner took his place. Armenians in the U.S. are a cohesive and determined people, and fostered a law several years ago that forbids US aid to go to any governmental institution in Azerbaijan (doesn't cover private institutions). This restriction was observed without question or quibbling until oil was discovered in Azerbaijan, and suddenly US interest changed 180 degrees.

Georgia has had extremely difficult problems since the breakup. Economic chaos, a disastrous first president (Gamsakurdia) who was kicked out of office by force, ethnic warfare within Georgia in Abkhazia, lack of energy and lack of income sources. Abkhazia is a region on the Black Sea which forms 20% or less of Georgia. The Abkhazians came to Georgia several centuries ago, and have always wanted to be an independent country. Joseph Stalin made them an "autonomous republic" within Georgia, and kept things under control by force. In 1991 they declared themselves a country with the overt aid of the Russian military, and killed or ran out the Georgians in the area, about 400,000. During the last year or two there has been a UN-Russian monitored peace, and 50,000 Georgian refugees have returned to their homes in the Gali region of Abkhazia. Georgia was formerly the "California" of the Soviet Union, producing large amounts of vegetables and wine, and the place where the Communist elite had their *dachas* on the Black Sea. The presidency of Eduard Shevardnadze has had a great stabilizing influence, and progress has been slow but steady the last three years. The GNP growth of Georgia for two years has been by far the greatest of the NIS. The *lari* was introduced two years ago, at \$1 = 1.30 lari, and this ratio has been quite steady (started around 1.26, now 1.33 or so). The rate of inflation is quite low. The people are ambitious for their country, smart, determined, sophisticated, charming and personable.

Russia has always had a great interest in the three countries, or republics when they were members of the Soviet Union. They constitute the "near abroad." The Black Sea is important to Russia as a entry to the Mediterranean, and the countries border others, such as Turkey, that are of interest to Russia. The Russian military hate Shevardnadze, considering him principally responsible for the death of the Soviet Union. Russia considers it in her best interests to keep the region destabilized. This policy has intensified since the discovery of oil. A crucial question has been the path of the pipelines required to take the oil from the Caspian Sea (no outlet) to the rest of the world. Whomever has the pipeline(s) will control the oil and will benefit economically to a considerable degree. This benefit will be especially important to Georgia, which has virtually no salable resources such as oil or minerals. Russia and Georgia are the two best choices, and obviously Russia wishes for the oil to run through it. The U.S. clearly would not like for this to happen, for obvious reasons preferring for the pipeline(s) to run through Georgia. A small pipeline through Georgia to the Georgian port Supsa has been agreed upon, and is under construction. The decision about the main pipeline is to be made in July. After that it is a 'done deal.' The recent assassination attempt on Shevardnadze is seen as an attempt to destabilize the region so the pipeline would not go to Georgia.

On this visit there was the sudden eruption of fighting in Abkhazia, between troops from Russia in the Northern Caucasus region, who for some mysterious reasons appeared in Abkhazia, and

Georgians who have returned to the Gali region. Shevardnadze declared his forces would not engage in battle, and he ordered them away from the region of conflict. He said he saw the attack in Abkhazia as an attempt to trick him into declaring war, in which case the west would decide Georgia was too unstable and untrustworthy to have the pipeline. A second big attempt by Russia to push the pipeline in their direction. Shevardnadze made his public statement at the 80th celebration of Tbilisi State University, which I attended (see below). I was quite curious to see the reaction of the Georgian public. In 1992 and 1993 patriotism was white hot, and a similar announcement by Shevardnadze would have probably resulted in a public outcry and massive demonstrations that would have forced him out of office. But this time the Georgians have become wiser, and everyone I talked with said Shevardnadze was smart not to be tricked into war.

Shevardnadze is the key in Georgia. Having failed in two destabilization attempts, the question is whether the Russians will in desperation try something else before the issue becomes a done deal in July.

This digression into Caucasus geopolitics on my part was to show how the region has become important to the US, and consequently money for all purposes is increasing to the region, including healthcare partnerships.

At this point AIHA has responded to the request by AID for a proposal to manage the partnerships in the NIS for the next three years. The odds are highly in favor of AIHA since it is the only NGO that has worked in the partnerships program, and has been hugely successful over the last five years. AIHA will know in a few weeks if they have gotten the contract for the entire NIS, which I estimate to be \$50 million or more for three years. Then they in turn will ask for proposals for partnerships in individual countries, and that is where we with our "Georgia to Georgia" partnership will get involved.

Our proposal will have two parts: (1) Plans for continuing and making sustainable the projects (or "partnerships" in AID parlance) we have had the last five years, and (2) new "partnerships" for the next three years. We have no assurance we will get any funding, but just like AIHA we have been in business here for five years and have a good track record and great relationships with our partners here.

Two weeks ago I made the rounds in Washington with the staffs of our congressmen (Newt, Cynthia McKinney, John Lewis) and the two senators, informing them of what we had been and were doing. We feel they will be quite supportive of a Georgia to Georgia effort. Our efforts got a warm reception from the staffs.

We plan to take our efforts in the country of Georgia and group them under the "umbrella" of a foundation, which will in effect be an NGO in the country of Georgia, calling it the "Georgian Healthcare Partnership" or foundation, or something similar. The members would include the NILC, the Emergency Medical Services (EMS) training center, our nursing and educational projects, and others. We would include in the foundation our partners such as Tbilisi State University, Georgian Technical University, the Ministry of Health, and others. Each member of the foundation would be independent, but be grouped together with respect to certain specified activities. When we started our activities in 1992 there was no need and no legal basis for such an NGO. And our beginning efforts did not merit such a designation. But now we have equipment and success, and the prospects of continued growth. In addition the laws of Georgia have changed, and we are apparently "illegal" at the moment. The equipment was given by and at the moment belongs to US AID, and that has to be taken into consideration. The separate mem-

bers of our partnerships, notably the NILC and EMS, also cherish their independence, and how to keep this but at the same time have the benefits and clout of a large partnership has led to much discussion. A separate issue about a Georgian NGO is that it would be capable of receiving grants from other countries or a variety of organizations, and this will be a great advantage. I think we have about decided how to do this, and Archil says he will send the details in a couple of weeks and I will share them with our US partners and AIHA, for agreement or modification.

