

# Creating a “Sound Atlas” collaboratively: Hubert Pernot, Philippe Stern, Pathé, and Geuthner

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*“At a time when our artistic sensibility is opening to ever more distant horizons, when certain barriers are falling away, and we seek to commune with all ways of feeling on Earth, music is getting little attention” (Stern, 1928, p. 106).*

In 1900, the study of foreign cultures shifted to those not “contaminated by European influences—“the races most different from ours and the people most distant from us” (Tiersot, 1900, 324).<sup>2</sup> The French musical ethnographer, Julien Tiersot, saw all kinds of music as “taking part in the greater good of the general history and art of humanity” and non-western music as “an occasion to study the musical forms specific to races for whom art is understood differently than ours” (Tiersot, 1889, p.1; 1903e, p.106). With desire to understand human differences came efforts to collect, conserve, fix, study, publish, and disseminate this knowledge. Needed, with the help of linguists, historians, and music professionals, was a scientific approach. In his attempts at transcription, however, Tiersot was sometimes stymied. The sound produced by Dahomean drums seemed

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<sup>2</sup> On racial stereotypes as emblems of culture and ways of understanding music as racial specimens, see Pasler, 2006, 2007, and 2012.

like "noise that was impossible to notate." An eight-measure theme he transcribed could not be understood without the "harsh and guttural voices of the indigenous." Making "no progress" in his understanding of Senegalese music, Tiersot renounced transcription altogether (Tiersot, 1903a, p.25, b, p. 34, c, p. 41-42, d, p. 66).

With the advent of recordings came new approaches, allowing transcribers to analyze the nature of intonation and rhythm. Compare, for example, Tiersot's transcriptions of Tunisian music from interviews with musicians at the 1889 Paris Universal Exhibition with Erich Hornbostel's from wax cylinders made in Tunisia and Berlin, 1903-04.<sup>3</sup> Both ethnographers perceived opening formulas, recurring melodic ideas, and variations in this music. Tiersot notes that the last phrase of his example is to be sung "freely," Hornbostel by "a kind of free improvisation." However, working from recordings, Hornbostel uses grace notes, pluses, dots, and "gliss." over certain notes and thirty-second note melismas to suggest subtle intonational movements. In one example, he notated six measures in 3/4 in an attempt to capture a short melisma that lasts only a second or two on the recording (now in Berlin's Phonogramm-Archiv). But he too threw up his arms when this "highly particular intonation" was "too unsteady to be measured," such as in a Tunisian wedding song (Tiersot, 1889, p. 83-85; Hornbostel, 1906/1975, p. 337, 339; Pasler, 2012b, p. 69-73). Such experiences suggest what transcribers can learn about a musical work or performance through transcription, particularly regarding music's structure. They also call for acknowledging limits on what one can control and, therefore, possess.

Scholars have examined recordings in Berlin's Phonogramm-Archiv for what they reveal about musical origins (Rehding 2000) and human evolution (Ames 2003). However, analogous French archives have largely eluded scholarly access and study. Léon Azoulay's 400 wax cylinder recordings of the speech, song, and instrumental music at the 1900 Paris Exhibition, preceding Hornbostel's work in Berlin, have only recently come to light (Pasler 2014), so too recordings made at the 1931 Colonial Exhibi-

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<sup>3</sup> Hornbostel's transcriptions were based on both P. Träger's wax cylinder recordings of a traveling Tunisian troupe in Berlin in fall 1903 and his own recordings in Berlin in March 1904.

tion in Paris (Cordereix 2006). These have raised important questions about the nature of music and notation of non-western genres. Azoulay argued that, just as photography brought about a revolution in knowledge and human progress, so too would the “fixing of sounds and noises” by the phonograph. As “sounds and noises, simple and complex, are an immense and unknown source of information,” the phonograph would allow for studies of which traditional linguistics was incapable. However, Azoulay went further. Facing the crevices between the oral and the written and coming to grips with the materiality of human difference as manifested in voice, language, and music, Azoulay, a physician, amateur linguist from Algeria, and member of the Société d’anthropologie, attempted to fix these performances through “non-systematic” transcriptions and “semi-literal” translations. In comparing the recordings, recently digitized by CREM (Université Paris Nanterre), with the transcriptions and translations at the Muséum national de l’Histoire naturelle, we encounter Azoulay struggling with the untranslatability that inevitably characterized such a context and acknowledging that what he heard was not always reducible to what he could notate (Azoulay, 1900, p. 712-15; Pasler, 2014, p. 9,20).

