

BuioMetria Partecipativa (Participatory Night Sky Monitoring) 2012 Activity Report



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Foreword

The BuioMetria Partecipativa project (which would literally translate to “participatory dark-ometry”, but which we normally refer to as “participatory night sky quality monitoring”) is an initiative born in Italy in 2008 to raise awareness on the topic of light pollution and its various forms of impact, while at the same time collecting quantitative data on this issue. Since 2010 we started proposing an annual activity report.

The third edition of the annual activity report for the BuioMetria Partecipativa project has a different form, compared to the two previous ones. It is also the first time that we are providing an English translation. For 2010 and 2011 our priority was to give an indication of the growth of the project by showing the trend in number of users and number of measurements. Now that we are into the fifth year of the BMP initiative, and also considering some of the developments from the past months, we found less interesting to focus on quantitative aspects, and more useful to provide insight on some of the qualitative aspects of our activity.

In addition to this document we invite you to:

- review the poster presented at the 18th International Astronomy Union assembly in Beijing, China, at the end of August 2012. This offers a good overview of the first four years of the BuioMetria Partecipativa project (<http://www.attivarti.org/?p=1040>);
- check the past annual activity reports available from: http://www.pibinko.org/bmp2/?page_id=2235 (only in Italian);
- visit the buiometriapartecipativa.org blog. The “article archive” is recommended as an entry point to check past events. For English readers, a specific English section is provided at the top level of the web site, highlighting English-language content;

For any request for information, or for comments, you may contact us at the e-mail address bmp@pibinko.org.

The measurement campaign

The measurement campaign in 2012 has been proceeding in line with the past year. Around June we proposed an overall re-organization of “pick up points” which have been operating since 2009 in various parts of Italy, so as to minimize shipping costs for the sensors. The motivation for this change came from the fact that in some cases the managers of the pick-up points eventually acquired their own instrumentation while, in others, we found that the local contact points had lost their interest in making measures without reporting the possibility of passing the sensor to others.

During the Summer we launched a measurement campaign focused on the Gulf of Follonica, in Southern Tuscany. As in past occasions directed to a very wide target, while the number of measures collected was limited, the experience was useful to promote the project (and to spread awareness on the issue of light pollution) with subjects who were unaware of this. Three Sky Quality Meters were deployed: one in a cafe, one in a small restaurant, and one in a grocery shop in the countryside, so as to expose the sensor to a very open audience. In addition to feeding the collected data to the BMP database, the results of the campaign, including a combination of maps, media clips, and other documents, were then presented in the Follonica public art gallery, in the context of the cultural program managed by Fondazione Grosseto Cultura

Some of the measurements collected during the course of the year, for which the upload to the database was delayed to after the Summer, have not yet been transmitted to the system due to server issues which showed up towards the end of October and which were resolved completely during the Christmas break. These measures can now safely be inserted in the system.

Education and dissemination

In addition to the usual events (around fourty in four years), where we provide information on the issue of light pollution and we invite people to participate to our measurement campaign, during 2012 we had the possibility of giving lectures within the Educational program managed by the Livorno Province. Francesco Giubbilini followed various high school classes, both with seminars and outings in the Livorno area. The other new type of dissemination was represented by the art exhibition in Follonica, mentioned above. The “artwork” we assembled in that occasion was the also shown during the month of December in the Follonica café which was one of the pick-up points for the Sky Quality Meter during the Summer.

Technology

The two previous years (2010 and 2011) were characterized by frequent updates and enhancements to the technological infrastructure we designed and developed for the BMP project. For 2012 we are reporting less activity in this area. One of the reasons is due the fact that the level of the services we set up in the past years was deemed sufficient for our 2012 needs. The other reason is that we decided to invest more energies in promotion and dissemination activities. Still, we did manage to provide a substantial restyling of the Wordpress site, and to migrate the automated data aggregation utilities which are at the heart of the CORDILIT system to the dedicated Attivarti.org server. This setup allows more flexibility in the management of these services and will facilitate the addition of new components to the infrastructure.

Collaboration with other organizations

At the **national** level, we continued the collaboration with Veneto Stellato, for co-ordinated collection of data from fixed monitoring stations within the CORDILIT group. Currently we have five stations connected, of which four in the Veneto Region, and one in Lazio. The monitoring station which was installed in Castiglioncello (Tuscany), and which served as the prototype to start the CORDILIT operations in the Winter of 2010-2011, was dismantled at the end of Spring, and is

available for re-deployment at a different location.

In the first months of the year we had various meetings with the Coordination of stargazer associations in Tuscany, other associations in the Livorno area (SAIT and ALSA), and the Livorno Museum of Natural History. These meetings were aimed at the creation of a network of Tuscan subjects, to undertake awareness raising activities in this region. With the BMP team we advertised the existence of the network to our contacts, and we stimulated additional expressions of interest. After a first phase of activity, mostly related to promoting the transmittal of observations to the revision of the master plan of the Tuscan Regional Administration in the areas of environment and energy in May, things have been slowing down in this specific community. A mailing list is in any case available for discussions in the “Toscana Stellata” (Starry Tuscany) domain, and you can send us an e-mail for more information.

In December we activated a sky quality meter pick-up point at the Biblioteca Popolare San Michele in Alghero (Sardinia), a public library specialized in humanities. This accomplishment was very important for the project, since it represented the possibility of meeting two objectives we had in mind since the very first steps: establishing formal relationship between an environmental project and a cultural network, and setting a more stable presence in Sardinia. The pick-up point is now warming up. Having launched the activities of this pick-up point in the Winter time, we will need to account for the likelihood of having more cloudy nights and, hence, less opportunities to collect new measurements. In the meantime, the volunteers which we identified as starting points of the process are getting acquainted with the project and the tools.

On the **international** level of operations, we maintained and further consolidated our contacts with different organizations, mainly in the research area. With these organizations we have been interacting both on sensor-related issues (e.g. with the participation to an intercalibration campaign in The Netherlands), as well as on issues such as the standardization data formats. In September we attended the IDA Symposium, held in Poland, where we re-proposed a progress of our activities and had the possibility of sharing our ideas with a diverse set of stakeholders (administrators of public facilities such as parks and protected areas, lighting and light pollution specialists, educators, and activist groups).

Miscellanea

During the month of October the issue of policy for the optimization of energy consumption related to artificial lighting became a topic of attention for a general audience in Italy. A law proposed by the Government contained a measure nicknamed “operation dark skies”, with various technical guidelines to reduce public lighting, in the perspective of substantial economic savings. This proposal generated a couple of weeks of controversial debate, and the part of the law related to savings through optimization of public lighting was eventually discarded. In this context, we issued a press release to remind that nor the BMP project, nor the Attivarti.org association had any role in the creation of the law, and proposed actually to renew the discussion on the light pollution and energy saving issue in a more open manner, with respect to what we observed from the media and from the communities of interest which were engaged. The original press release is available, in Italian, at the URL <http://www.attivarti.org/?p=1075>.

Further to this, in December we organized a public meeting in Florence. Here we shared our proposal for comments to the revision of the Tuscan master plan for environment and energy. As in all the other events we have arranged in time, we proposed our ideas, together with a wide array of references on light pollution and night sky protection, so that attendees may have an opportunity to develop an educated opinion about the issue, prior to committing to making independent comments on the regional plan.

Future developments

At the time of writing, our plan is to continue within the BuioMetria Partecipativa project with two main activities. The first one is the grassroots level of activities related to the sharing of the hand-held sensors. This should continue to be targeted at the widest possible range of users, with a priority for groups which are not consolidated experts in night sky quality.

The second activity is the maintenance of the automated data harvesting service available through CORDILIT. In this case, having made a substantial investment in the creation of a quite generalized data model, it will be quite easy for us to add new monitoring stations from organizations in Italy and abroad, as well as to add new types of sensors.

In parallel to these two activities, we are evaluating a limited set of dissemination events. In the past years, a substantial amount of the energies invested in the project was required to promote an unusual activity (with a neologism as a name, since the term “buiometria” was created by us) for a broad audience. After over four years in the creation of an identity for the project, we can say that, while remaining a niche initiative, the BMP project has gained recognition in a wide range of users, with frequent national media presence, and that the activities we proposed should no longer be seen as “progressive”. This idea is also supported by the growing diffusion projects and initiatives which are using various of the approaches that BMP adopted in 2008 (e.g. the citizen science approach for data acquisition, or the use of Open data license for data sharing).

The challenge for the future is to identify the contexts and the organizations which will allow the BMP team to keep alive the “basic level” of the project, for which the required resources are quite well quantified after four years of operation. In parallel, the ideas which will sound as new (because we do have new ideas to further grow the project), or initiatives which will require a significant amount of resources, above the basic maintenance level, should be seen as independent projects.

Before the end of the Winter, we should be able to share a plan of activities for the rest of the year.

Supporting the project

The BuioMetria Partecipativa project is maintaining a prevailing self-funded nature. We are periodically monitoring opportunities for funding, but if you feel that our initiatives on awareness raising on light pollution and on night sky quality data collection are interesting and/or useful to you, please consider supporting the project with a donation. You will find more instructions about this at the page: http://www.attivarti.org/?page_id=886.