One of the principal new initiatives we wish to start is a health education center in each of the twelve health regions of Georgia. We haven't decided what to call them, but something like "Regional Centers for Continuous Education and Healthcare Services." Each one would have the following components:

- Learning Resource Center for Nurses
- Center of the Nursing Association for the region
- NILC satellite, including distance learning facility
- EMS satellite
- Health research center, including informatics and disease surveillance
- Health promotion/preventive medicine center; AIDS and tuberculosis
- Continuous education center for general practitioners and nurses, including the rational use of drugs
- Prosthetics center

Laura Hurt, chief of medical-surgical nursing at Grady, crystallized this concept. We plan to start in Kutaisi, and then begin small nodes in Poti and Kutaisi, later Telavi. Later this week I will go to Kutaisi and we will start planning the first one. Next year there will be only a few of the components above, with each center probably starting with satellites of the NILC and EMS and nursing, and then expanding slowly. In Kutaisi especially the deputy mayor, Dodo Shelia, has many programs which can be situated in the center.

One issue that needs to be met head on for the next funding cycle is the question of a partnership office in Tbilisi, or foundation office if we go that route. We now have such an office, and it has been essential to our success. AID has put into their requested proposal a requirement that AIHA or whomever gets the contract have a regional office in Tbilisi that will manage the activities in all three countries. One view is that this regional office will do all the activities that our partnership office has been doing the last five years, when there was no such regional office.

Archil and I feel very strongly that we need to continue to have a partnership office, with the regional office having two functions: providing resources beyond the capabilities of the partnership office, and monitoring our activities (and the activities of other partnerships, perhaps in Georgia, but certainly in Armenia and Azerbaijan) to make sure we are doing what we are supposed to do. Our office has functions that would be impossible for a regional office to do. The people in Georgia, e.g., Archil and Zviad (NILC) and Dito (EMS) and Lia (Nursing), are deeply networked into government, educational, financial and every other circle in Georgia. A phone call literally gets an audience with the Minister of Health, the Minister of Education, the Foreign Minister, or even President Shevardnadze. Someone from Washington or Moscow would be lucky to get to speak to the lowliest staff member after much negotiation, much less their bosses. Another powerful argument is that a prime purpose of aid is for the local Georgians, Armenians and Azeris to learn to do these things themselves.

I have had a change of mind on this question. When we began our activities in 1992 I argued

strongly with Jim Smith that we needed an American in the office (and we in fact had one, Sheri Carlin, for a year). Jim said the Georgians had to run the office. He was right and I was wrong.

A second issue that has to be met is how to put together our activities in the U.S. Just as in the country of Georgia, our activities in the state of Georgia began in a small fashion, without anyone thinking about the future, but have now reached a point where we need to think of some structure. One reason for the structure is to enable organizations like AIHA and others to give us money. When the partnership began in 1992 it was envisioned as a 'hospital to hospital' partnership, so Grady Hospital was the point where money was put in. "We" include the following in the state of Georgia: Emory University School of Medicine (and Public Health in the past, and perhaps future); Grady Memorial Hospital (or Grady Health System, to use current terminology); Georgia State University; plans for the involvement of Georgia Tech and the LaGrange-Poti-Zugdidi Sister Cities partnership; and Morehouse School of Medicine (in the past and with plans for future involvement). A reason for the consortium is that it is difficult for money to be given to Grady and then go to Georgia State, LaGrange, etc. We are thinking of a consortium similar to the one in the country of Georgia, and that has an Atlanta precedent of a consortium involving Georgia Tech, Emory and (I think) the Medical College of Georgia, that was set up for another specific purpose, telemedicine. We will be exploring this in the next few weeks.

A summary of the plans and activities now and proposed is given on page 2.

We had lunch at a small pastry shop, run by a group of wonderful older women. A group of them was sitting at a small table cracking walnuts for baklava. Very starched, warm, projecting the image of people who know how to make fabulous pastries. Exactly.

Back to work on plans some more. At 5 p.m. David Sheshelidze and I went to the Metechi Palace Hotel (now the Sheraton) to sit on the patio overlooking Tbilisi--one of my favorite places in Tbilisi--and have beer and talk. David is about 32 or so, an MD who is quite knowledgeable about computers, and who for two years has worked in the NILC maintaining the computers, file servers, thinking up new ideas, etc. He told me on my previous visit, in October, that he wanted to make computing a fulltime career. I suggested he go into medical informatics, being perfectly suited for it. Randy Miller, chair of medical informatics at Vanderbilt, has agreed to take him as a master's student. Steve Brown, former faculty member at Emory who took the same path, has been very helpful in getting this set up. This meeting over beer was to make the final plans. My vision is that David will come back and establish the field of medical informatics in the Caucasus region.

Then Archil and I went to the founding meeting of the Rotary Club of Tbilisi. George Kikvadze, the vice president, had visited me in Atlanta a few months ago and invited me. There was a reception in the Metechi, followed by dinner. Various Rotary dignitaries from many countries were present. We hope to work together in the future with Gary Zweifel, a Rotarian in Atlanta whose daughter Ann went to Emory Medical School and came to Tbilisi during April on an elective, and George to get some Rotary funding for various projects.

Monday, May 25th

Another beautiful day. Had breakfast with David Tsanava, a medical student who also works at a law firm. David is the son of Dazmir Tsanava, the chief doctor of the hospital in Zugdidi (the town nearest the Abkhazian fighting). Some years ago I went with the Minister of Health to visit Zugdidi, and was asked to see a patient who had an automobile accident a few days ago,

and was in critical condition. There was a dearth of knowledge about matters such as intake and output and other basic knowledge one needs to know about a critically ill patient. The Minister decided to air evac the patient, Dazmir, to Tbilisi. To my surprise two years later a Georgian came to see me in Atlanta and identified himself as the patient I had seen, and whose life I considered in doubt. David his son goes to one of the fifty private medical schools that have sprung up here since independence, mostly for the purpose of providing money for the faculty. On my visit in October I had gotten David to tell me in detail about his courses. They were horrifying. David wished to come to Emory for a four to six month elective, as we do with the students of Tbilisi State Medical University, the state medical school. I urged David to change and go to a proper medical school, and then perhaps we might think of taking him on an elective. I was disappointed to learn he had not done this. On the other hand, in a few years David might be another good candidate to get a masters in medical informatics, and then return and be a leader here.

