

PD-AAW-894
57489

U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT

Southern Italy Earthquake Reconstruction Program

PD-Ann-294

1976 - 1982
EARTHQUAKE RECONSTRUCTION
FRIULI, ITALY

FIVE YEARS AFTER
LESSONS LEARNED
MAY, 1987

Hugh L. Dwelley
USAID Representative
Naples, June, 1987

- 1 -

FRIULI, FIVE YEARS AFTER
LESSONS LEARNED

Introduction.

From 1976 to 1982, the U.S. Agency for International Development constructed a total of 14 schools and 7 homes for the aged in earthquake devastated towns in the Friuli Region of Northern Italy. In 1982, AID began a similar program of schools construction following a major earthquake in an area south of Naples.

From May 26 through 29, 1987, the U.S. AID Representative for Italy Hugh L. Dwelley and Mr. Tullio Biagini visited all fourteen schools and four of the homes for the aged in the Friuli Region. All of the facilities had been in operation for at least five years and some for as many as nine. The visits were entirely unannounced and the purpose was to determine the condition and the utilization of the buildings. We also wished to compare the quality of construction between the northern and the southern programs and to see what lessons could be learned and, perhaps, still applied as the program in the South nears completion. Mr. Biagini had significant roles in both the northern and southern programs and thus was able to be of major assistance to the AIDREP in understanding relative conditions and circumstances between the programs. His assistance is acknowledged and greatly appreciated.

The final stop of our survey was for an hour-long visit with Mr. Dario Valvasori, President of Pordenone Province and also with the long-time Secretary General of the Province. We informed them of our observations as we visited the schools. They confirmed our views and expressed special concern that the Center for the Aged in Pordenone must be better financed and run. Mr. Valvasori also believes that the Schools Reform Act will be fully implemented eventually thus making better use of dining and some other facilities that AID included for full day schooling.

At the conclusion of the meeting, I asked Mr. Valvasori what he would have the U.S. do differently if we had the program to do over again? He replied that, at first, it had seemed that some of the AID-schools were overdone, etc. However, that has not proved to be the case and these modern facilities have served as a significant stimulus for improving education and care for the aged in the region. He said that, seriously, he would recommend nothing different.

Summary of Lessons Learned

1. Little advantage was gained from use of the Alpini, an Italian veteran's organization, as an intermediary for contracting in the Northern program. Participants agree that AID direct contracting in the Southern program has been operationally more efficient and effective.
2. Homes for the aged appear to be as needed and, once completed, as well utilized as schools. Ultimate operating responsibility and resources should be determined in advance in either case.
3. Steel or reinforced concrete faced with brick seems to be the best appearing and least troublesome construction material.
4. It would seem wise to avoid construction with pressed chipboard. (The Regione President, a construction engineer, agreed but said that chipboard is okay if used only above ground level - if it comes into contact with the foundation, it will absorb moisture.)
5. Facing with brick or tile requires less maintenance than with plaster.
6. Review carefully any requests to include kitchen and dining facilities. They are little likely to be used above the elementary level. Leave the furnishing of kitchen and dining equipment to the local authorities.
7. It is also better that labs and shops be furnished by local authorities. There was clear evidence that the resources to do so can be found if the community wishes.

8. Review requests for libraries carefully. There are few funds and apparently little interest in stocking and staffing them.
9. Gymnasiums and multi-purpose areas should not have panelled ceilings, lights or heating units that can be damaged by thrown balls, etc.
10. All, repeat ALL, external doors should open out even if this exceeds local safety standards at the moment. All auditoriums should have large exit doors opening to the outdoors - not only into corridors.
11. All stairways should be wide and no decorative glass panels used on stairways or balconies.
12. All balcony and terrace railings should be vertical - not horizontal - to prevent children from climbing them.
13. If flat roofs must be used, give careful attention to waterproofing. Copper roofing appears to be best although initially expensive.
15. Shrubs should not be provided by AID. If local authorities provide them, there is more chance they will be cared for.

Observations: The individual projects visited and our observations are set forth below.

1. SACILE six miles West of Pordenone. Dedicated in 1981 and fully completed in the summer of 1982 at a total AID cost of \$ 3.9 million.

This is a large technical school with 31 classrooms designed to accommodate approximately 600 students. At the time of our visit, the school was in full use with 677 students registered. The building appeared in good condition with no significant leaks or problems with the heating plant reported. The gymnasium is being fully used. However, the kitchen and dining space has been converted to classrooms and the library is little used and not well stocked. The landscaping planted by AID has not been maintained.

2. AVIANO about 7 miles north of Pordenone. Completed in 1981 at a total AID cost of \$630,569.

This elementary school contains 7 classrooms and was designed to accommodate 125 students. About 100 students were in attendance and one classroom is being used as a mini-gymnasium. The kitchen and dining facilities were in full use. The building appeared well maintained. The heating system (a heat pump) was reported to be inadequate. Teachers expressed a wish that the school had a proper gymnasium.

3. PORDENONE. Home for the aged, completed in 1981 at a total cost to AID of \$ 2.5 million.

This facility was designed for 50 persons in fully furnished family apartments and single rooms. Twenty-eight families were in residence at the time of our visit and there was only one vacant unit. The building appeared clean and well operated. However, the dining area has been converted to a well stocked library and the kitchen is unused. We were told that most of the residents prefer to prepare their food in their own apartments. It was not clear how the others are fed, however. (In a subsequent conversation, the President of the Pordenone Senior Citizens Association expressed great appreciation for the center but some dissatisfaction with its current management and an intent to correct it. He only wished that the Center had larger capacity.)