Azoulay’s project had significant implications. Understanding what one hears and notating it depends on one’s linguistic and cultural competence. The fundamentally ungraspable qualities of the oral required grappling with what could not be easily notated. And disseminating this knowledge created the impetus for new institutions, beginning with the Musée phonographique. Azoulay was appointed its curator in 1901, but soon returned to Algiers. To house such collections, in 1911 the recording company Pathé, founded in 1894 and wishing to expand its collections, offered to support and equip a successor, the Archives de la Parole, at the Université de Paris, apparently in return for making its recordings. In 1912, its director, the linguist Ferdinand Brunot, began to collect spoken and sung voices for a “National Sound Atlas” of French dialects. In 1920, this split into the Institut de phonétique and the Archives. Director of both in 1924, the linguist Hubert Pernot, professor of modern Greek, turned to folk traditions beyond France. In 1928 the Archives became the Musée de la parole et du geste, a “laboratory for sound research.”

## Preparing a “Music Library”

The first international, interdisciplinary conference on folk traditions took place in Prague in October 1928. Folklore specialists gathered from Europe to Japan. To insure this music’s survival, organizers called for not only analysis, but also recording and notation. Pernot presented two papers, one proposing a method for recording music and folksong, the other on the Musée de la Parole. He had recently convinced the city of Paris to build a recording studio and sound library there for recordings he had made since 1898-99, including of Greek singers, Brazilian and Turkish songs, and Zoulu dialects, plus music and stories in African languages (Wolof, Mandingue, Baoulé) and Russian. Pernot recorded in Paris in 1926-27. It would also collect those acquired from other ethnographers and institutions, the voices of famous people, and performances by visiting musicians.

After the conference, Pernot began fieldwork in Romania and Czechoslovakia and later returned to Greece, bringing musically trained assistants, including Mady Lavergne. From 1928-1930, they made 564 double-sided recordings of folk tales, songs, and instrumental music, by 1932, 11,000 recordings, many of these currently at the BnF. As suggested by Azoulay, these served as a foundation for local sound ethnography and could be used to teach travelers, missionaries, and future colonial administrators, requiring only limited competence yet contributing to a Sound Atlas of France overseas (Pasler, 2014, p. 22).

Philippe Stern, also attending the Prague conference, was member of the Société asiatique since 1919, employed at the Asian-oriented Musée Guimet (1921-27) and promoted to Indian and Cambodian art curator (1927-65). He also directed the Indochinese section of the Musée ethnographique du Trocadéro (1926-27). In 1927, this collection moved to the Musée Guimet, which became a public museum. There Stern created a music section focused on “distant music,” organized geographically. Besides his work on Southeast Asian dance in *Revue Musicale*, Stern had already published on Indian ragas in *Revue musicale* (1923) where he addressed their modes and analyzed musical examples. Realizing that “almost nothing has been published” about the music of “distant lands,” Stern decided to take action.

At the Prague conference and in an article published just before it (Stern, 1928),<sup>4</sup> Stern announced “La Bibliothèque musicale du Musée de la Parole,” a “Music Library” involving multi-faceted collaboration with not only the musicians and authors of these studies,<sup>5</sup> but also Pernot at the Musée de la Parole, Stern at the Musée Guimet, their assistants, Pathé Records, and Editions Geuthner (founded in 1901), the most important Orientalist publisher in France. Working closely with the Musée Guimet, Geuthner published its *Annales* (1925-38), wherein Stern’s *Le Bayon d’Angkor et l’évolution de l’art khmer* appeared in 1927. The “Musical Library,” put into place in 1927,<sup>6</sup> aimed to record, transcribe, and study “oriental, exotic, and distant music” from throughout the world, making these “unknown lands” “more easily accessible” to non-specialist music-lovers. The volumes were also intended for musicians, for whom they might “open new paths,” inspired by “coloration” of the modes, “complexity” of the rhythms, or “different ways of ornamenting a melody.” Stern envisaged “our sensitivity and our knowledge enhanced through this contact” (1928, p. 107-08), implicitly echoing Louis Bourgault-Ducoudray’s earlier call for incorporating modal scales for the sake of French musical progress (Pasler, 1991, p. 392, 2007).

For Stern, recordings and transcriptions should complement one another, the former transmitting the “exact ambiance that the written document cannot convey,” the latter offering a quantity of songs not possible on a single recording and presenting what can escape causal listening of records (Stern, 1928, p. 111). Both Pernot and Stern had limited experience in musical transcription. Still, the former included over 100 pages of musical examples in his 1902 Mission report, the latter numerous in Stern 1923. With the help of subject experts, their ambitions could soar. By 1928, “in press” was a volume of Brazilian folksongs; “in preparation” was music from Argentina, Greece, and North Arica, with more planned from India, China, Japan, and Cambodia. A second analytical series, also “in press,” would publish studies

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<sup>4</sup> This article was reprinted in Stern 1929.

<sup>5</sup> According to an undated letter, Stern noted that Mme Houston-Péret would be present in Prague for presentation of volume 1.

<sup>6</sup> See n. 7 below.