Went to the office and met Gia Kurdgelashvili (gia furdGelawvili). He has graduated from Tbilisi State Medical School, and made 88 on Part I of the USMLE (an outstanding score on the basic science test for a foreigner) and 79 on Part II (par for foreigners on the clinical test, since they are simply not taught medicine in terms of modern technology). Works with Archil in a new CT scanner setup. He wishes to apply for internship at Emory next year. I was impressed with him, and suggested he apply to the preliminary and transitional programs, and see me again when I come in the fall.

Went to the celebration of the 80th anniversary of Tbilisi State University, the University of Georgia of the country of Georgia. Huge. 30,000 students, fifteen or more faculties. We are collaborating with them in starting a new nursing school (Judy Wold, Director of Nursing at Georgia State University is doing this), an MBA-MHA program (see above), and a new medical school modeled after US medical schools. A glittering and elaborate occasion. Visiting rectors from all over the world. President Shevardnadze gave the keynote address, making among other things the remarks noted above about Abkhazia. A huge Georgian supra afterwards, with more talks, recognition of notables (including me representing the Atlanta Tbilisi Healthcare Partnership).

A late evening visit to Irina Chanturishvili and her family. Her son Levan, who I will visit in Moscow, lived with me for two years while getting his MBA at Emory. Irina spent four months during that time at Woodruff Medical Library, and is now librarian of the USIA library here. A wonderful human being. Beso, her nephew and Levan's cousin, about 26, works at the tax office here in Georgia. I have arranged for him to be a visiting foreign student at the International Affairs division of Georgia State University during the fall semester. Beso is quite smart, personable and hard working. He is getting his PhD at TSU. He has just finished working with a US consulting group to computerize the tax system of Georgia. The division at GSU has just gotten a \$17 million contract to do the same with Russia. I think they will welcome him with open arms. He will live with me, and I will scrape up some sort of vehicle for him to use. He and I and Irina discussed the details of his visit. He is working now on the application, which I will take on my return.

Tuesday May 26th

Richard Krause and Larry Gage arrived at 6 a.m. this morning on British Airways from London. Dick Krause was our dean for several years in the late eighties. Director of the National Institute of Allergy and Infectious Diseases before coming to us, now a senior scientist with the Fogarty

International Institute of the NIH. He came here with a group when I was here in October to evaluate and make recommendations regarding the biomedical infrastructure in Georgia, and to advise the Minister of Health on its rebuilding. I had arranged for him to be invited to Jordania celebration we are having.

Larry Gage is the Washington lawyer who works with AIHA, and is Executive Director of the National Association of Public Hospitals. Larry is with a firm based in Atlanta. He is a senior partner in Washington. Larry is also here for the Jordania celebration.

I met Arsen Kubataev at breakfast. He is a 32 or so year old Russian physician who is director of the AIHA Moscow office, and will become the director of the Caucasus regional office. We agreed to have a meeting later in the week to discuss Georgia.

Mr. Eduard Leikashvili came to visit me. He is the father of Aka who will be one of our interns in July at Emory. Mr. Leikashvili was head of the wine workers in Georgia during the Soviet Union, and now continues his work in wine. He warmly invited me to come to his home for a supra, and I told him I would try. I like the family a lot, but I am usually invited to about five times as many supras as I can manage when I come.

We went to the Youth Palace for the opening ceremony of the 80th birthday of Georgian independence. The Youth Palace is an impressive 19th century marble building that exemplifies the best of pre-Soviet Georgian architecture. Huge rooms, marbled floors, finely made gold chandeliers, etc. A note about the 80th anniversary celebration. Georgia was conquered by Russia in the 18th century. Before then there had been little relationship with Russia. The question in the mid-eighteenth century was whether to line up with the Muslims (Turkey et al.), or with Christians (Russia). Russia was chosen, and Georgia became a protectorate. A few years later Catherine the Great conveniently forgot about this treaty, and took over Georgia. Georgia continued as a subject of the Tsar until 1918, when she declared independence. Noe Jordania was the first president, and his son Redjeb, a professor of Naval History in New York now, arranged this conference. The communists of course conquered Georgia in 1921, and she remained a republic until 1991.

The opening ceremony this morning featured President Shevardnadze (who didn't come because of Abkhazia), Avto Jorbenadze, the Minister of Health, Kent Brown, first US Ambassador to Georgia, Alex Rondeli, famous professor of political science in Georgia, and a famous Georgian historian. As I was walking up the steps, ten minutes away from the presentations, Amiran Gamkrelidze, Deputy Minister of Health, approached me and said the Minister was still in Zugdidi dealing with casualties, and wished for me to give his presentation! I tried my damndest to get out of it--Amiran was the natural replacement--but to no avail. I consequently hid in a corner and furiously scribbled notes for a "ten minute presentation". Here is what I said:

Ladies and Gentlemen, Minister Jorbenadze is in Zugdidi and regrets his inability to be here. He asked me to present instead. I note Redjeb Jordania has asked two Georgians and two Americans to present. In order not to disturb that careful symmetry let me point out that I too am a Georgian.

I wish to address the Health Sector condition in my remarks. This sector has been a priority of the Georgian government, which recognizes that the well being of the people is essential to the success of the country. Consequently health sector reform was one of the earliest efforts of the government, and it has consistently received strong govern-

mental support. Health reform has in fact moved in concert with the democratization efforts of the government.

The efforts of the international community have been substantial, and include US AID, the World Bank, the European Community of nations, the International Red Cross, a host of non-governmental organizations, and many others. Former US Ambassador Kent Brown, who has just spoken, played a key role. But much needs to be done:

-The amount of money devoted to health should be substantially increased--at least doubled--in order to bring Georgia into line with the spending on healthcare in comparable countries.

-Each citizen must be guaranteed a minimum and reasonable package of benefits, with an early emphasis on women and children.

-Systems must be put into place in the health sector

-There are too many health care workers--especially physicians--and they are not well trained

-There is an excess of health care facilities--especially hospitals--and they are of poor design. Virtually all of them need to be destroyed and new buildings constructed.

-There are too many medical schools, and their curricula are ancient

-There is too little technology, and much of it is *circa* US 1950's

-Infectious diseases, especially tuberculosis and AIDS, need immediate attention.

