Recent Outcomes of the Investigations on Guglielmo Marconi Supposed Experiments in Switzerland

Giuseppe Pelosi, Stefano Selleri
Department of Information Engineering
University of Florence
Via di S. Marta, 3, Florence, Italy
{giuseppe.pelosi, stefano.selleri}@unifi.it

Abstract – History can be a tricky subject, even when the temporal distance from the events is as short as a couple of lifespans. In this contribution the main steps carried out by IEEE which led to the restoration of the historical truth on the first radio experiments by Marconi are briefly recollected. IEEE proved not only his important worldwide role in promoting knowledge and culture in electrical and electronic topics, but also ethical and moral integrity.

Keywords—History, Radio, Guglielmo Marconi

I. INTRODUCTION

The work of an historian is a difficult task. Primary sources are sometimes lost or scattered around many places. Secondary sources often reports not only facts but also the views of the author, which sometimes might emphasize some aspects and reduce the importance of others.
Secondary sources might also be based on "false memories," collected by interviewing people in their old age on what they have witnessed when young. It may happen, when people recall experiences happened long ago, that they truly believe to their own memories, and yet independent evidence shows those same memories to be untrue. Spawning these false memories can be done in perfect good faith. It is certainly not a fraudulent act, as it might be to deliberately manipulate history to some aim, like claiming priority in some field for nationalism or propaganda, yet it makes establishing truth more complex.
This happens also for electrical telecommunications history, a subject only a couple of century old, as the paradigmatic case presented in this contribution illustrates, summarizing some historical facts proved in [1] and giving an account of the epilogue.

II. ITALY AND SWITZERLAND

Primary sources report that Guglielmo Marconi (Bologna, April 25, 1874 – Rome July 20, 1937 – Fig. 1) successfully attained close range radio links in summer 1895 within his house walls. The first long distance radio link was then officially attained when his receiver, placed behind Celestini hill several hundred meters away and out of the line of sight, buzzed in reply to Marconi's transmitter emissions, generated in Villa Griffone, (Pontecchio Marconi, Bologna, Italy). The date of this experiment is December 8, 1895 [2].
Some eighty years later it happened that the Swiss Maurice Gay-Balmaz [1885-1975], in at least three interviews (1965, 1968 and 1971) claimed to have been, at the age of about ten, an assistant to Marconi in some radio experiments in his hometown of Salvan, in Switzerland.
Indeed, based on this claims, a plaque commemorating such an event was present in Salvan for some time, with the date 1896 – compatible with Gay-Balzman being 10 – a proof being a photo published on a 1976 newspaper [3] and published also more recently (Fig. 2). Yet twenty years later the date of the supposed experiments by Marconi in Salvan shifted to summer1895 [4], hence months before the official December 1895 date and superimposing with Marconi's very first experiments in Pontecchio.
This was overlooked by many at the beginning, yet subsequent publications, by the same authors, further promoted this view.
Indeed an one-year mistake is possible even in so close events. Sticking to Marconi, a plaque in the Santuario di Oropa, in Italy reported the presence of Marconi there in summer 1894, yet Marconi himself in a note wrote down that he was there in 1895 [1]. This plaque, placed shortly after Marconi's death, in 1937, is still there and the one year shift could even have been a fraudulent action, by the Italian Nationalist government of those times, to "defend" Marconi's discoveries against Popov's and Tesla priority claims [1]. It is somewhat ironic that this one-year anticipation in Oropa plaque was taken as a basis for the same one-year anticipation in Salvan plaque [5].

Fig. 1 A portrait of Guglielmo Marconi in his youth.

Authors are also members of the IEEE History Activity Committee, Italy Section

978-1-7281-5058-1/19/$31.00 ©2019 IEEE

Fig. 2 – First plaque in Salvan, citing Marconi and the year 1896 from [5].

Things grew up and the Swiss promoted the events in Salvan up to obtaining, in 2003, from the IEEE a commemorative plaque (Milestone) celebrating the experiments made by Guglielmo Marconi in Salvan in the summer of 1895 (Fig. 3). The 2003 dedication event in Salvan was attended by the President of the Swiss Republic Pascal Couchepin, the President of the Marconi Foundation in Pontecchio (Italy), Gabriele Falciasecca, and Marconi's daughter, Elettra Marconi Giovannelli [6]. This commemoration did not pass unnoticed. Some complaints arose [7], and some reaffirmations of the presence of Marconi in Salvan published in reply [8,9,5].

Subsequently, in September 2008, the International Union of Telecommunications (ITU) of the UN awarded Salvan the plate for "World Heritage of Telecommunications" The ceremony - attended by both the President of the Swiss Confederation, Pascal Couchepin, and the Secretary General of the ITU, Hamadoun Touré - aroused this time numerous protests from the Italian scientific world. The Italian press on that occasion gave great prominence to the story, and the Italian ambassador in Bern did not participate to the ceremony (Fig. 4).

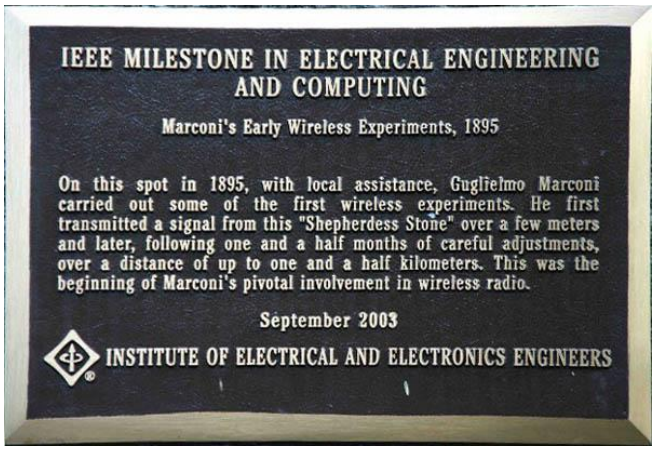

Fig. 3 – The 2003 IEEE Milestone in Salvan.

In that same year, careful investigations in all Marconi's archives were carried out, mainly by Marilena Fabbri, Major of the city of Sasso Marconi, the municipality to which Pontecchio belongs, and by one of the authors. This careful research, lasted several years, brought to light important documents demonstrating not just a one year error in the presence of Guglielmo Marconi in Salvan, but indeed that he was never there in those years!

Actually, it was found and proved that Guglielmo Marconi could not exit Italy, being in the age range at which compulsory military service was to be performed. In 1985 he was not in the Navy, yet, but was registered in his class. As a young male not having served in the army yet, he needed to apply for an official written permission by the military authority to exit Italy. Records shows [1] that his only request of such a permission was to go to London on January 24, 1896. He will finally enter the Navy from December 1900 to 1901, to be dislocated in the London embassy.

As a further proof, expense records of Marconi's family, which were overly accurate, give details of all travelling costs, even for trips as short as going from Pontecchio to Bologna for few cents. Yet, no expenses to travel to Switzerland are there [1].

Fig. 4 – The 2008 ITU plate.

III. IEEE Actions

These proofs, with many others were collected in [1] and presented to various institutions for reestablishing historical truth: there might have been radio experiments in Salvan, maybe in 1896 as the first plaque, now removed, (Fig. 2) says, and these might have been witnessed by Gay-Balzman, but the experimenter could not have been Guglielmo Marconi.

Among the different institutions addressee of this plea, the IEEE promptly started to work. After a careful investigation of the proofs provided, the IEEE has therefore modified the wordings on the Milestone given to Salvan from the former "Marconi's Early Wireless Experiments, 1895" to "Early Swiss Wireless Experiments, 1897" – since further investigation showed that Gay-Balmaz was probably 12 and not 10. IEEE believes that the experimenter could have been Gustav Engisch, inspired by Marconi, but this is not certain and the new Milestone avoids to name him [9]. This complex correction procedure was finalized by the IEEE board of Directors as it is the procedure when an incorrect citation is found.