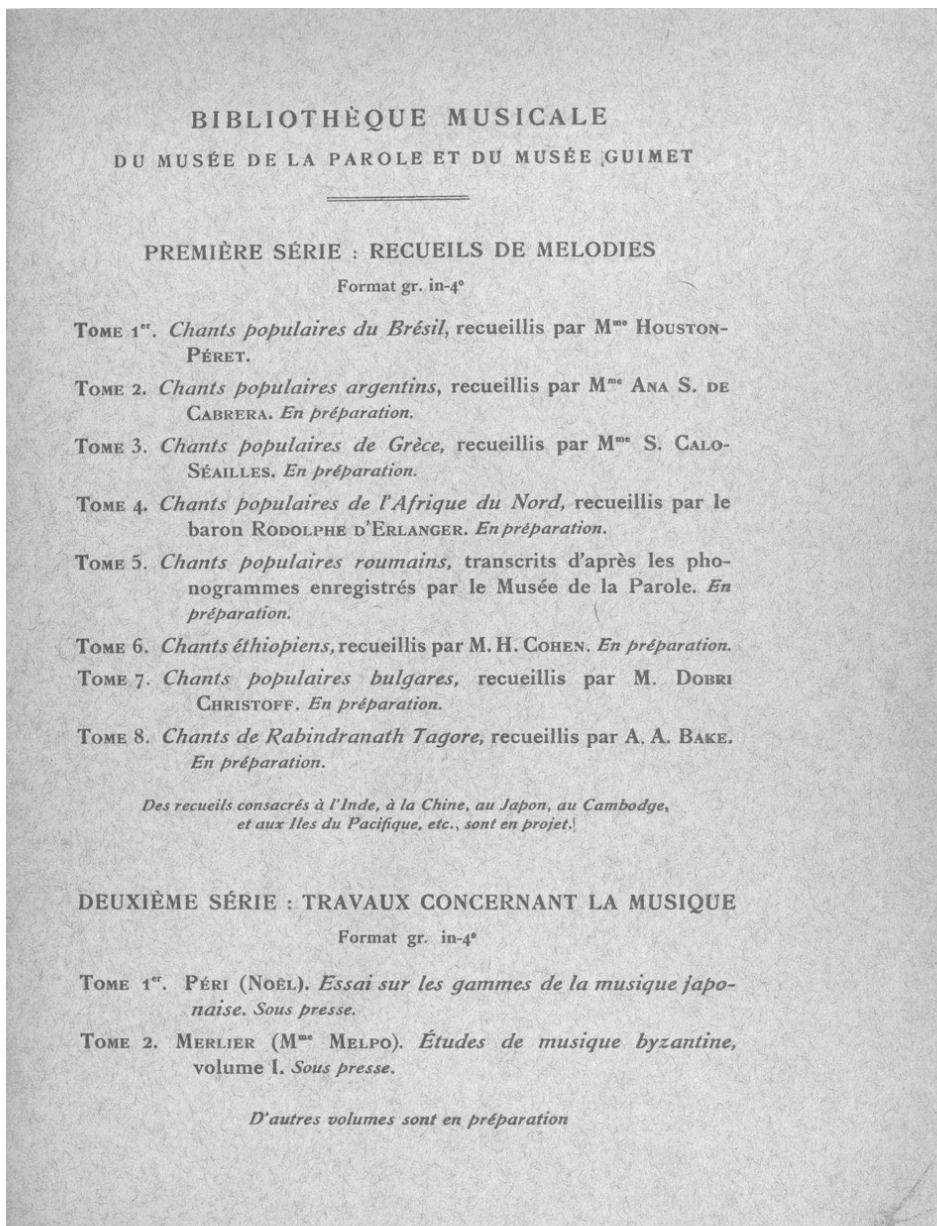


Illustration 1 : Publications and projected volumes  
of Stern's "Musical Library" in 1930.

of Japanese scales and Byzantine modes (Illustration 1). With cultural insiders as editor/authors, some being performers of this music, came competence and reliability of the work. In this way, Pernot and Stern addressed the need for trustworthy knowledge and its dissemination.

At Prague and in his related publications, Stern not only explained the need for recordings to “definitively save it,” as with cultural protection of Andalusian music in North Africa, but also discussed the problem of notating non-European music, which Tiersot expressed earlier (Stern, 1928, p. 133). Their transcriptions would rarely include harmonization. But how to make scores without deforming the original or proposing an entirely new system of notation, recognized by few? Recent experiments sought to support the oral tradition as memory aides, not function as veritable notation (Stern, 1928, p. 111). In his article on Indian ragas, Stern had first used a special sign over certain notes to lengthen their value or add an ornament (Stern, 1923, p. 17). Later he developed an extensive list of signs that could be placed near notes to account, at least in part, for what escaped traditional notation. Rather than Hornbostel, whose work he may not have known, Stern borrowed from the Siamese musician Grassi and common practices in the Orient. Stern intended them not to modify notation, but complement it, encouraging performance of normally non-notated accents, irregular rhythms, and especially timbres—guttural, nasal, contracted, somber, and other tones. These were conceived for voice, but applicable for instrumental sonorities (Stern, 1928, p. 110). The list in Stern 1930b was provided to editors to use, or not, in their transcriptions, sometimes with suggestions from Stern, and reproduced in “Music Library” volumes (Illustration 2). Stern also conceived volume introductions as collaborative. He authored that of volume 1 (Stern 1930), and co-authored with its editor that of volume 8 (see Illustration 1). They were meant to address style, genres, influences, age, regions where preserved, performers, a bibliography of recordings, books, and scores, and, in some cases, include discussion of the individual works.