4. MANIAGO eighteen miles north of Pordenone. Technical College completed in 1982 and dedicated by Congressman Mazzoli in 1983 at a total cost to AID of \$ 2.3 million.

This school was built as a technical college with 19 classrooms plus laboratories, an auditorium, a gymnasium and a dining hall for approximately 400 students. It is being used as a senior high school with about 230 students enrolled. An English teacher showed us that the labs and gymnasium are in good use. The gym ceiling is protected by a net and looks good. However, she reported that some want to remove the net. Fire officials are also reported to be unhappy with the decorative wood panelling in the auditorium. The building was initially cold but the Province has added a supplemental hot air heating system. Pressed chipboard was used in the construction and there were significant problems with dampness. However, the Province recently made repairs and treated the foundations and walls inside and out. Only minor signs of damage from dampness remained visible at our visit.

5. MANIAGO elementary school completed in 1978 at a total cost of \$ 965,604, and dedicated by Congressman Annunzio.

This school with 10 classrooms was designed for about 200 students. No one was available to show us around but we walked through. The building appeared fully utilized and the dining hall had been converted to a classroom. The kitchen equipment was not observed. Some ceiling panels in the gymnasium appeared out of place and we observed evidence of one roof leak.

6. TRAVESIO about 25 miles north of Pordenone. Completed in 1979 at a total cost to AID of \$ 692,799.

This junior high school with nine classrooms was intended for about 200 students and 180 were enrolled at the time of our visit. All facilities including the cafeteria and auditorium were reported to be in full use. No problems with leaks or heat were reported. The community has implemented its plans to construct a gym and playing fields around the school. The grass was not cut but the shrubs appeared to be in good condition.

7. SPILIMBERGO Completed in 1981 and dedicated in 1982 by Congressman Conte at a total cost to AID of \$3.6 million.

This is a very large agricultural training institute with 31 classrooms designed for 400+ students. Approximately 350 students are enrolled and the building was spotlessly clean and in excellent condition. The labs have been very well equipped and extensive demonstration plots have been established surrounding the beautiful building. Kitchen and dining facilities were not included. The heating system is okay and the gym well used. The auditorium has poor acoustics and the fire marshal is raising questions about stairs that are too narrow and glass partitions on stairways and balconies.

8. SAN DANIELE about 18 miles north of Udine. This secondary school was completed and dedicated in late 1978 at a total cost to AID of \$1.9 million.

This school was designed with 31 classrooms to accommodate about 600 students. About 650 students are enrolled. The kitchen is closed and unused and the dining area has been converted to a computer center. The school appears well kept and fully utilized.

9. SAN DANIELE center for the aged. Dedicated in 1980 by Don MacDonald. Total cost to AID \$2.6 million.

This center was designed with 100 beds in the form of family units, single rooms and apartments in a village setting surrounded by grounds and small garden plots. It is fully occupied and its dining and lounge facilities were in full use. It appeared very well managed. Grounds and landscaping were very well maintained.

10. BUJA This elementary school is in the hills about 12 miles north of Udine. It was dedicated in 1980 by Congressman Rodino at a total U.S. cost of \$912,000.

This school includes 14 classrooms for about 200 students plus a gymnasium. There are no dining facilities. The school operated from 1981 to 1986 with about 150 students in an experiment involving a sort of home-room arrangement with much more student-teacher interaction than is usual in Italy. However, there were roof leak problems and the school had been closed and under renovation for six months when we visited. The roof was being repaired, double windows installed and padding installed around rough exposed pillars in student areas. The building was being painted throughout. Administrative personnel advised us that they are very pleased with the school. They said that other new buildings constructed in the area are having similar roof leak problems and we should not be concerned. We visited the mayor who confirmed this and said that the school will be back in full service in September 1987.

11. BUIA Center for the Aged. This center was completed in 1981 at a total cost to AID of \$3.0 million.

It has accommodation for 80 persons in a village-type community surrounding piazzas and a central building with dining, lounge, administrative and medical facilities. The facility was fully occupied at the time of our visit and the staff wished that there was more space. The kitchen, dining and lounge facilities were observed to be in full use. The grounds were very well kept. The staff said that heating is quite costly but there are no problems. We noted some tiles popped up in one of the courtyards revealing, perhaps, some minor drainage problem.

12. MAJANO elementary and junior high school. Designed for 800 students and dedicated in 1980 at a total cost to AID of \$3.8 million.

This very large facility includes 44 classrooms, a 450 seat auditorium, a community gymnasium, a cafeteria and two libraries. It was being operated as two separate schools and a separate community sports complex at our visit. AID had dropped ten classrooms from the original plans for the elementary school. The elementary school is in full use with 350 students and local authorities have completed work to add five additional rooms. The gymnasium was in full use and the local authorities have added an athletic field.

At the time of our visit, the students of the junior high were on a field trip and the staff were attending some sort of a union meeting. We were shown around by the principal of the elementary school. The junior high, with about 220 students, is less fully used than the elementary school. It appeared that the library is open only two days a week.

There have been significant drainage problems at the facility. There was evidence of foundation dampness at the elementary school. There was little evidence of landscaping of the grounds.

13. MAJANO center for the aged. Dedicated in 1981 by Congressman Rodino and named for his wife. Total cost to AID of \$2.6 million.