It is a great merit of the IEEE that of having re-established the truth by deciding to replace, in 2015, the old plaque with the new one.

Actually, notwithstanding this decision, the old plaque is still in show in Salvan, and the amended one appears to be

still to be ordered from the foundry, for reasons which ought to be investigated.

Furthermore, the problem of the recognition given to Salvan by the ITU remains completely open, since no official step has been made. However, the commitment of the current General Secretary of the ITU to solve the problem soon remains. In a letter (dated Geneve, 25 October 2017) the General Secretary of the ITU, Houlin Zhao, writes to Marilena Fabbri (since 2012 member of the Italian Parliament) that [10]:

As regards your request to remove all reference to G. Marconi from the commemorative plaque laid on 26 September 2008 in the Swiss municipality of Salvan, we have examined in great detail the dossier you submitted, and we could consider taking measures along the lines of those adopted at the end of 2015 by the IEEE

IV. Conclusions

An exemplary case of how the work of an historian can be tricky and how careful investigation of primary source is absolutely necessary to establish historical truth has been presented, underlying the importance that scientific societies, as IEEE do consider with the due attention and equity these sources. This virtuous path has been initiated but it is still to be completed.

Acknowledgments

The author wishes to thank Hon. Marilena Fabbri for her activity in collecting sources and promoting their analysis. The authors are also grateful to Anthony C. Davis, Emeritus Professor, King's College London and to Hugo Wyss, IEEE Life Members Activities coordinator, IEEE Switzerland section, for having contributed useful discussions and bits of information.

References

[1] M. Fabbri, G. Pelosi, "Guglielmo Marconi: Some New Documents Covering the Years 1894–1896," *IEEE Antennas and Propagation Magazine*, vol. 55, no. 2, pp. 291-302, April 2013.

[2] G. Marconi *Scritti di Guglielmo Marconi*, collection, Reale Accademia d'Italia, Roma, 1941.

[3] R. Biondi, "A Salvan alla Pierre Bergère, i primi esperimenti di Marconi, [At Salvan on Bergère Stone, the first experiments by Marconi]" *Gazzetta di Mantova*, February 13, 1976.

[4] F. Gardiol, "Marconi in Switzerland," *IEEE Antennas and Propagation Magazine*, vol. 38, no. 6, pp. 68-69, Dec. 1996.

[5] F. Gardiol, Y. Fournier, "Marconi in Switzerland True story or fairy tale ?" 2008 IEEE History of Telecommunications Conference, (HISTELCOM), Paris, 2008, pp. 12-19.

[6] F. Gandiol, "Inauguration of IEEE Marconi Milestone in Salvan," in *IEEE Antennas and Propagation Magazine*, vol. 45, no. 5, pp. 84-85, Oct. 2003.

[7] B. Valotti, "A Letter to Prof. Fred Gardiol Concerning the Supposed Experiments of Guglielmo Marconi at Salvan," *IEEE Antennas and Propagation Magazine*, vol. 49, no. 1, pp. 241-243, Feb. 2007.

[8] F. Gardiol, Y. Fournier, "Reply from Profs. Fred Gardiol and Yves Fournier concerning the experiments of Guglielmo Marconi at Salvan," *IEEE Antennas and Propagation Magazine*, vol. 49, no. 1, pp. 243-244, Feb. 2007.

[9] https://ethw.org/Milestones:Early_Swiss_Wireless_Experiments,_1897.

[10] M. Fabbri, G. Pelosi, "Marconi e il caso Salvan, verso l'epilogo di un falso storico [Marconi and Salvan case, towards the epilogue of a historical falsehood]," CDR of the Italian Parliament, Rome, 2018