## SIGNES SPÉCIAUX EMPLOYÉS

*Un certain nombre de signes sont adoptés pour tenter d'exprimer exactement les principales nuances de la musique orientale et de la musique populaire, que la notation ordinaire ne peut indiquer. Leur multiplicité relative ne saurait effrayer le lecteur, car il est rare qu'un grand nombre d'entre eux figurent dans le même chant, et l'indication écrite accompagne en général le signe nouveau, à son apparition. Le lecteur que ces signes embarrasseraient peut même, à la rigueur, ne pas tenir compte des signes de timbre et d'accent et ramener les signes de hauteur aux signes habituels dont ils dérivent : il reviendrait ainsi à l'écriture habituelle. Les signes nouveaux sont surajoutés ; ils ne modifient pas la notation, ils la complètent. On peut donc ne les suivre que partiellement, mais plus on les observera, plus on serrera de près la vérité, plus on retrouvera exactement la courbe, la sonorité et l'ambiance du chant.*

**INTENSITÉ.** Les signes habituels (forte, piano, etc.).

**HAUTEUR.** ♯ : élève le son de moins d'un demi-ton ( $\frac{1}{4}$  de ton approximativement).

♯ : élève le son d'un demi-ton (dièse ordinaire).

♯♯ : élève le son de plus d'un demi-ton et de moins d'un ton ( $\frac{3}{4}$  de ton approximativement).

♭ : abaisse le son de moins d'un demi-ton ( $\frac{1}{4}$  de ton approximativement).

♭ : abaisse le son d'un demi-ton (bémol ordinaire).

♭♭ : abaisse le son de plus d'un demi-ton et de moins d'un ton ( $\frac{3}{4}$  de ton approximativement).

**TIMBRE.** ▼ Guttural. Voix placée en arrière, un peu sombre.

▼ Guttural et serré. Gorge contractée (timbre constant dans le "Flamenco" andalou).

▽ Guttural clair. Voix placée un peu en arrière, mais jamais sombre ni serrée ; l'émission est très ouverte, claire, mais non poussée en avant.

⌋ Voix et parole forcées ; gorge, larynx légèrement contractés.

C'est le contraire d'une voix trop aisée, douceuse et fade.

Est constant dans le "guttural et serré" mais se trouve souvent ailleurs.

Donne une expression âpre, intense, contenue.

× Voix glapissante, perçante. Emission haute et forcée.

ℕ Nasal.

ℕ Légèrement nasal.

} S'emploie pour toute nasalisation musicale, même celle provoquée par les paroles.

∧ Voix de tête ou de fausset.

√ Voix de poitrine.

—| Bouche fermée. Sombre, assourdi, sans éclat.

□ Chant très articulé tendant vers la parole.

□ Presque complètement parlé.

×××× Peu net, pâteux, est dit parfois "savonné". Les notes s'interpénètrent. Les contours mélodiques sont enveloppés, imprécis, continus.

□□ Détonnant : tendance à baisser légèrement sans jamais atteindre, même de loin, un demi-ton. La mélodie est comme tirée vers les registres graves, d'où souvent une expression de mélancolie et de nostalgie.