This center has a capacity of 100 persons and was fully occupied at the time of our visit. It appeared well run. The dining hall was in full use and the geriatric infirmary and physical therapy facilities were being used for the community as well as by occupants of the center. Some roof leakage has been experienced and it has proved costly to heat in view of the large open spaces. The manager reported that some of the large open corridors are to be blocked off in winter to save on heating costs.

14. OSOPPO elementary and secondary school. Dedicated in 1980 by Congressman Richmond. Total cost to AID of \$1.8 million.

This school of 29 classrooms was designed for approximately 600 students. When we visited, the schools were being run separately with 230 in the elementary school and 116 in a junior high school. After initial problems, the heating system had been modified and separated to serve the two school separately. Heating is now okay. One comment indicated that furnishings we provided for this school are considered of low quality. The landscaping looked okay and the other facilities are in use. (There was not time for us to visit the nearby Center for the Aged which was completed in 1980 at a cost of \$2.0 million.)

15. GEMONA Vocational Training Institute. Completed in 1979 at a total cost to AID of \$3.0.

In addition to 22 regular classrooms, this large training institute includes 7 special classrooms, 7 laboratories, a large machine shop, a library, a dining room, an auditorium and laundry and administrative offices. A total of 631 students are enrolled. We were especially impressed with the quality and extent of laboratory and machine shop equipment. The fire officials have found the exit doors of the auditorium too small for it to be used for public purposes. The grounds did not look very well kept and need for a gym was expressed. However, the building is of steel and brick construction and showed no signs of wear and tear or of water damage either at the foundation or at the roof.

16. FAEDIS elementary and secondary schools. Designed for 400 students and completed in 1979 at a total cost to AID of \$1.5 million. It was dedicated by Senator DeConcini.

These schools have not been combined, as planned, due to the Italian School Reform Act not being fully implemented. However, they are being fully utilized and looked very good both inside and out. The nearby AID-built gymnasium was also in full use and the local authorities have built a playing field beside it. These buildings are of brick and reinforced concrete construction and all, though heavily used, look especially good both inside and out. There has been a serious drainage problem at the gym and the floor of that building had to be raised 8 or 10 inches and a dam built across one entrance to keep the water out as it is located in a bit of a bowl between the school buildings.

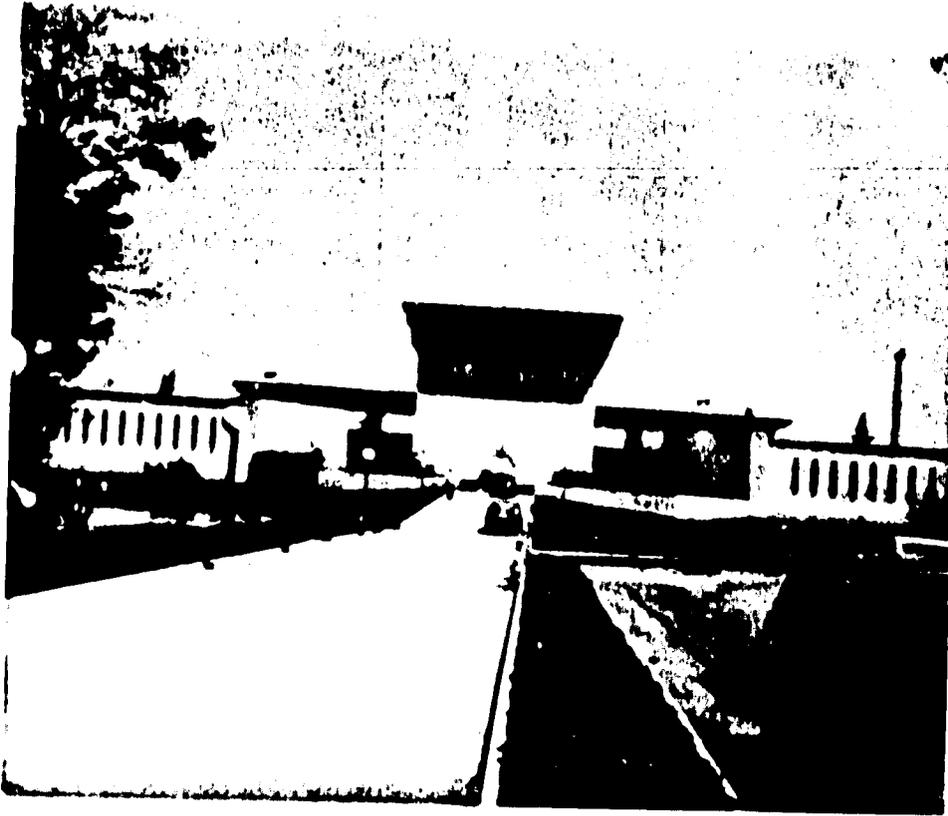
17. SAN PIETRO school and dormitory. Completed in 1981 at a total cost to AID of \$1.8 million.

This facility is in a community just a short distance from the Yugoslavian border. It was designed as a sort of youth hostel, school and community facility and has been operating as such at a relatively low level. It is now being taken over by the Regione, to be operated as a hotel school thus taking advantage of the good kitchens, dining and lodging facilities that were included. The directress was very enthusiastic and pleased with the facility. She said that heating has been expensive and there have been very minor drainage problems.

18. CIVIDALE secondary school. Located 9 miles north of Udine near the Yugoslav border. Completed in 1981 at a total cost to AID of \$2.8 million. Dedicated by Congressman Rodino and Ambassador Rabb.