-Preventive health care and lifestyle issues must be addressed, particularly smoking, automobile trauma and the use of illicit drugs in the young.

-Primary care medicine must be recognized and emphasized

-A network of modern national hospitals in the major cities must be established in order to give modern care for acute illnesses and trauma.

These are daunting challenges, but the Georgian people are up to it. A favorite place of mine in Georgia is the tomb of King David in Gelati. His tomb lies at the entrance to Gelati, the famous academy he founded in the twelfth century. To enter the courtyard visitors must step on his tomb. The inscription exemplifies in my mind the Georgian approach to challenges. "Once I owned everything. Now I only possess this small piece of earth. But everyone who seeks knowledge must step over my body."

**Remarks at the opening ceremony of the celebration
of the 80th anniversary of the declaration of
Georgian independence**

Archil, Kent Brown, Zviad, Larry Gage and I had lunch. A good discussion about the current realities in Georgia. Then we met for two hours with Amiran Gamkrelidze, the Deputy Minister of Health, and reviewed with him our plans for the next three years. We had given him a 23

page draft we put together in February. He and the Minister and their colleagues had reviewed this draft in detail, and agreed with it. The Minister had also had a meeting with other organizations and asked them to think about how they might work together with us to accomplish the plans.

That night Archil and I went to a dinner given by Roin Metrevelli, rector of TSU, in a restaurant in the Ethnographic Museum of Tbilisi. This is a large park that has replicas of Georgian houses from each of the regions, and many items of historical interest. Huge. It is on a hill overlooking Tbilisi, and has an outstanding view, especially as the sun sets over Tbilisi and the lights begin to come on. About 30 people were present, most of them foreign academic dignitaries who had attended the celebration the day before. I sat across from Phil Kohl, professor of anthropology at Wellesley and Director of the International Program for Anthropological Research in the Caucasus. He has a project in Dagastan, but political instability is threatening resumption this summer. We had a fascinating discussion about anthropology, especially with respect to Georgia. Another example of the compelling people one meets in this business.

Wednesday, May 27th

Breakfast with Bahuti. About 30 years old, graduate of Tbilisi State Medical University, works now with the World Bank project in health. Has been accepted for his MPH at Harvard, and will leave shortly. Debra Smith, a preventive medicine fellow in the Public Health School at Emory, breezed through. She has been here three months now, and is about to return to Emory. Has worked with the World Bank, and now with a project in South Ossetia. This region of Georgia was also an autonomous republic, just like Abkhazia, and has had to a lesser degree some of the same problems about wanting to be separate. I gather that is mostly settled with various compromises now.

I met Ron Suny, also staying at Betsy's. He is well known to me as the author of the best book on Georgian history. Turns out he has written other interesting books, such as *The Soviet Experiment* and *Revenge of the Past*. He says the latter is about ethnic conflicts in general. With such a title I must read it. He is an Armenian who grew up in the U.S. His father was in Tbilisi when the Bolsheviks took over in 1921. A constant story during Ron's childhood was this event, and he became interested in Georgia, leading to the book. Speaks excellent Georgian. Professor at University of Chicago.

Went to the Health Sector portion of the Jordania Anniversary celebration. Dick Krause gave the keynote address: "The Imperatives of Excellence in Medical Research: A Euro-American Tradition." An outstanding talk, replete with classical allusions and studded with relevant facts. A demographer (Soviet invention; near as I can tell epidemiologist is similar in US, but there are major differences) gave a talk. I spoke about healthcare issues. Since I had been negative the day before, I decided to couch what I had to say in positive terms today:

The healthcare sector in Georgia today presents splendid opportunities. Picture Picasso standing in front of a blank canvas, and you see the possibilities in front of you. Let me give you a list of seven areas that I have chosen as examples of the opportunities:

1. Physician and nurse education

- Opportunity to find out how to re-educate practicing physicians & nurses
- Opportunity to devise new ways to get significant numbers of physicians to the U.S. for graduate education, and then entice them to return.

2. How to renovate ancient healthcare facilities so efficient healthcare delivery can be accomplished.
3. Conceive new ways of delivering the latest knowledge and techniques to rural areas and mountains.
4. How to obtain the best and most cost efficient new technology
5. Creation of a comprehensive system of primary care
6. Devise new and better ways of changing life styles for trauma, smoking & illicit drug use.
7. How to construct a new system of healthcare financing, and solve the challenge of getting more money into the sector.

These opportunities present substantial challenges. Georgia has made progress, and more must be made rapidly in order to give the population good health care.

Remarks during the Health Sector Portion of the Jordania Conference

At lunch Giorgi Katsitadze came by to see me, and proudly gave me a handbook of pediatric information he has just published. Giorgi was a student with us for six months about two years ago, and is just finishing medical school. He has completed USMLE I and II with excellent scores, and wishes to come to Emory next year in pediatrics. His book has several sections: antibiotic sensitivities; common laboratory tests; common drugs with dosages. All of it modern information, and otherwise unaccessible in Georgia. Giorgi is smart, personable, hardworking and ambitious. I will do everything I can to help him next year.

Rima Beriashvili came up during a break. She is a professor of pathology at TMSU who spent two months with Whit Sewell at Emory in 1993. She works with the students who come to Emory for a few months during their junior year. Four are at Emory now, and we had agreed to take two more. This is something I need to decide about on my return, and I told her we would talk later.

I spoke with David Tvildiani. He has a private medical school here, the best of the lot: Ayety. He brought ten students to Washington, DC, to the astonishment of the people at the Fogarty, during March, wanting help finding them residencies. I am not sure whether or not any of them found positions. Being a foreign medical graduate and getting into a position in the US has suddenly become even more difficult. Everyone from now on has to take a clinical part of the USMLE, where they must come to Philadelphia and demonstrate their bedside skills. I suspect the number of applicants will decline, perhaps by as much as 90%.

Archil and I went to Georgian Technical University and met with Ramaz Khurodze, the Rector, and a favorite of mine. Smart, able, no bull. We talked about the MBA program, which will be anchored at GTU; he will make sure all the questions are settled. Then a talk about Brian Hage's father. Brian (aka Toby) is the Department of Medicine administrator at Grady. His father goes all over the world selling rebuilt airplane turbine engines as electricity generators. There is a proposed \$80 million project with Tbilisi, and Mr. Hage wanted me to look into whether he could get sufficient financial guarantees to think about proceeding with the project. Ramaz said that

amount of money would require Parliament approval, as well as the IMF and the World Bank. Archil will look into what is happening with this process with the head of the parliamentary committee on energy, who lives next to him.