Ce signe abaisse tout un groupe de notes successives : c'est donc une manière de chanter qui se rattache au style. On ne doit pas le confondre avec le signe qui abaisse de moins d'un demi-ton une note particulière et qui, ainsi, caractérise, d'une manière fugitive ou durable, une échelle, un mode.

~~~~~ Vibrant. Tremblement léger et rapide dont l'oscillation est loin d'atteindre un demi-ton. Même effet que la "voix céleste" de l'orgue.

**ACCENT.** — Signe habituel. Appui léger, sans à-coup, ne rompant pas la continuité de la ligne musicale.

——— Même signe, prolongé. Provoque un étirement de la note, pas assez marqué cependant pour changer sa valeur. C'est un très léger point d'orgue entraînant une liaison avec la note suivante.

^ Signe habituel. Appui vigoureux, parfois très marqué.

^ Note très appuyée, attaquée par en dessous.

^ } Combinaison { Note très appuyée, puis allongée, étirée.  
^ } de signes { Note attaquée par en dessous, très appuyée et étirée.

? Coup de glotte.

Les signes de timbre soulignent toute manière de chanter qui s'oppose à notre émission habituelle, claire, limpide, précise, séparant les notes, et à la voix placée en avant.

Quand ces signes ne modifient qu'une note, ils sont placés sur cette note. Quand ils modifient un groupe de notes, ils sont répétés ou suivis d'une ligne de points. Quand ils s'appliquent à toute la mélodie, ils sont inscrits à son début, au dessus de la portée, correspondant à l'armature de dièses ou de bémols de la clé.

Ces signes ont été conçus pour la voix, ils s'appliquent tout naturellement aux sonorités instrumentales correspondantes.

Un signe de timbre plus petit et barré annule l'effet du signe correspondant. On y a recours quand un même signe de timbre apparaît et disparaît à plusieurs reprises dans le même chant.

Les accents peuvent être redoublés et aussi se combiner entre eux.

Les ornements à peine perceptibles et aux contours peu nets sont parfois indiqués en petites notes entre parenthèses.

Les liaisons sont constantes dans la musique orientale : les principales seules sont indiquées. Souvent la première note, la note inférieure, est accentuée, car, en Orient, on ne tend pas vers le port de voix aisé, langoureux, à l'italienne, la voix retombant sur la note d'arrivée; au contraire, la voix souvent est un peu forcée, serrée sur la première note, accent qui sert de tremplin pour bondir vers la note suivante.

Les signes de hauteur ont été empruntés au système de M. Grassi. Des signes analogues, mais plutôt moins clairs, sont fréquemment employés en Orient.

**PRONONCIATION DES SIGNES ORTHOGRAPHIQUES DES CHANSONS BRÉSILIENNES**

| VOYELLES        | CONSONNES                                                                       |
|-----------------|---------------------------------------------------------------------------------|
| u = ou français | l finale, après les voyelles, se prononce comme l dure du slave ou de l'anglais |
| õ = on —        | r est fortement roulé                                                           |
| ê = ain —       | j = j français                                                                  |
| ã = an —        | ch, x = ch français                                                             |
| ĩ = i nasalisé  | nh = gn mouillé comme dans agneau                                               |
| ũ = ou nasalisé | lh = l mouillée                                                                 |
|                 | s, ç = s sourde                                                                 |
|                 | s entre deux voyelles = s (z) sonore.                                           |

2b

Illustration 2 (2a - 2b) : Reproduced in volumes of his "Musical Library," here volume 1, Stern's special signs could be used to indicate pitch and timbre variants in transcriptions.

The choice of music and volume editors, already in place by fall 1928, resonated with Pernot's research interests and field recordings, topics long of interest to Geuthner, and personal contacts. Following M. and Mme d'Harcourt's harmonizations of Inca music (Geuthner, 1925), the first projected contributions to the "Music Library" were by singers working in neighboring traditions, Elise Houston-Péret's popular songs from Brazil and Ana de Cabrera's from Argentina. Because Stern wanted Indian songs to complete the Brazilian collection and Houston-Péret knew none, Stern wrote to Roquette Pinto asking to use two from phonograms in his book, *Rondonia* (1912). Two monotone Indian songs, whose rhythm for Stern recalls Stravinsky's *Sacre du Printemps* (Stern, 1930a, p. 13), end the volume. Asked to address "Portuguese and Negro influences" (Stern, 1930a, p. 12-26), Houston-Péret included a Black song from Bahia, music at a Black festival and that sung by Mulattos in Rio, suggesting "Indian/Iberian miscegenation," and Iberian-influenced *modhinas*. In accompanying descriptions of each song, Houston-Péret addressed issues Stern wished addressed, such as origin, regional and social use, performers, their social condition, and genre.

Most of Houston-Péret's transcriptions incorporate Stern's signs, reproduced before the title page (Stern, 1930b). These were intended to permit performers to "reconstitute the style of singing," instead of serving as a "colorless skeleton." Some call for a "vigorous attack," lines of various length for "prolonging a note," and combination "attack and elongate;" others indicate a sound approximating a quarter-tone and an "exploding sound that pulls downward, often to express melancholy or nostalgia" (Houston-Péret, 1930, Stern, 1930b). The "Musical Library" was thus conceived as educational and stretching the boundaries of musical notation.

Many contributors envisaged for the "Musical Library" had direct connection with the music. Houston-Péret, well-known as a singer and transcriber of such songs, had recorded one of those in her volume; Cabrera knew her repertoire from having given multiple concerts of this repertoire in Paris in 1926. Mme Speranza Calo-Séailles's Greek songs (volume 3) began as recordings she made at the Archives de la Parole for

