## The intervention of the photogrammetric unit of the city police of Bari in areas affected by the earthquake of 23 November 1980

## ANTONIO CAVALLO

The press and television have given ample news of the existence in Bari, at the initiative of the City Brigade Corps, of a photogrammetric unit which, composed of three urban policemen and trained in the new operational technique by Prof. Antonio Daddabbo, professor of techniques photogrammetric of the University of Bari, they operate in the city with a van specially equipped for the photographic recovery of road accidents and the control on construction sites.

The unit is equipped with Wild C 120 two-chamber photogrammetric equipment, with wide-angle optics and suitable for shooting between a minimum distance of 6 meters and a maximum distance of 24 meters. Born for the photogrammetric survey of road accidents, the photogrammetric unit was subsequently engaged, at the explicit request of the judiciary, in the fight against illegal construction as a "police eye" which intervenes, especially as a preventive measure, to avoid infringements of the rules that regulate the building material. Everyone knows that in the face of this necessary control activity, it is the bitter consideration that today the police are almost unable to perform this important task and the main cause lies in the fact that they have to face new problems with old structures. It is with legitimate pride that we can now say that the Municipality of Bari was the first Municipality of Italy to equip a rapid intervention unit with a camera for photogrammetric shooting. To complete this brief introduction to the report, we will say that our photogrammetric unit, the spearhead in the field of new operating techniques, was also engaged on the occasion of the cycle of events of "Bari found", organized by the Councilorship for Culture of the Municipality, starting a major work of the farms, towers and fortified works of the municipal area.

A few days after the serious catastrophe that hit Basilicata and precisely 11-12-80, Prof. Antonio Daddabbo proposed me the use of the photogrammetric unit for the reliefs of monuments damaged by the earthquake. Friendship relations prevented me from responding negatively, so I set in motion all the initiatives to provide me with the necessary authorizations from the superiors and from the municipal administration itself, which proved to be very sensitive in this circumstance: but perhaps I will never be able to describe the difficulties encountered to explain why the urban policemen of Bari had to take over the monuments of Basilicata.

To the same Superintendency of Basilicata, which we reached with an adventurous journey between detours and icy roads, when I went to communicate the availability of the Municipal Administration of Bari, I do not think that the perplexities were minor and, to be honest, the most perplexed I was really me. In fact, only a few days ago the components of the photogrammetric unit had begun to grapple with the architectural survey: but the serious situation created by the earthquake fortunately made any type of indecision impossible. After clearing the plans for immediate intervention with the Superintendent of Potenza, Architect Bucci, the dispatch of the traffic police to the earthquake zone of Basilicata began on 5-12-1980: due to the severity of the season, the double chamber was mounted on an AR car, type Campagnola, supplied to the Corps. I do not think that such equipment has ever undergone a test like that we have had in the past. The U.F. in fact, it operated in the presence of obstacles once deemed insurmountable. Shoots were made despite the presence of ice making it dangerous to move the delicate equipment with your hands.

Wind rain and sleet did not suggest any damage to the instrument. The low light has led to shutter speeds of over 10 minutes, but the results have been more than satisfactory.

Although having the U.F. a recovery potential of 240 plates, in our situation has been exploited to a minimal extent, since the greatest time was spent on moving from one country to another. Initially the intervention was daily, with the use of the two crews making up the unit on alternate days. Subsequently, it was considered appropriate to bring the crew members to three and operate, more profitably, on alternate days.

The average distance at which it was operated was 200 Km .: the U.F. he left Bari at six in the morning and returned there at around 19.30. In total the U.F. has traveled about 9,000 km in the earthquake-stricken areas of Basilicata; the brigade stopped in thirty locations and, shooting 40 monuments, took a total of 1,368 frames.