A final discussion about the Georgia Tech Lorraine project. In January Ramaz came to Metz, France, and met with Teddy Püttgen (President of Ga. Tech Lorraine and vice chair of Electrical Engineering at Ga. Tech Atlanta) and me, who flew over from Atlanta. Georgia Tech in Atlanta has a branch in a technology research park in Lorraine. I quote from the report we wrote about the purpose and function of Georgia Tech Lorraine:

Georgia Tech Lorraine, GTL, is the European platform of the Georgia Institute of Technology. GTL was launched in 1990 within the framework of the sistership agreement between the Region of Lorraine and the State of Georgia. GTL is a nonprofit organization incorporated and operated under French law. All educational and research activities pursued at Georgia Tech Lorraine are the direct responsibility of the Georgia Institute of Technology. The three main activities of GTL are: degree granting education primarily focused at the Master of Science and PhD levels; research and development; and continuing education.

Presently these activities are principally in Electrical and Computer Engineering (Digital Signal Processing, Telecommunications and Optics, as well as Systems and Controls), and Mechanical Engineering (Acoustics Manufacturing Systems, System Controls). A significant characteristic of the academic programs offered at Georgia Tech Lorraine is that they lead to the original degrees being awarded by the Georgia Institute of Technology; therefore, all admission and graduation requirements are identical to those enforced on the Atlanta campus of the Georgia Institute of Technology. In addition, the students at GTL have the option to pursue selected double degree programs in close collaboration with European universities. SUPELEC, a leading French *Grande Ecole* of Electrical and Computer Engineering and ENSAM, a leading French *Grande Ecole* in Mechanical and Industrial Engineering, are examples of such collaborations. Research activities play an important role at GTL, specifically in view of the main educational emphasis on graduate level degrees. An example of collaborative research activities is the creation of a joint research laboratory at GTL with the *Centre National de la Recherche Scientifique* (CNRS) of France. There are also collaborations with industry. E.g., Daewoo Electronics, of Korea, has created its European research center on the campus of GTL.

The French legal status of GTL greatly facilitates the creation of collaborative endeavors with European and North American industry and academia.

Georgia Tech Atlanta faculty are assigned to GTL for varying periods of time. The faculty and their families reside in housing built for this purpose. In addition, there is a highly developed component of distance learning

activity between the Atlanta and Metz campuses.

A fundamental assumption on which the concept of GTL is based is that the notion of a global market is no longer an abstract idea; it has become a reality. This market must be faced and leveraged by industry as well as academia. Increasingly fast and reliable transportation and communication capabilities are erasing the economic and commercial borders not only between countries but also between continents. In this rapidly evolving environment, it becomes critical that the private and public sectors have access to engineers, scientists and managers who not only react to the needs of the global market but who also embrace the emerging challenges it faces.

A dream of mine has been to get a similar branch in Tbilisi. Teddy Püttgen has suggested we begin with a strategic plan for Georgia, and again I quote from our document:

Sustainable development of Georgia at this time requires the sustained development of three key sectors: electric energy generation, distribution and end-use; telecommunications; and informatics. Since Georgia does not have any significant raw energy sources other than hydroelectric power, economic development is likely to primarily come from the manufacturing and service sectors of the economy. The availability of reliable and high quality electric energy supply is a necessity for such economic development. The strategic location of Georgia at the crossroads between Europe and Asia provides strong opportunities for trade and commerce which can be leveraged only through the availability of modern and reliable telecommunication and informatics infrastructure.....

The purpose of the Metz meeting was to explore the possibilities of sustained collaborative ventures between the Georgia Institute of Technology in Atlanta and the Georgian Technical University in Tbilisi by way of Georgia Tech Lorraine.

A strategic plan targeted at the active participation of university level engineering education and research in the sustained development of the three industrial sectors of electrical energy, telecommunications and informatics is desirable to outline the roles of government, industry and education in the short term and long range development of Georgia. Of particular importance is the attraction of foreign industrial investment in Georgia to solidify and expand the local infrastructure. In addition, the integration of advanced engineering education and research needs to be formalized within the context of the industrial development process.

The end result of the proposed effort would be a strategic plan for the proactive role of advanced engineering education and applied research in each of the three industrial sectors mentioned above. The strategic plan would consist of:

- Key/strategic objectives
- Local situation
- Justification
- Implementation
- Specific goals and schedules
- Means required
- Technological, professional, and financial resources required

Ramaz at this moment needs to make a concrete proposal of the next step that must be taken, and he promised me he would fax such a proposal to Teddy and me next week. We estimate we need to form a committee to work out the plan, and about \$200,000 or so will be needed.

I went to the Metechi and met on the patio with three students I have gotten to know. Dato Kuprashvili, who came to Atlanta for four months; he has decided medicine has no future for him in Tbilisi, and plans to go into computing. His friends Nick and Andrew are just graduating from medical school, and Andrew in particular wants to come to the U.S. I told him he could do a two month clinical observership at Grady in preparation for the clinical skills part of the USMLE if he wished.

To the boat terminal on the Mktvari river, where Tengiz of the AIDS Institute had arranged a gala evening with Dick Krause, Larry Gage, Archil, me and his team. A houseboat that has a Georgian dinner, music and dancing. A great time was had by all.

George Keshelava and Nick Lazariashvili were waiting me when I came back to Betsy's at midnight. Both have been to Emory as students. Nick will be an intern with us in July; made 91 on Part I of the USMLE, which is an outstanding score for a foreign medical graduate. George has been planning to go into surgery, but to my surprise told me tonight he has given up on that idea, since getting into surgery programs in the US as a foreign graduate is exceedingly difficult. He now wants to come to Emory in medicine next year. I told him we would talk about that when I return later this year, and meanwhile for him to apply to the transitional and preliminary programs.