Pathé. Geuthner's publication of Macler's *Rapport mission scientifique en Roumanie* (1927) preceded field recordings made there in 1928 by Pernot's team, projected as volume 5 in 1933. Mady Lavergne, who helped record and transcribed them all, later published a selection of these. Along with Cohen's Ethiopian songs (volume 6) and Pernot's Bulgarian songs (volume 7), unfortunately none of these materialized.<sup>7</sup> Stern's archives document his hope to commission volumes of Caribbean and Flamenco music.

Not surprisingly, Geuthner had long-standing commitments to the countries of concern in two analytical volumes of the "Musical Library." Before Noël Péri's study of Japanese scales in 1934, Geuthner had published Japanese plays (1909-1920) and historical/sociological studies (1923, 1934). He also issued books on Byzantium theater (1931) and art (1932), this before Melpo Merlier, author of a 1926 article on Byzantine music and another musical assistant to Pernot in Greece, produced her study for Geuthner in 1936. Given Stern's interest in India and Geuthner's since his publication of stories in Hindu in 1912, A. Bake's Tagore songs (1935), in French and English, were published to permit comparison between Tagore's music and folk music of the Bengali people.

Erlanger's Tunisian melodies and Princess de Torhout's Central Asian Mongol songs came out in 1937, last in the "Musical Library." Erlanger 1937's introduction addresses scales and modes, with Stern's signs indicating three microtones between G (sol) and A (la), like other whole tones of the scale, here notated. Erlanger also discusses pentatonicism in music of Berber tribes and Negros. Commentary on each song follows. Stern's list of signs is again here reproduced, and the first two signs discussed above appear frequently over the vocal parts, others more rarely used here. The accompanying rhythms, "weak" and "strong," appear on separate staves.

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<sup>7</sup> Neither did other anticipated volumes: Native American music performed in Paris by Os-Ko-Mon, Pernot's Tahitian, Armenian, and Czechoslovakian songs.

## Earlier Work in North Africa and Baron d'Erlanger's *Mélodies tunisiennes*

Almost ten years transpired between initial consideration of a volume from Baron d'Erlanger for this “Music Library” in 1928 and its posthumous publication in 1937. In many ways, this project was part of a complex network of associations and activities in North Africa. Related interactions in North Africa began in October 1927. Gaumont, director of the film company, had received a letter from Prosper Ricard, director of the Service des Arts Indigènes for the Moroccan Protectorate, asking for recordings of Moroccan Arabic airs to give daily “auditions” at the Museum of Muslim Art, envisaged in Rabat (Ricard, 1927a). Since Ricard was currently in Paris, Gaumont sent him to Pernot, imagining that Pernot, in turn, would like to “augment” his Institut’s collection of recordings. In introducing Ricard to Pernot, Gaumont noted that, in his desire to “methodologically record all that relates to Moroccan music,” Ricard had received permission from Jean Gotteland, Education Director in Morocco, to collaborate with the Archives de la Parole and Pathé (Gaumont, 1927).

Accordingly, Pathé’s engineer would be sent from Paris and records distributed to each institution; Ricard would collect for Pernot’s Institut each kind of musical instrument; and Alexis Chottin would organize the repertoire and notate the music. Finally, “if Chottin finds interesting airs on these recordings, one can immediately make a volume and send it to Geuthner’s printer.” Note that Geuthner was publisher of Ricard’s four-volume *Corpus des tapis marocains* (1923-1934). After meeting in person the next day, Ricard and Pernot agreed to collaborate with Pathé on “recording and conserving 1. everything that relates to popular music, and 2. diverse forms of Moroccan speech (stories ...).” Since Geuthner had recently signed an agreement with the Institut de phonétique and future Musée de la parole to produce their “Music Library” of “exotic popular melodies,” “it would be possible to publish the melodies in question without expenses.” Pathé confirmed this a month later.<sup>8</sup>

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<sup>8</sup> See letters of Gaumont, Ricard, Pernot, and Pathé, 1927.

Unfortunately, no Moroccan volume joined the “Musical Library.” But soon these institutions began work with Pathé in the French colonies, sending representatives to scout options. Increasingly, such collaborations involved governments, as plans advanced since early 1929 for making recordings during the 1931 Exposition coloniale. In September 1929, the Université’s two institutes partnered with the Algerian government to co-fund a “phonographic mission” to record “songs, popular melodies, dialects, and all vocal and instrumental documents of a scientific, artistic, or pedagogical interest” (Pernot, 1929*b*). The Institut de Phonétique, collaborating with Pathé, would send staff and equipment; the colony would cover transportation, housing, and salaries. Pernot would direct the work, proposing to start in Algeria before continuing in Morocco.

That month, the Baron Rodolphe d’Erlanger, a great enthusiast for North-African music, visited Pernot in France. “Only in contact with colleagues in Berlin,” he was “pleasantly surprised at the discoveries made at the Institut de Phonétique and was prepared, at his expense, to bring singers and musicians from the center of the country, not yet influenced by ambient music” (Pernot 1929*c,d*). A month later, Pernot decided to embark on research in Tunisia, drafting an agreement with the Résidence générale de Tunisia, similar to that with Algeria (Pernot, 1929*e*).<sup>9</sup>