This large school includes 30 class rooms designed to accommodate 600 students. There is also a gymnasium, an auditorium and a library. The school is fully used and appeared in excellent condition. Construction is of brick and the roof covering is copper. No leaks or heating problems were reported. The principal reported that the gym is in constant use and the auditorium is frequently used both by students and the community. He reported no fire department complaints about the auditorium yet. He also reported proudly that the school had won first prize in a recent design competition among Italian, Austrian and Yugoslav schools in that area.

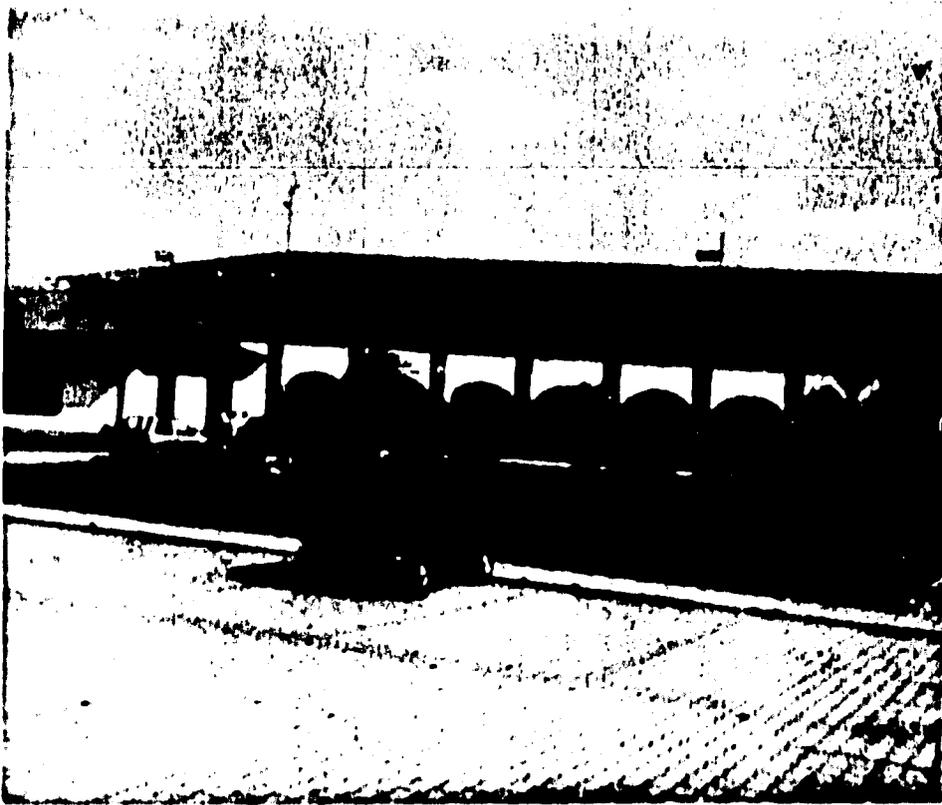
NOTE: There was insufficient time to visit two other homes for the aged at Magnano and Villa Santina and we only passed by the center at Osoppo.