To give an illustrative and summary idea of the commitment and professional seriousness shown on the occasion by the good policemen, regardless of the difficulties and fatigue sustained, to the enthusiastic and pioneering directives of the Director of the civil expedition, the tireless Prof. Antonio Daddabbo , here is a summary of the monuments detected:

DATA	COMUNE	SOGGETTO	N. Riprese
5-12-80	Tricarico	Chiesa di S.Francesco	13
		Convento di S. Chiara	13
6-12-80	Pignola	Chiesa Madre	3
		Torre dell'Orologio	6
		Chiesa del Pantano	25
7-12-80	Abriola	Chiesa Cattedrale	36
8-12-80	Pignola	Chiesa di S. Donato	16
		Chiesa Madre (interno)	21
		Chiesa di S. Rocco	9
11-12-80	Trivigno	Chiesa Madre	25
12-12-80	Cancellara	Chiesa Madre	28
		Castello	25
13-12-80	Balvano	Chiesa Madre	16
		Piazza Cavour	21
15-12-80	Pietragalla	Palazzo Ducale	36
17-12-80	Montescaglioso	Chiesa Madre	56
19-12-80	Acerenza	Chiesa Cattedrale	36
21-12-80	Grassano	Palazzo Ferri	13
		Palazzo Materi	12
		Palazzo Calia	2
		Palazzo Ruggieri	15
		Chiesa Madre (campanile)	1
23-12-80	Pescopagano	Convento	24
26-12-80	Lioni	Chiesa Madre	7
	Pescopagano	Chiesa di S. Lorenzo	10
		Chiesa Madre	21
28-12-80	Muro Lucano	Chiesa Madre	7
		Castello	14
30-12-80	Pescopagano	Chiesa di S. Vito	5
		Chiesa Incoronata	5
	San'Angelo dei Lombardi	Chiesa Madre	34
2- 1-81	Bella	Chiesa Madre	34

DATA	COMUNE	SOGGETTO	N. Riprese
4 -1- 81	San Fele	Chiesa Madre	22
6 -1- 81	Tito	Chiesa Madre	31
10 -1- 81	Salandra	Chiesa Madre	10
22 -1- 81	Grottole	Chiesa di Ruta	35
31-1- 81	Maschito	Chiesa Madre	30
3 - 2 - 81	Ripacandida	Chiesa Madre	25
9 - 2 - 81	Rapone	Chiesa Madre	18
14 - 2 - 81	Matera	Palazzo del Governo	26

May this team and avant-garde work, entrusted for now only to the spontaneity of some very valid cultural operators, meet the favor and correspondence of the political action of the public authorities, especially at regional level, necessary for the practical implementation of the phase of research when offering a continuous and effective service.

It would be truly a shame and a lost historical opportunity if so much work of detection and cataloging, supported also by the encouraging contribution of operational opening of the local judiciary, would be dispersed by situations of realization contrast or even worse by the omissive indifference of those who have the power and duty to organize this new social service. We urban policemen, in our institutional modesty, supported by the broad moral and financial collaboration of our administration, are convinced and proud to have contributed to the most profitable dissemination and proselytism of the new photogrammetric operating technique and, aware of the relative prestige deriving from our Corps, we trust in a stable and planned institutionalization of this modern system of environmental surveys, in defense of technological efficiency and real civil progress, based on the immediacy and maximum precision of results, which guarantee the most scrupulous truthfulness than detected.

This report, without having the pretension to face the strictly technical questions of the new photogrammetric method, wants to be only a sure testimony of operativeness and commitment, uncommon in this particular moment of moral disconnect of the national life, by the Urban Police of Bari that, responding to the charge of enthusiasm impressed on them by Prof. Antonio Daddabbo, convinced supporter of the natural vocation of the Urban Police for the protection and protection of the environmental heritage, they were able to gain recognition, even

nationally, of the decisive role played in the propaganda and effective application that photogrammetry can have in the conservation and safeguarding of cultural heritage.

At the end of this brief illustration of our work carried out in the photogrammetric recovery of the monuments devastated by the earthquake, I hope that those who are duty-bound will not remain insensitive so that all this potential heritage of faithful restitution will not be lost. With this wish, on behalf of the Bari City Police Corps, I confirm the widest availability for an organic connection of an interdisciplinary work of research and study, especially at the level of competence of the Puglia Region, and I extend to the Convegnists and Organizers the most cordial and respectful greeting of all the members of the Bari Police Department of this original Seminar.