Thursday May 28th

Breakfast with Archil and Dito, an emergency medicine physician who is the head of the Emergency Medical Services training center. We talked about EMS plans for the next year:

- Satellites in: 1. Zugdidi; 2. Kutaisi; 3. Telavi
- Equipment update
- Trip by Gail Anderson
- Externship in US or Ireland by Dito

Archil and Dito left, and I continued breakfast with Arsen Kubataev, slated to become AIHA's director of the Caucasus office. We had a long discussion about the roles of the AIHA office and the partnership office.

A visit to Tbilisi State University and meeting with the rector, Roin Metrevelli, and provost, Temur Khurodze. We talked about the MBA program and the nursing school that Judy Wold is working with. They are enthusiastic, and all of us agreed we are satisfied with the results.

Then a sticky subject, the new medical school, modeled after Emory, that we have been working on for two plus years now, without much progress except some contention amongst the people on the project. There is currently an old type of medical school, that is securely lodged in the Biological faculty. This faculty is notable for what Alex Aladashvili, the person who initially tried to work out the project, calls "the old mentality." A lot of struggles about authority and responsibility, none of it settled satisfactorily. I told the two of them I felt like a gynecologist with a woman who was early in her pregnancy, and I couldn't tell if the fetus was alive or dead. My dilemma, I said, was whether to do an abortion and settle the uncertainty, or to wait longer and see if anything happened. They appreciated this in a wry way, since it pretty much cut to the bone. They said I must not give up hope. The Minister has given them 50,000 lari to make plans, and they are *determined* to have it. We shall see.

To the NILC and a meeting with Shota Vashakidze, a mathematician who works on networks for AT & T in New Jersey. He had come up to me at the Jordania opening and asked to have a meeting. He works with the Friends of Georgia and the Georgian Association in the US, and wanted to explore joint projects in education. I told him our thrusts, and he will think whether we can work together on any projects.

A meeting with Paata Kervalishvili, of the State Department for Science and Technology. A physicist who was a big deal at the Russian space technology center during the days of the Soviet Union. I take it he is something like the Science Advisor to President Shevardnadze. Talked about an hour. He talks quite well. I told him about the Ga. Tech Lorraine project (fantasy), and he said he had heard about it. I urged him to support the idea.

Lunch, then a meeting with George Turkia again, and George Gaganidze, vice rector of the Tbilisi State Institute of Economic Relations. I sent this email to Bijan Fazlollahi, the professor at Georgia State University who heads the MBA project, after the meeting:

Bijan, I met with George Turkia and George Gaganidze of TSER. We discussed TSER's concerns and Eurasia's concerns. They suggested a good way out of the rotating dean problem was to have a dean from GSU. In fact, they were wildly enthusiastic about this idea. Said it would be wonderful publicity for the program, and also would ensure that no mistakes were made (they didn't have too much confidence in any Georgian dean doing the right things; brought up some errors by the Georgian head of the Public Administration Institute). There would a deputy dean from each school who would do all the work. You or your dean wouldn't be expected to stay here all the time. Could even be a rotating job. They are thinking of this for a couple of years until things settle down.

All of them are now going to have a series of discussions about what to actually send to you. The GSU deanship idea may or may not be what they suggest. I am just telling you the substance of the conversation.

There is no question all of them, including TSER, very much want to have your MBA program, and will do virtually anything to get it. I personally think the idea of a GSU dean is a very good idea.

I liked George Turkia a lot, and also the TSER man.

Looking forward to talking with you on your return <Bijan is leaving the US for a few

days>.

To the US Embassy where I had additional pages for visas inserted into my passport. I have used up all the ones that came with it.

A visit to Frydon Todua's hospital. He is a radiologist, and another one of my favorites. About fifty, has put together the hospital with the most modern diagnostic equipment in Tbilisi: MRI, CT scanners, Dopplers, etc. Getting digital angiography machine. Bill Casarella and Crawford Long Hospital of Emory gave him a mammography machine, and he uses it extensively. Hank Schoolman of the National Library of Medicine called me one day a year ago, and offered to give to the partnership the teaching files of the American Association of Radiology. The Association had put them on CD ROM, and did not need the actual films anymore. We sent them to Todua, and he told me today of the sheer ecstasy he has had with them. Every day at their "morning report" several films are presented and discussed: "Even I find many interesting things on them." He has been setting up examinations for credentialing of radiologists in Georgia, and he will use the films for this purpose. One problem is that the cabinet with the CT scans did not arrive. We sent it later, and God only knows where it is. I will try to get the CD ROMs for him on my return.

Frydon will issue an invitation to Bill Casarella and Kay to come over in the fall. Srin Mukundan, Perry Sprawls and Bill have been working with Frydon on setting up a radiology residency. I hope Bill can come. Bill came one time, in December 1992, for the second visit of our partnership to Tbilisi. No electricity, downtown shoddy hotel, machine guns going off all night, and so on. But Bill wrote a paper about radiology in Georgia at that time, and has been quite interested and very supportive. Bill has a lot of vision about the importance and possibilities of these sorts of collaborations.

I told Frydon about Natia Esiashvili. She spent some time as a student with us, and applied for a neurology position in this year's match, which she did not get. She came to Atlanta for Match Day. At Emory Larry Davis of Radiation Oncology had an unfilled position, and I suggested to her that she consider taking it, since there are no modern trained radiation therapists in Georgia. She decided to do that, and will be a transitional intern with us in July before going next year with Larry. Natia is very smart and mature, and will do superbly. I suggested to Frydon (and later to Natia) that they get together, and make tentative arrangements for her return in several years to work with him.

Archil and I had a drink with Kent Brown, the former ambassador, and good friend, who is now with RJ Reynolds tobacco company. We discussed the possibility of some support from them for the partnership in the future.

To a Georgian supra at the home of George Danelia and Natia, to which the other Georgians who will be interns with us were invited. All who were in Tbilisi came, and we had a good time. I made some points about them being the best interns we would have this coming year, and about beginning to study now for the in-service examination we give in January. Never too early to emphasize studying.

Friday, May 29th

Got up and left at 7 a.m. with Archil, Zviad and Lia Mamaladze (Nursing coordinator) for a 3 and one-half hour trip to Kutaisi. Road much better most of way than has been in past, but some really bad spots. In new South Korean minivan that has no shocks, and basically no

springs. Worse than riding my horse Bill (had him 34 years; may he rest in peace) at a trot. Sore all over the next day.