1. SACILE



2. AVIANO



3. PORDENONE



4. MANIAGO



6. TRAVESIO

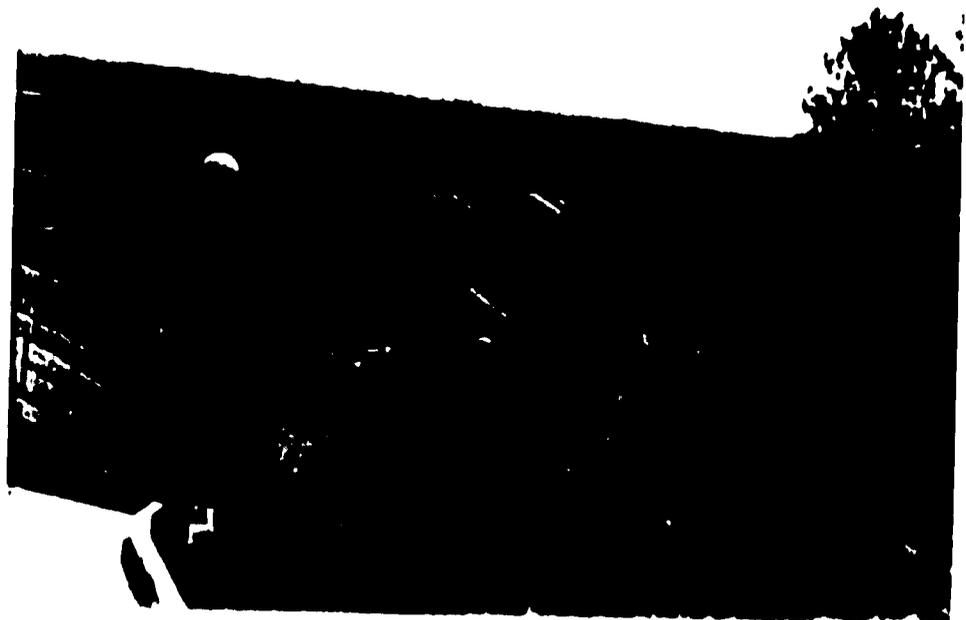


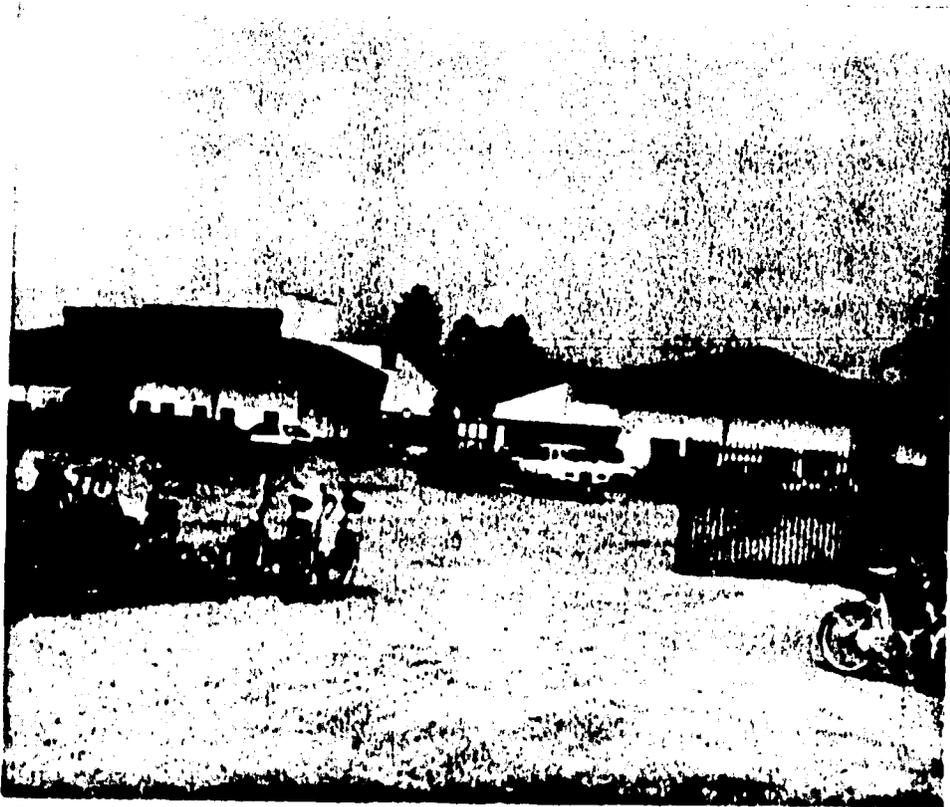
6. TRAVESIO



7. SPILLIMBERGO

7. SPILLIMBERGO





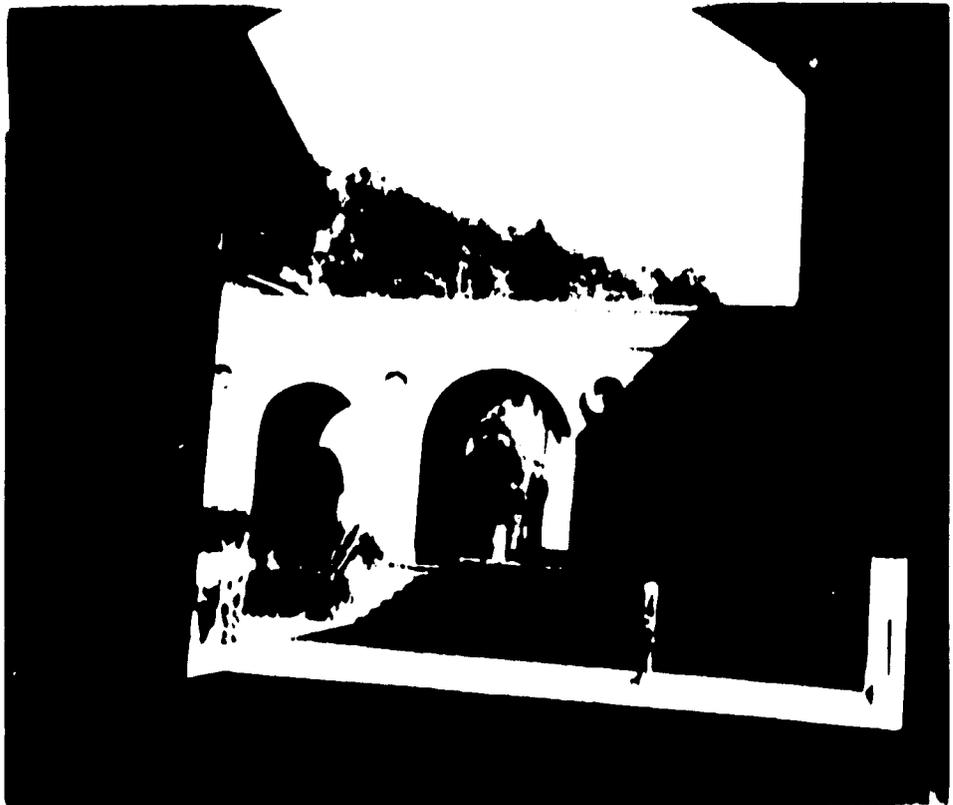
8 - 9. SAN DANIELE



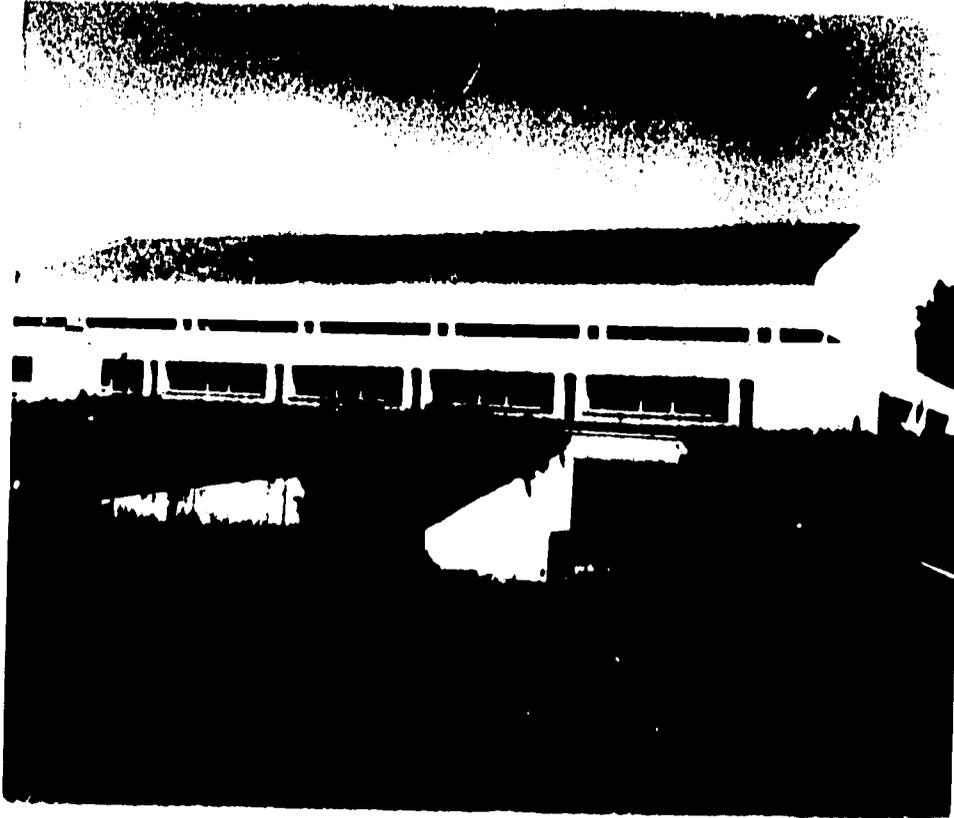
8 - 9. SAN DANIELE



10 - 11. BUIA



10 - 11. BUIA



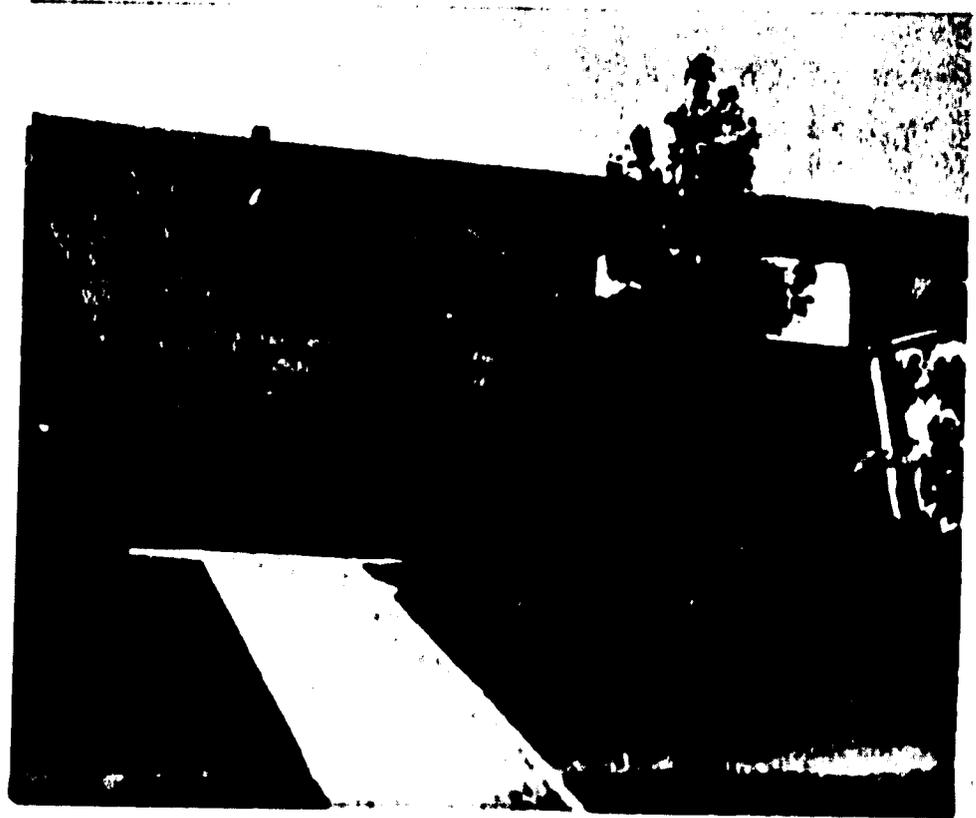
12. MAJANO



12. MAJANO



13. MAJANO
RODINO CENTER



13. MAJANO
RODINO CENTER



14. OSOPPO



15. GEMONA



17. SAN PIETRO AL NATISONE



18. CIVIDALE



UNITED STATES OF AMERICA
STATI UNITI D'AMERICA
AGENCY FOR INTERNATIONAL DEVELOPMENT

**The U.S. Assistance Program
in Italy's Friuli Region
following the earthquakes
of 1976**

**Programma
degli Stati Uniti d'America
per la ricostruzione del Friuli
in seguito ai terremoti
del 1976**



1976-1982

THE U. S. ASSISTANCE PROGRAM IN ITALY'S FRIULI REGION AFTER THE 1976 EARTHQUAKES

In 1976, Italy's northeastern Friuli region was ravaged first in May and then again in September by two earthquakes. About 1000 persons lost their lives in these disasters, over 2400 were injured, about 32,000 were left homeless while over 100,000 more suffered serious damage to their houses. Official estimates of the damages caused by the two earthquakes totalled \$ 5 billion.