The Institut de Phonétique had earlier sent Mme Jeanne Herscher-Clément to North Africa to research recording opportunities. A composer/pianist, Herscher-Clément was known for her work on exotic folklore after directing a conservatory in Alabama in 1927 and becoming enamored of Native American music. She reported having heard Berbers with extraordinary instruments and voices in the Figuig oasis of Eastern Morocco, a song with oud, recalling flamenco, in Tlemcen, and meeting M. Aboura, collector and transcriber of over 300 traditional songs, some with modes and rhythms suggesting those of Antiquity. She had also heard much about Baron d’Erlanger: unlike anyone else, someone able to sniff out the real keepers of tradition, hire them “like satellite countries of a master who knows the language and has the discernment necessary to

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<sup>9</sup> On 10 February 1930, similar discussions were proposed to the Gouverneur Général de Madagascar, turned down because of cost.

obtain exact and magnificent results,” and a rare person with time and resources for this. She advised Stern to visit as he had an invitation.

When meeting with Geuthner, just before the Prague meeting, to discuss where to put Stern’s list of performing signs in their “Musical Library” volumes, Stern told Pernot about Baron d’Erlanger--his house, his study of oriental music, his immense fortune used to attract singers from all over, his many documents on music, Negro musicians in its regions, Jews, etc. as well as recordings. Having spoken with him at length, Stern was reluctant to agree with Erlanger’s “bold ideas about an enormous work he is preparing and will appear with Geuthner outside our collection” (later the 6 volumes of *La Musique Arabe*, 1930-49, the seventh a collection of musical examples). But he ascertained Erlanger’s profound understanding of Oriental music, whose quarter-tones he notated and studied intensively. Erlanger, in turn, promised recordings for the Musée de la parole and eventual collaboration with Pathé. If we send recording engineers, Stern explains, Erlanger could have singers prepared in advance. Stern planned to spend two weeks in Tunisia going over all this and the anticipated 7 or 8 volumes (Stern, 1928).

A month later, Baron d’Erlanger wrote to Stern with a proposal to discuss with Pernot and Guethner: “I am busy putting together a small collection with an example of ‘each musical genre’ popular here, hoping to send it in 3 weeks. If you have decided not to come, you should see Hornbostel and Lachmann in Berlin who can give you precious information... You’ve asked me to find recordings of Tunisian music, but so far those I’ve heard will disappoint you” (Erlanger, 1928). In February, he followed up: this little study was finished. He apologized for being late with it, as he was not feeling well and in Tunisia “no one comes to help” (Erlanger 1929).

These letters are very revealing, but also raise questions. We know from his archives at CMAM that Erlanger, and/or his assistants, organized their collection of music according to categories (see also Ghrab, 2018). This meant that he was able to make his selections carefully and efficiently. Although there is only one “Negro song,” “Chant du Génie May-Guizou,” by Haoussa from Nigeria, living in Tunis, his archives have

many such songs since 1918. However, if some were carefully notated, those from Soudan used idiosyncratic signs, unreadable to Westerners. Although Andalusian music and Arabic-Berber genres are well-represented, Erlanger made sure to include other kinds of traditional music, including that of Jews and the Tunisian brotherhoods, even two airs from neighboring Tripoli. Noting the absence of good recordings of Tunisian music suggests that none were transcribed for this collection. In what circumstances, then, were Stern's notational signs added to these musical examples, as described above?<sup>10</sup>

In March 1929, Pernot turned down Stern's proposition to work with the Baron on recordings in Tunis, due to a shortage of wax cylinders (Pernot, 1929a). With his increasingly illness, Erlanger's visits to Paris in August through October 1929 helped the project stay afloat. Soon he sent the remaining examples, the volume submitted in January 1930. The idea of a small collection, followed by longer ones for each genre, was exactly what Stern desired.

Stern and Mme Herscher-Clément began work on it in February, but did not send corrected proofs until May 1931. Erlanger returned the proofs that October but asked that the volume begin with the "Kacida" (no. 10) because it "represents true classical music, Tunisian music of Andalusian origin"—thus before the opening Negro song, a preference ultimately not honored (Erlanger, 1931a). When finally published in 1937, the work's original title, "Chants populaires de l'Afrique du Nord," was changed to *Méodies Tunisiennes* (Erlanger, 1931b). This most likely resulted from recent publications of other North African music, such as Chottin's two volumes of Moroccan music (Heugel, 1931-1933), followed by his *Tableau de la musique marocaine* (Geuthner, 1939).

In many ways, *Méodies Tunisiennes* were surrounded with other intervening concerns and activities that also brought Stern and Erlanger together. While Stern and Mady Lavergne, both hired by the Institut de

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<sup>10</sup> Erlanger's archives in CMAM contain many approaches to transcription--alphabetic, western, and hard to describe--evidently encouraged by the Baron, some noted in Ghrab, 2018.

Phonétique and working with Pathé, were busy preparing for and making hundreds of recordings during the 1931 Exposition coloniale in Paris and working with Snoussi, Erlanger's secretary, on the Tunisian participation there, Erlanger was focused on the Congress of Arabic Music in Cairo (1932), originally planned for early 1931. In January 1930, Erlanger began to assemble a patronage committee and meet with dignitaries. Throughout 1930-31, he and Stern negotiated with the Egyptian authorities and Pathé concerning recording plans. In spring 1932, the Institut de Phonétique sent Stern, Mady Lavergne and Jeanne Herscher-Clément to Cairo. Each delivered papers and served on the recording committee, along with Ricard and Chottin from Rabat, Hornbostel, and others. Erlanger, too ill to attend, stayed abreast, but died that October. Later, Stern, Lavergne, and Herscher-Clément collaborated on Erlanger's *La musique arabe* (1935), charged with reviewing the transcription of the scales and rhythms and annotating the 300 musical examples.<sup>11</sup> Perhaps not surprisingly, one finds here Stern's signs, particularly indicating pitch nuances and accents, used in reproductions of modes and accompanying musical examples. Lavergne and Herscher-Clément returned to North Africa in 1939, participating in the Fez Festival of Moroccan Music.

Most likely, in addition to these competing activities, the "Musical Library" came to an end because Roger Devigne replaced Pernot at the Musée de la parole (1932-38). Still, Devigne's priority remained "musical geography," increasingly using radio to reach listeners. Stern too turned to dissemination. Beginning in January 1932, he organized a series of lecture-auditions, "Distant Voices," at the Université and, in 1933-38, at Musée Guimet, with regular contributions by Lavergne, Herscher-Clément, and visiting specialists. In 1938, this movement culminated with Devigne's creation of the Phonothèque nationale.

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These attempts to record and transcribe music were important contributions to a "Sound Atlas," despite challenges in notating the nuances of oral tradition and in recognizing that machines fail to capture

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<sup>11</sup> See Erlanger's Archives, box 51.2. CMAM.



and reproduce fully what the ear can perceive. Besides the many recording projects here mentioned, realized in fieldwork, studios, at the 1931 Exposition Coloniale or the 1932 Cairo Congress, or only mentioned in passing and never realized, Stern's work continued with contributions by Houston-Péret and Erlanger to the "Musical Library."

One must not forget that key to their success was collaboration, implicit or explicit. This took place among colleagues with diverse expertise from varied disciplines, between public and private institutions, sometimes working as if in quasi-governmental alliances and with national and international agendas, micro and macro in orientation. The linguist Pernot brought experience in the field and in documenting oral transmission. The Asianist Stern understood interdisciplinary research, the challenges of studying "distant lands," scholarly production and need for scientific method, good organization, and interpersonal skills. Under their direction, Made Humbert-Lavergne and Jeanne Herscher-Clément, among others, brought crucial technical skills and understanding of music, shared in lecture-demonstrations in the 1930s. The institutions of the Université de Paris employing this team created a supportive research environment, with a library, recording studio, and fruitful contexts for working together and with Pathé. This recording company, which helped make such contexts possible, benefitted from these contacts and growing markets. They sent engineers and equipment where needed, made reliable products, and distributed them widely. As documented here, Pathé was also part of potential collaborations that never realized. To the extent that their work had national implications, Pathé partnered with public institutions and engaged in contracts abroad, protecting and expanding French interests in competitive markets, as if part of the French government. Geuthner, long associated with Musée Guimet, brought to his authors his considerable reputation based on decades of substantial publications, facilitating access of their work to a broad public. No less important was the close relationship Pernot and Stern envisaged between recordings and transcriptions, one covering the other's limitations. Lavergne's and Herscher-Clément's experience in both domains gave them bi-lateral perspectives leading to excellent work.

Particularly important were personal relationships between Pernot and Stern, they and their assistants, their authors, and their cohorts abroad. These fed off pre-existing networks and contributed to extending and enriching them. Stern’s and Ricard’s shared publication history with Geuthner brought them credibility vis-à-vis one another. Stern, Herscher-Clément, and Erlanger’s work on *Méodies Tunisiennes* soon intertwined with their plans for the Cairo Congress, aware of its substantial implications. What had begun as carefully-designed, distinct volumes of music from various parts of the world grew more interconnected. Pernot signed agreements with the Algerian and Tunisian governments. Herscher-Clément traveled throughout the region. Ricard brought Moroccan music into discourse with Pernot and Erlanger, and many of them met in Cairo to explore their shared interest in Arabic music.

This article thus suggests that, to understand this emerging “Sound Atlas” in oral and written form, one needs to recognize the rich and complex networks of collaboration, national and international, that rendered them possible.

### **Archives of Philippe Stern, Bibliothèque du Musée Guimet,**

Consulted in 2015-2017 with kind permission of its director, Cristina Cramerotti

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- Erlanger (1929): Letter to Stern, 6 February.
- Erlanger (1931a): Letter to Stern, 15 October.
- Erlanger (1931b): Letter to Stern, 31 October
- Gaumont (1927): Letter to Pernot, 10 October.
- Pathé (1927): Letter to Pernot, 10 November.
- Pernot (1927): Letter to Ricard, 17 October.
- Pernot (1929a): Letter to Stern, 29 March.
- