

# ON THE HISTORY OF THE PHONETIC INSTITUTE OF THE UNIVERSITE DE PARIS FROM 1911 TO 1950

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## ABSTRACT

After the recent closure of the building hosting the Institut de Phonétique since 1928 at the 19 rue des Bernardins in Paris, we aim in this paper to retrace some of the key aspects of this historical location whose contribution to the development of Phonetic Sciences in France is no longer to be demonstrated. We pursue this endeavour with three main goals: to reconstruct the history of the development of the institute from its establishment in a fruitful context of emergence of experimental phonetics in France up to after WW2; to acknowledge its contribution in the training of a large number of students and future phoneticians; to acknowledge the large diversity of experimental research that was carried out. Finally, we aim to shed light on the contribution of a less renowned female phonetician, Marguerite Durand, whose contribution to the history of the institute has been largely overlooked.

**Keywords:** Institut de Phonétique, Paris, experimental phonetics, history of phonetic sciences, Marguerite Durand.

## 1. INTRODUCTION

In June 2022, the moving of the current Laboratoire de Phonétique et Phonologie (CNRS/U. Sorbonne Nouvelle) from the 19 rue des Bernardins to its new location has led to the discovery of a large number of documents: registers, library cards, administrative reports, student theses. This article is based on these documents, and aims at retracing some of the key stages in the history of the Institut de Phonétique from its creation in 1911 to 1950.

## 2. AT THE ORIGIN OF THE INSTITUTE

At the end of the 19<sup>th</sup> century, research in experimental and instrumental phonetics in the Parisian landscape was vibrant. In 1881, Abbé Rousselot established at the Catholic Institute of Paris the first phonetics laboratory worldwide, obtained a chair in experimental phonetics in 1889, and developed another laboratory at Collège de France from 1897. Work in experimental phonetics in these years was stimulated by numerous contacts with international phoneticians visiting this laboratory, as well as by various collaborations with other

institutions in Paris (Alliance Française, National Institute for the Deaf and Dumb, and several clinical institutions).

In 1911, the Institut de Phonétique of the Université de Paris was created at the Sorbonne [1]. Its foundation was made possible by Ferdinand Brunot, who, inspired by Abbé Rousselot's work and teaching, held progressist views as a fervent defensor of phonetics. Ferdinand Brunot had a strong influence at the academic and political levels: he was mayor of the 14<sup>th</sup> arrondissement from 1910 to 1919, dean of the Faculté des Lettres of Université de Paris from 1919-1928, and founder of the first school dedicated to the teachers of French as a foreign language in 1920. The Institut de Phonétique was part of a larger project between the Université de Paris, the city of Paris, and the Pathé firm. The intent was to build a Phonetics Institute along with Archives de la Parole, a speech archive, as was being done at the time in several other countries. The Institut de Phonétique and the Archives de la Parole were inaugurated at the Sorbonne on June 3<sup>rd</sup> 1911, with a speech of its future director - F. Brunot – whose vision for the newly created institution integrated both the preservation of the sound of living speech ('les sons de la parole vivante'), and 'the definitive creation of a new science: phonetics, which is related to acoustics, physiology, linguistics, but which is not to be confused with any of them and which must have its own methods, its own instruments and its own scientists.' (our translation, see [2] for the original text in French and [3] for a phonogram recording of some extracts).

The Archives de la Parole, available in part online [4] include several field trips of F. Brunot equipped by E. Pathé with special double horn phonograph (Ardennes in 1912, Berry and Limousin in 1913), field trips pursued after WW1 by Hubert Pernot (in Roumania in 1928 (Figure 2), in Czechoslovakia in 1929 or Greece in 1930), and by recordings made at the Institut de Phonétique. They included recordings of famous people (such as Guillaume Apollinaire, Emile Durheim, Alfred Dreyfus, Cécile Sorel), academics, speakers of French regional languages/dialects as well as recordings of pathological voices.

The Institut de Phonétique and the Archives de la Parole were directed by F. Brunot until 1920, Jean Poirot until 1924, Hubert Pernot until 1930. Pierre Fouché who took the direction in 1930, split the two institutions in 1932, taking the direction of the Institut till 1962, and leaving the direction of the Archives de la Parole to Roger Dévigne.

In the years 1925-26 the status of the Institute changed [1]. While it was still run by the Faculty of letters (Faculté des Lettres), it was officially attached to the Faculty of Sciences and Faculty of Medicine. In 1925 it incorporated the Laboratoire de la Parole of Hector-Victor Marichelle which originated from the National Institution for the Deaf and Dumb.

In 1926, the Institut de Phonétique and the Archives de la Parole benefited from the project of creating a Museum of Speech and Gesture in Paris on the initiative of André Gayot, and in 1928, and moved into the building located at 19 rue des Bernardins, allocated by the city of Paris. At the same time, the Archives de la Parole became the Musée du Geste et de la Parole, although the ‘Gesture’ part of the museum left no trace.

It was in 1966 that the Institut de Phonétique and the Institut de Linguistique of the Université de Paris merged to give place to the ‘Institut de Linguistique et Phonétique Générales et Appliquées’ (ILPGA), which, when the Université de Paris was divided after the 1968 riots, joined the Université Sorbonne-Nouvelle (Paris 3).



**Figure 1:** Plaque on the front of the building, 19 rue des Bernardins, Paris.

## 2. PHONETIC TRAINING AT THE INSTITUT DE PHONÉTIQUE DE PARIS

From 1920, the activity of the Institut de Phonétique, which, since its creation, was essentially geared towards the recording of the sound archives, moved to an activity of teaching experimental phonetics. For this purpose, F. Brunot pushed for the creation of an Assistant Professor position in phonetics at the Université de Paris. At that time, a chair of Experimental Phonetics had been created since 1890 at the Catholic Institute of Paris for Abbé Rousselot

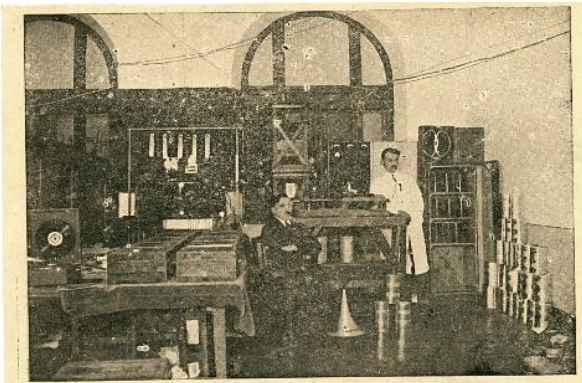
who, in 1922, two years before his death, obtained a chair in Phonetics at Collège de France. This chair disappeared with him. The Maître de Conférence position in phonetics created in 1920 at the Université de Paris was thus part of the plan envisioned by F. Brunot at the inauguration of the Institut de Phonétique to consolidate the creation of a new discipline. The position was entrusted to J. Poirot (from 1920 to his death in 1924), then to H. Pernot (up to 1930), and to P. Fouché who became Professor of Phonetics in 1937 until his retirement in 1962.

The phonetic courses and laboratory work were first given at the Sorbonne, and later at 19 rue des Bernardins starting from 1928. The classes were open to all the students registered in one of the Faculties of the Université de Paris. After 2 semesters, students could apply for one of two diplomas: the Certificat de Licence de Phonétique (created in 1921), and the Diplôme de Phonétique de l'Université de Paris (from 1923) [5]. The exams were mainly for students, French or not, intending to study linguistics or speech and language remediation. Both diplomas were defended in front of a jury composed of three professors, with a written part which was eliminatory and an oral part. During the oral part, the candidate had to defend an experimental work (for the Certificat) and a thesis of experimental phonetics (for the Diplôme), accompanied by two question-and-answer oral sessions (in general phonetics and experimental phonetics for the Certificat; in general phonetics and descriptive and historical phonetics for the Diplôme).

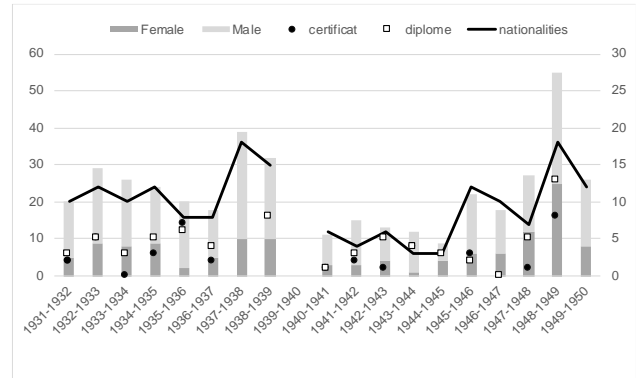
The curriculum of the training in phonetics consisted of 5 main courses [5]. The course of General Phonetics was very similar to a contemporary curriculum (articulation, phonation, audition. Phonemes, syllables, phonetic word. Combinatory processes and phonetic changes. Suprasegmentals). The course of Historical Phonetics, taught as a pro-seminar each year around a different question, aimed at applying the basic phonetic concepts to Romance languages evolution, with a focus on the detailed phonetic mechanisms and rigorous methods of analyses. The course of Experimental phonetics aimed at introducing the students to the use of instruments (see section 3). Practical training sessions took place every day of the week in the laboratory with the help of an assistant. Experimental works had to be presented every week during the first semester and during the second semester, the candidates worked on their own research topics for a thesis to be presented for the diploma (see below).

Starting from 1933, a course in Speech and Language Pathology was taught at the Institut by Dr André Ombredane. In parallel, was established an experimental section dedicated to remediation by

Mme Georges Lamarque, professor at the Institute of Deaf and Dumb.



**Figure 2.** Laboratory set-up in Bucarest for the recording campaign in Romania by H. Pernot, 1928 (unknown source).



**Figure 3:** Left axis: Number of students (left axis), split by sex, registered at the Institut de Phonétique between 1931 and 1950. Right axis: Number of Certificats and Diplômes delivered and number of nationalities of the students per year.

In parallel to the training in phonetic sciences, the Institut de Phonétique also provided a training in French pronunciation with ‘special courses’ of one semester leading to a “Certificat d’étude pratique de prononciation française” and summer courses during July or August leading to an ‘examen de fin de cours de vacances’. These French pronunciation courses had a great success, with 3609 students from around the world enrolled between 1931-39 and 1946-49 (these courses stopped during WW2).

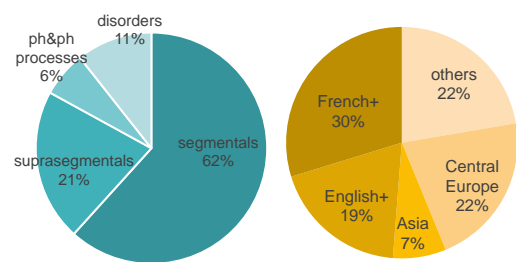
The students trained in the phonetic curriculum at the Phonetic institute were less numerous, but also originated from a large number of countries. In his report of the year 1926-1927, H. Pernot [1] mentioned 53 students, from 18 nationalities, mostly European. An even larger diversity in the origins of the students was found in the 1931-1950 registers, with students from all around the world. Figure 3 illustrates the distribution of the 416 students listed in these registers.

Quite a few female students were trained and graduated, even though the vast majority of students were male. Among these students were such famous names as André Haudricourt, Georges Straka, Pierre Delattre, John Catford, Bertil Malmberg, Pierre Léon. An expected drop of students occurred during the years of WW2, but the training continued during the occupation of Paris, and we sadly found a few names of students that had been deported.

One point of interest is the large number of students who got training in this curriculum without registering to any diploma. Indeed, as illustrated in Figure 3, only a handful of diplomas (Certificat or Diplôme) were delivered each year. According to P. Fouché [5] this low number of candidates and of graduations was explained by the high standards of these exams.

### 3. RESEARCH IN EXPERIMENTAL PHONETICS ILLUSTRATED BY STUDENT WORKS AT THE INSTITUTE

The data presented in this section originates from our analysis of documents found: library cards, listings of the students’ research titles in the registers, and original students research manuscripts defended at the Institute between 1923 to 1950. More than 800 theses covering 1923 to about 1990 had to be sorted. We identified more than 140 students’ theses between 1923 and 1950. Figure 4 presents the distribution of these theses.



**Figure 4:** Distribution of the 1923-1950 students’ theses in terms of research questions and languages studied.

Most of the theses addressed questions related to sound articulations (segmentals), some reported on tonal, rhythmic or intonative properties (suprasegmentals), a few on phonetic and phonological processes (assimilation, epenthesis, etc.), and still others on speech disorders (deaf speech, developmental disorders, cleft palate, aphasia, etc.). Over 24 languages and language varieties were studied thanks to the various nationalities of the students. Indeed, many of the theses reported on the students’ own productions. One example of such theses for the Certificat was a

work on consonants and vowels of New York published in the *Revue de Phonétique* in 1928 [6]. Research in experimental phonetics was done on several types of instruments, as described by P. Fouché in his inventory of a fully equipped lab in 1935 [5]. Thanks to the funding provided by E. Pathé in 1911 to the Archives de la Parole, the Institut was equipped with several types of phonographs. Some equipments belonged to Rousselot and to Adolphe Zund-Bürget. J. Poirot came in 1920 with his labiograph, and he directed the doctoral research of Liu Fu, using a recording cylinder (built by Boulitte), equipped with an electric tuning fork and a manometric mask. The result was a pioneering thesis on the phonetics of Chinese tones [7]. From 1926, the merging with the speech laboratory of the Deaf and Dumb made accessible the Lioregraph. Palatography was common in students' work documenting their own pronunciation along with photographs. Cinematography was sporadically used from 1933. All the experimentations were done under the supervision of an assistant: M. Schramek till 1929, then Marguerite Durand, whose work is the focus of the next section.

#### 4. SPOT LIGHT ON THE CONTRIBUTION OF MARGUERITE DURAND

Marguerite Durand (1904-1962) obtained her Diplôme in phonetics in 1928 and was hired as an assistant in Experimental Phonetics, and then as an 'Attaché de l'Institut' from 1929 until the end of her career. She never held an academic position despite her doctoral degree (in 1936), her publications, her teaching of the Experimental Phonetics course, and the supervision of many students' theses.

Besides articles ([8], [9], [10], [11], [12], [13], [14], [15]), M. Durand authored or co-authored four books before WW2, each of which was an important contribution to the field.

The first books of M. Durand [16], [17] which were published in 1936, concerned Parisian French viewed in its diversity within and around Paris. The first book included not only a phonetic study with several speakers but also a large-scale dialectological study of masculine and feminine adjectives (and some pronouns) with 400 speakers, showing that old forms, such as [kχỹ] cru (masc.) 'raw' / [kχỹə] or [kχỹj] crue (femin.) 'raw') were still present even in villages of the Paris region. The second book was a very detailed study of consonant durations, investigating up to 13 contexts (segmental contexts, position in clusters, in words, in sentences, etc.). The findings concerned the temporal organization of clusters and the influence of prosody and constituents on consonant durations.

In 1939, she co-authored a book on phonetic/phonological errors in various forms of aphasia [18] with Théophile Alajouanine, a Professor of medicine at the Paris faculty and André Ombredane, Assistant director of the 'Laboratoire de psycho-biologie de l'enfant' at the EPHE, Paris. Similarly to R. Jakobson [19] at the same period, the authors viewed the 'phonetic disintegration' in pathologies as a mirror image of the child's acquisition. Phonetic investigations of patients' speech, with a noticeable attention to coarticulation, were performed by M. Durand. This book was pioneering in its integration of medical, psychological and phonetic approaches to improve the characterization and understanding of the disorders.

M. Durand's book on long and short vowels was published in 1946 [20], though it had been finished before the war. The book aimed at investigating the nature of the quantity contrast in a large diversity of languages, such as American English, Breton, Dutch, Swedish, Hungarian, Estonian, Lebanese Arabic, Thai, and several dialects of Chinese. Data were taken from published works, from her own investigations and extensively from those of students that she had supervised (such as Bertil Malmberg or Joe Larochette). The methodology to question the nature of the contrast between short and long vowels using a phonetic approach and the carefully worked out data for individual languages were the two main contributions of this book. Her attempt to capture the cross-linguistic nature of the contrast – which in her mind was not durational in essence – was controversial and is now outdated.

#### 5. CONCLUSION

The analysis and archiving of the Institut de Phonétique documents are far from being complete. Next steps will be to process the content of the theses and relate them to the instruments and methodologies used at the Institut. While most of these instruments have already been donated to the Bibliothèque Nationale de France in 2000 (coll. Charles Cros [21], along with the Archives de la Parole), the opening of the attic has allowed the discovery of other instruments which are currently restored.

#### 6. ACKNOWLEDGEMENTS

This work is dedicated to all past members of the 'Institut des Bernardins', in memory of this inspiring location.

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