

Anthropology and the Statistical Sciences, a one-day meeting in memory of *Fosca Veronesi Martuzzi*

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On 10 September 2013, a one-day meeting entitled "Anthropology and the Statistical Sciences" was held in Bologna in memory of Fosca Veronesi Martuzzi, professor of Anthropology in the Faculty of Statistical Sciences at the University of Bologna. The meeting preceded the 20th Congress of the "Associazione Antropologica Italiana" which took place in Ferrara (11-13 september 2013).

The purpose of the day was to recollect and analyse the developments of a scientific and academic experience which was outstanding in many respects. The day was introduced by the organizer, Paola Gueresi, by the director of the Department of Statistical Sciences, Rosella Rettaroli, and the president of the Italian Anthropological Association, Luigi Capasso. This was followed by talks from Fiorenzo Facchini, professor emeritus of Anthropology, and Paola Monari, professor of Statistics, who outlined the scientific career of Fosca Veronesi Martuzzi and her academic achievements. These included prestigious roles such as president of the Federation of Italian Anthropological Institutions, and, at the University of Bologna, head of the Department of Statistical Sciences, president of the University library system and member of the Bioethics committee.

During the course of the day, two scientific sessions provided an opportunity for discussion and an incentive to increase collaboration between anthropologists, statisticians and demographers.

The first session particularly focused on the applications of statistical methodology to bio-anthropological data. Maria Giovanna Belcastro, Francesco Cassata and Stefania Toselli began by

recollecting Fabio Frassetto's contribution to Biometry and his role in guiding Fosca Veronesi Martuzzi at the beginning of her research activities. Marco Capocasa and Giovanni Destro Bisol illustrated to anthropologists and statisticians the opportunities of the data sharing policy promoted by the Journal of Anthropological Sciences. In particular, they pointed out how data sharing can speed up scientific progress by building up increasingly comprehensive and informative datasets, by checking any experimental errors and offering the opportunity to verify new theories or validate new methods of analysis. In line with this, Maria Enrica Danubio discussed several studies carried out on an archive of anthropometric data regarding African populations that was made available and shared by a number of Italian anthropologists. It was described how this archive represents an excellent source for the reconstruction of the biological and economic history of populations where written sources are scarce. Following this, Laura Anderlucci, Angela Montanari and Cinzia Viroli discussed a novel matrix-variate regression model, which analyzes the effect of covariates in the description of biological variability within and between couples of twins. The final two communications dealt with experiences in teaching and research involving statisticians and anthropologists: Mario Di Bacco and Renzo Bigazzi recollected the 20 year-long experience of the Summer School "Inferenza statistica in Biologia e Scienze Umane" (Statistical inference in Biology and Human Sciences), while Elisabetta Marini in collaboration with Roberto Buffa and Walter Racugno illustrated several anthropometric projects concerning sexual dimorphism, nutritional

status in children and body composition in the elderly, in which specifically adapted or redefined statistical models and methods were used.

The afternoon session dealt with issues of demography and biodemography, a field that Fosca Veronesi Martuzzi devoted the final years of her research to. Numerous subjects were discussed which varied from the demography of the populations of colonial America in contributions from Massimo Livi Bacci and Laura Laurencich Minelli, to the determinants of early infant mortality in the Bolognese countryside from the Unity of Italy to the Second World War in the contribution by Patrizia Agati, Francesco Scalone, Aurora Angeli and Annalisa Donno. Other interventions included the demographic impact on the ecosystem and the prospects of food availability by Brunetto Chiarelli, and the trajectories of life of the male population of Alghero (Sardinia) according to social condition and state of health by Stanislao Mazzoni and Marco Breschi. Some communications dealt with Alpine populations, in remembrance of Fosca Veronesi Martuzzi's contribution to the study of these populations. Alessio Boattini, Paola Guerresi, Rossella Miglio, Marta Ottone and Davide Pettener presented the first results of a vast biodemographic research project involving over a million subjects born in Trentino between 1815 and 1923. Marilena Girotti,

Marcello Fagiano, Rosa Boano, Emma Rabino Massa and Sergio De Iasio then analysed marriage behaviour in a village in Val di Susa between '800 and '900, while Valentina Coia, Marco Capocasa, Paolo Anagnostou, Cinzia Battaglia and Giovanni Destro Bisol announced the latest results of their molecular anthropological research into the populations of the eastern Alps. The remaining communications focused primarily on the use of surnames in biodemography. Enzo Lucchetti spoke about surnames as a means for defining populations while Gianfranco Biondi showed how the analysis of surnames made it possible to estimate the degree of isolation or genetic admixture of various linguistic minorities in Italy. Sergio Tofanelli, in collaboration with Davide Risso, Luca Taglioli and Giorgio Paoli, then proposed a new genetic sampling strategy based on surnames.

In conclusion, the day offered numerous contributions which highlighted how the dialogue between anthropological and statistical disciplines continues to offer a valuable perspective for analysing the structure and evolution of human populations. The large audience paid tribute to Fosca Veronesi Martuzzi not only as a scholar who played a prominent role in her profession and in various institutional bodies, but also as a person whose remarkable intellectual qualities and character made her unforgettable.

Info on the web

<http://www.stat.unibo.it/it/eventi/I2019antropologia-e-le-scienze-statistiche>

The complete program of the meeting is available here.