Raining constantly. Apparently has rained for almost two months most days. When we arrived at Kutaisi visited the Mayor and Dodo Shelia. She is a gynecologist and the deputy mayor, and head of the health care sector of the province. They want us to start a regional center there as part of our new plans for next year. Archil had cannily asked Temur, the governor and power of the region, if he would support this. We had seen Temur for five minutes at the end of the TSU celebration. Temur said yes, and that is like shaking hands with an old Southerner. Done deal. Temur is about 47 or so. A rising star in the young Communists when the Soviet Union ended. Rapidly adapted to the new circumstances, and is outstanding. I have met him on many occasions, and like him a lot.

Kutaisi is the second largest city in Georgia, about two-thirds or a bit more of the way between Tbilisi and the Black Sea. Very ancient city--like 3000 years or so of continual inhabitation. Metropolitan area 1-1.5 million. Used to have many factories, especially a large automobile factory. Now of course they are all mostly quiet. But Temur has been attracting new projects and money. Quiet, neat, clean city.

Dodo took us to her statistics center. About five Pentium computers, people busily entering data. Then she described her programs for the city and the region:

-A "Nurse Communicator" program, or "Health Prevention in Communities." There is a nurse in every small village who has been contracted by Dodo. The nurse gets paid when he or she turns in statistical forms (births, deaths, maternal deaths, vaccinations, diarrhea cases, etc.). The nurse is primarily in charge of women and children's health. Basically, said Dodo, the nurse is a "nurse communicator."

-In each village the school teacher sets up a Health Committee. The teacher organizes the community leaders into this committee. There are 11 rayons (like counties) in the province. 131 ambulatory clinics. Each of the communities has about 2,500 people.

-Dodo publishes a newspaper, *Health*, which is given free to high schools.

-Kutaisi has 43 schools, and Dodo has a chief nurse in each one, who is responsible for seeing to the health of the students, including vaccinations, fitness for sports, and so forth.

Now there are 195 of the contract nurses described above. In 60 of the clinics there are MDs; in others nurses provide all the care. Dodo has a job description for the nurse communicator, which she gave me in Georgian and I will get translated.

Here is a list of all Dodo's programs, proposed and implemented:

- 1. Nurse Communicator. Implemented
- 2. School monitoring by chief nurse. Implemented
- 3. Women's health program for newly weds. Implemented.
- 4. Physical status of school children, especially those engaging in sports. Implemented.
- 5. Community health management. General practitioners. Implemented
- 6. Pre-school evaluation of children. September 1998.
- 7.. Family planning. Date not set.
- 8. Family doctor program. Date not set.

I got the description for each program in Georgian, and will have all of them translated in the next week or two. Most of the programs are nurse-based, and thus are ideal candidates for our nursing initiatives.

We then visited two sites that Dodo would give us for the regional center. We chose eighteen rooms, or a complete floor, of a hospital Dodo “owns” that is no longer used. An absolutely fabulous space for all our plans. We agreed the center would contain the following:

- 1. Satellite of the NILC. Zviad’s parents live here, and he can be counted upon to do a bang-up job.
- 2. Nursing: Dodo wants “nurses to be information carriers.” She wants training, courses, booklets, bulletins, posters, the nursing association, etc.
- 3. EMS: a disaster center is already open. They need training. Also wants to start courses for high school students.
- 4. Health promotion
- 5. Healthcare management

We came up with our plan for putting together the proposal for next year’s budget:

- 1. Email with someone fluent in English. So there can be constant communication.
- 2. One responsible person for getting all the pieces together and doing the writing.
- 3. A working group consisting of the following: Financial person; computer PhD type; nurse; EMS person; women’s issues person; neonatology; health research-statistics; health promotion; community leader.
- 4. Organization of the proposal:
 - a. Infrastructure: wiring, sewage, renovation, etc.
 - b. Layout of the center; who inhabits what
 - c. Components:
 - 1. NILC
 - 2. EMS
 - 3. Nursing
 - 4. Future programs: health promotion; women and children; others
 - 5. Each component to include:
 - Goals and objectives
 - Analysis of current situation/background/justification
 - Description of the component
 - Staffing
 - Equipment & office supplies
 - Trips to US and US to Tbilisi
 - Evaluation component: before and after
 - Budget

We left the meeting exhausted and exhilarated, and went to have a Georgian supra hosted by Dodo. Then leave-taking. Zviad insisted we had to go by the home of his parents. Surprise! Another supra laid out. Another five pounds. Then the long and bumpy ride back to Tbilisi, arriving at midnight.

Saturday, June 30th

Breakfast with a new arrival from LaGrange, Georgia, Art Holbrook. He has had a

phenomenally successful partnership for several years: the LaGrange-Poti-Zugdidi Sister Cities program. Art has cemented relations with the mayors of both cities, and has brought physicians and nurses to LaGrange for training. Each year large numbers of people from LaGrange visit Poti, taking all sorts of supplies. The mayors of all three cities work together closely. A hospital in Poti and one in Zugdidi has been chosen as the recipient of equipment, and Art has brought the chief doctors of each (the one in Zugdidi is Dazmir Tsanava) to LaGrange for training. They have designed the renovation of the hospitals. I have mentioned previously the political and strategic importance of Zugdidi: it is the largest town near the Abkhazian fighting.

We hope to help Art with his project in various ways. E.g., to set up satellites of the NILC and EMS in each city, the beginning of a regional center.

Art brought along Bob Morris, a colonel in the military, who is involved in an NGO called Partners International Foundation. Bob is quite knowledgeable about computers, and will be able to help a lot with the NILC satellites in Poti and Zugdidi. We took both of them to the NILC and had a discussion about future plans.

Guram Kiknadze and Givi Javashvili met me at the NILC. They are consultants to parliament on healthcare laws. Guram gave an outstanding talk about the new laws at the Jordania meeting. They are MDPHs, and not lawyers. An Emory medical student, Peter Lichty, is going to spend a month this summer with Archil in Tbilisi, helping Guram and Givi. Peter, a rising junior, is a graduate of Vanderbilt law school who practiced several years before coming to medical school. Peter, Archil and I are quite excited about his visit. Guram gave me some information to carry to Peter about resources they need. They have prepared the following laws,

- Healthcare Law of Georgia
- Law on Organ and Tissue Transplantation
- Law on Citizens' Rights in Healthcare
- Law on Promotion and Protection of Infants Natural Feeding and Controlled Use of Artificial Feeding Products
- President's Decree on Promotion of Citizens' Rights inn Healthcare

Being prepared: Law on Biomedical Research in Human Subjects

To be prepared:

- Law on Medical Activity
- Law on Professional Responsibility of Medical Personnel
- Law on Drug Abuse
- Law on Nurse Practitioners

Supposed to be prepared:

- Research on Human Genome and Human Reproductive Cloning
- Artificial Fertilization

Georgia is starting a new democratic society from scratch!

I went and visited the young man who was found comatose. He was clearly more responsive, but his lung picture had not changed. I am quite worried about his prognosis.

I met with Temur Kobidze of the Poison Center. Loren Garetson, of Emory pediatrics, has been

over and worked to set up a modern poison center. Loren has given me a proposal, and we will include it in our new plans.

Then I went to the Institute of Neurology to see another young man I had been asked to consult on. Eighteen or thereabouts, son of a wealthy textile manufacturer. Second year medical student. Some years ago had been kidnapped, and his father paid a ransom. Speaks excellent English. Two months ago he was shot in the neck by the son of the police chief (former KGB chief) in a nightclub. A melee ensued, and the police chief's son was killed. The textile manufacturer's son was taken to the American Hospital in Turkey, and brought to the Neurology Institute two or so weeks ago. He had an almost total C₅₋₆ lesion, with some little use of both shoulders and slight use of left hand. Sensation and motor lost otherwise. Large sacral decubitus, which I insisted be undressed so I could see how deep it was. Not to the bone, and a lot of granulation tissue. To my distress (and his family's) it turned out he needed cleaning badly. Decubiti in several other (and to me peculiar) places, such as the tip of one scapula. Suprapubic catheter. Said to have nothing but pus in urine when brought over from Turkey, and placed on antibiotics. Did not look systemically ill to me at the moment.

Shown the MRI, which shows cystic infarction at C₅ level. The neurologists hypothesized the vertebral artery had been cut by the bullet, which did not directly damage the spinal cord. Or perhaps their was dissection of the artery.

The father was clearly quite angry with the son's care, and several shouting matches occurred between him and the physicians. I finally took over the discussion and said he could be helped a lot in the US, such as at the Shepherd Spinal Center in Atlanta, but it would probably cost in the neighborhood of \$100,000. I had carefully found out before I agreed to see the patient that this would be a possibility for this particular family. I had guessed this would be my recommendation, and I had no intention of being put in the situation of giving such a recommendation to a family that couldn't possibly afford it.

I was given his MRI and a (Georgian) summary of his findings, to go back to Atlanta and see what the people at Shepherd think.

Archil and I had lunch at the new London restaurant. Elegant. I asked Archil's advice about how to go about telling some Georgians about some of their people we deal with. Their people have strengths and weaknesses, like everybody. I proposed to tell their superiors both. Archil said there was a parable about white and black threads. Tell people good and bad (white and black threads), and in the retelling they will ignore the good (white threads) and only keep the bad (black threads), thereby making the teller out to have a unremittingly bad opinion. I decided to take his advice and stay away from mixing good and bad evaluations of individuals. From now on whenever I tell a house officer or student their strengths and weaknesses, I will have a visual image of a fabric with a mixture of white and black threads, and know the retelling will have only the black!

It was five o'clock, and I had a series of six meetings:

- Irina Chanturishvili, Levan's mother, on the Metechi patio, to talk about things in general and her family in particular.
- Saba Bezhanishvili, who is studying for his USMLE I (passed II with good marks), and who wishes to be a neurologist. Came to Emory as a student
- George Kvesitadze, professor of biochemistry in the Plant Biochemistry Institute, who wants my help to interest pharmaceutical houses in the medicinal

potential of plants in Georgia.

- Dato Kavtaradze, who will be one of our interns in July, and who wished to inquire about housing and the like
- George Keshlava, the student who has decided not to be a surgeon, and who wanted to discuss applying.
- George Danelia, the husband of Natia who will be our intern, who wanted to discuss what he might do when he comes to Atlanta with Natia.

Then I had dinner with Archil and his seventeen year old son, Sergo. He is tall, smart, personable and handsome. I have tried to get him into our profession, without success. We talked at some length about what he might do next year when he finishes high school. Archil wishes him to go to college. A four year college education before professional school doesn't exist in Georgia (or elsewhere in Europe, I think). One goes immediately to professional school. I suggested doing everything possible to get him into an excellent US university, then law school.

Home to Betsy's.

Sunday May 31st

Up early, breakfast, and packing. Zviad and David Sheshelidze kept me company while I packed and we discussed David's imminent trip to the US and Vanderbilt. To the airport and flight on Georgian Airlines to Moscow; 2 hours and 15 minutes. Business class. Costs a few dollars more, and is the equivalent of coach on US airlines. Coach over here is not described easily, but bad. Met by Levan in Moscow, and to his apartment and then out to dinner.

Monday June 1st

Spent today admiring Shio Irakly, Levan's eight month old son. Born when I was here in October, and I helped Levan take Mother and son home. Handsome, alert, bright. Finally got email connected (phone is pulse, and it took me an hour to figure this out). Worked on this report.

Long walk around Patriarch's Pond with Levan and his family in the evening. Sun is up until almost eleven o'clock, then comes up again around six in the morning. Dinner at the Radisson.

Levan's company is an investment bank--Aton, the fourth largest in Russia. He has many exciting deals on the table, and works harder than an intern. Leaves early, comes home usually 11 p.m., his wife says. Keeps his ear to the ground about Russian politics. Has heard the reason Yeltsin fired the Prime Minister a few weeks ago (Chermodyn) is that they got drunk together and had a big argument, probably about something piddling. So Yeltsin fired him. Impulsivity at its best.

Tuesday June 2nd

Awakened this morning to Moscow version of rooster and mocking bird: constant sound (all day) of car burglar alarms. Not necessarily because of attempted burglary. I was near one empty old car whose alarm suddenly went off. In five or ten minutes it was silent. Worked on report most of day. Leaving tomorrow for Atlanta. A restful and productive time in Moscow.

Wednesday June 3rd: to Atlanta at 1:30 p.m.

