



FROM ARCHEOPALYNOLOGY TO AEROPALYNOLGY: A MODEL FOR URBAN GREEN DEVELOPMENT STUDY

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With the increase sensibility to climate changes that we have observed in recent years came also the necessity to monitor and deepen our understanding in this matter and on the link between those changes and pollen and other allergens that tends to increase with higher temperatures. These can trigger allergic diseases and asthma, that both have been shown to be increasing in recent years (Perzanowski et al. 2002). The plants chosen for urban green areas are therefore more interesting to study as they are at the same time sensible to climatic changes and also in highly populated and possibly polluted areas, therefore possibly having an impact on allergies. At the moment 79 samples from two archaeological sites in Reggio Emilia (Park Vittoria, san Prospero square) have been selected and will be prepared during the first months of next year. In February a collection of moss samples and superficial soil (the estimate is around 50-60 samples) will be collected in selected spots of the city of Reggio Emilia in order to have a comparison for the data that will be obtained from the archaeological samples. All the samples, after adequate treatment (see, Florenzano et al, 2012 for archaeological and soil samples, Aleffi 2008 for moss), will be mounted on permanent slides and analysed. Pollen identification will be made at 400x or 1000x magnification with the help of keys and atlases. The ARPA station located in Reggio Emilia will be contacted in order to obtain data of the pollen rain of recent years and to possibly arrange another aeropalynological sampler closer to the archeological sites. A possible comparison with samples (both from archeological sites and aeropalynology) is being considered, provided the possibility of finding suitable archeological samples. Currently samples from Terme degli Stucchi (Rome) are being considered. This would provide an excellent comparison tool to better understand how urban flora evolves in different cities.

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