The two earthquakes occurred within a few months of each other and were centered in different, adjacent zones devastating an area in excess of 800 square miles. The epicenter of the first, and by far the more serious, of the two earthquakes was in the prealpine district, just north of Udine. It registered 6.4 in intensity on the Richter scale. The second, less violent earthquake, occurred further to the west, near Pordenone.

Italian military detachments arrived in the disaster area only hours after the May 6th earthquake. In addition to these soldiers, troops from a number of NATO countries, including the United States, were dispatched to the affected zone. These forces provided emergency medical help, cleared away rubble, and relocated the homeless in temporary shelters. The Agency for International Development (AID) of the U.S. government donated \$ 650,000 in field rations, medical supplies, and family tents, which were distributed to the disaster victims by the U.S. Army.

The U.S. Congress evidenced its concern in late May 1976 by appropriating \$ 25 million for the Friuli. Immediately thereafter, the U.S. Agency for International Development sent a team to Italy to develop an assistance program.

An agreement was negotiated with the Italian government which established the legal basis for the delivery of U.S. assistance. AID determined that a program devoted to the reconstruction of public facilities for the two most vulnerable groups in the Friuli population - the young and the old - represented the best possible use of U.S. public funds.

Following consultations with local authorities and their agreement to provide the required land and utilities and to maintain the facilities upon completion, the senior AID representative and his staff identified the communities in the earthquake zone where eight U.S. - financed schools and four centers for the aged would be built.

Plans and financial commitments for these twelve projects were developed rapidly, so rapidly, in fact, that when the second earthquake battered the Friuli on September 15, 1976, no U.S. funds remained available to help these newly damaged communities. Once again the U.S. Congress wanted to respond, and following hearings on the matter, appropriated another \$ 25 million in 1977. These funds were subsequently programmed for six more schools and three more centers for the aged.

Accordingly, total U.S. assistance to the Friuli earthquake victims rose to \$ 50 million used for twenty-one projects, that is fourteen schools and seven centers for the aged in sixteen towns

in the Friuli. In July 1980 the U.S. Congress appropriated \$ 3 million more to offset possible higher program costs thus raising the total U.S. public contribution up to \$ 53 million.

The Associazione Nazionale Alpini (ANA), the veterans' organization of the Italian mountain troops, has cooperated with AID in the supervision of construction of six schools and seven centers for the aged.

A list follows of the twenty-one projects. Most evoke a traditional architectural style, which fits well in the Friuli, although modern earthquake resistant design and technology were used.

PROGRAMMA STATUNITENSE DI RICOSTRUZIONE DEL FRIULI TERREMOTATO

Nel 1976 il Friuli, la regione nord-orientale d'Italia, veniva colpita da due forti movimenti sismici, primo in maggio e poi in settembre. Nei tragici eventi circa 1000 persone persero la vita, più di 2400 furono i feriti, e quasi 100.000 i senzatetto. Le stime ufficiali dei danni sono state riportate nell'ordine di 5 miliardi di dollari.

Gli effetti disastrosi dei due sismi, che si susseguirono a pochi mesi l'uno dall'altro e si accentuarono in zone diverse, lasciarono la distruzione in un'area di quasi 4.800 kmq. L'epicentro del primo terremoto, di gran lunga il più grave dei due, investì una vasta area situata a nord di Udine con un'intensità di 6,4 gradi della scala Richter. Il secondo, meno violento, si manifestò più ad ovest ed interessò, particolarmente, la zona pedemontana del Pordenonese.

Reparti militari italiani si portarono sul luogo del disastro solo poche ore dopo gli eventi tellurici del 6 maggio. A loro si unirono soldati di altre nazioni appartenenti alla NATO, inclusi reparti statunitensi di stanza in Italia. Questi reparti si prodigarono a fornire l'assistenza medica di pronto soccorso, aiutarono a rimuovere le macerie e a provvedere i senzatetto di dimore temporanee. L'Ente per lo Sviluppo Internazionale del Governo USA (AID) stanziò 650.000 dollari per la fornitura di vettovaglie, medicinali e tende famigliari che vennero prontamente distribuite ai terremotati dall'esercito degli Stati Uniti d'America.

La gravità del terremoto nel Friuli fu subito riconosciuta dal Congresso degli Stati Uniti, il quale dispose, alla fine di maggio, uno stanziamento di 25 milioni di dollari. Subito dopo l'Agenzia per lo Sviluppo Internazionale (AID) inviò in Italia una delegazione speciale con il compito di formulare un programma di assistenza che non solo tenesse conto dei danni sofferti dalla popolazione, ma che altresì non duplicasse eventuali programmi italiani.

Con la stipulazione di un accordo con il Governo Italiano vennero poste le basi giuridiche per l'inizio del programma d'interventi degli Stati Uniti d'America in favore del Friuli. Si optò inoltre per la ricostruzione di opere pubbliche a carattere sociale ed educativo a beneficio dei gruppi più deboli della popolazione - giovani e vecchi - in quanto esse rappresentavano la miglior utilizzazione possibile dei fondi messi a disposizione dal Governo degli Stati Uniti.

A seguito di innumerevoli consultazioni con le autorità locali, sia per la cesuione dei terreni necessari sia per ottenere l'assicurazione degli allacciamenti e della manutenzione degli edifici dopo il loro completamento, il capo della delegazione americana, assieme ai suoi collaboratori, individuò le comunità colpite dove si sarebbero costruite le otto scuole e quattro centri per gli anziani, finanziati con i fondi stanziati dal congresso USA. Gli impegni finanziari ed i piani di

costruzione per questi dodici progetti vennero posti in atto molto rapidamente, tanto rapidamente, infatti, che quando il secondo movimento tellurico colpì il Friuli, il 15 settembre 1976, non c'erano più fondi americani disponibili per assistere le nuove comunità disastrose. Nuovamente il Congresso USA volle rispondere a questa tragica situazione e, dopo varie riunioni in merito, stanziò altri 25 milioni di dollari per l'anno 1977. Questi fondi vennero susseguentemente impiegati per le costruzioni di altre sei scuole e di altri tre centri per anziani.

In conseguenza di ciò il programma di Assistenza Americana per i terremotati del Friuli raggiunse complessivamente i 50 milioni di dollari da impiegarsi per la realizzazione di 21 progetti, e specificatamente 14 scuole e sette centri per gli anziani, distribuiti in sedici cittadine terremotate del Friuli. In luglio 1980 il Congresso degli Stati Uniti stanziò altri 3 milioni di dollari per far fronte agli aumenti dei costi del programma che avrebbero potuto verificarsi.

L'Associazione Nazionale Alpini (ANA), l'organizzazione italiana degli alpini in congedo, ha cooperato e coopera con l'A.I.D. nella supervisione della costruzione di sei scuole e di sette centri per anziani.

La lista dei 21 progetti è qui sotto riportata. Nell'insieme gran parte di questi edifici rientrano nelle linee architettoniche tradizionali e ben si inseriscono nella tipologia locale, pur tenendo presente che sono stati disegnati e costruiti con caratteristiche antisismiche di massimo grado.

Project Progetto	Town Comune	Architect Architetto	Direz. Lavori	Impresa
Elementary School Scuola Elementare	Aviano	Aldo Giurgola New York - N.Y.	ing. Della Marina	Presotto S.p.A.
Center for the Aged Centro per gli Anziani	Buia	Renato Severino Greenwich - Conn.	ing. Della Marina	Impredil S.p.A.
Elementary School Scuola Elementare	Buia	Giancarlo De Carlo Milano	arch. Gasparini ing. Della Marina	Lovati S.p.A.
Secondary School Scuola Media	Cividale	Roberto Einaudi Roma	ing. Cola	Grion S.p.A.
Elementary and Secondary School Scuola Elementare e Media	Faedis	Umberto Riva Milano	arch. Gasparini ing. Della Marina	Rizzani S.p.A.
Vocational Training Institute Istituto Professionale	Gemona	Marco Zanuso Milano	arch. Gasparini ing. Della Marina	Rizzani S.p.A.
Center for the Aged Centro per gli Anziani	Magnano in Riviera	Renato Severino Greenwich - Conn.	ing. Lorenzoni	Zorattini S.p.A.
Center for the Aged Centro per gli Anziani	Majano	Renato Severino Greenwich - Conn.	ing. Lorenzoni	Bulfon S.p.A.
Elementary and Secondary School Scuola Elementare e Media	Majano	Luisa Anversa Roma	ing. Da Farra	COS.MA S.p.A.
Junior Technical College Liceo Scientifico	Maniago	Aldo Giurgola New York - N. Y.	ing. Della Marina	Rizzani S.p.A.
Elementary School Scuola Elementare	Maniago	Gianni Avon Udine	arch. Gasparini	Impredil S.p.A.
Center for the Aged Centro per gli Anziani	Osoppo	Renato Severino Greenwich - Conn.	ing. Lorenzoni	Fabris S.p.A.
Elementary and Secondary School Scuola Elementare e Media	Osoppo	Giancarlo De Carlo Milano	arch. Gasparini ing. Della Marina	Lovati S.p.A.
Center for the Aged Centro per gli Anziani	Foidenone	Sergio Alessiani e Renato Severino Firenze	ing. Biasutti	Andreetta S.p.A.
Junior College Scuola Media Sup. Omnicomprensiva	Sacile	Sergio Alessiani Firenze	ing. Dal Farra	Collodetto S.p.A.
Center for the Aged Centro per gli Anziani	San Daniele	Renato Severino Greenwich - Conn.	ing. Lorenzoni	Grion S.p.A.
Secondary School Scuola Media	San Daniele	Vico Magistretti Milano	arch. Gasparini	Impredil S.p.A.
Normal School Dormitory Convitto - Istituto Magistrale	S. Pietro al Natissone	Aldo Giurgola New York - N. Y.	ing. Cola	Rizzani S.p.A.
Agricultural Institute Istituto Agrario	Spilimbergo	Renato Severino Greenwich - Conn.	ing. Da Farra	Collodetto S.p.A.
Secondary School Scuola Media	Travesio	Gianni Avon Udine	arch. Gasparini	Lovati S.p.A.
Center for the Aged Centro per gli Anziani	Villa Santina	Sergio Alessiani Firenze	ing. Mattei	Polettini e Zanier S.p.A.

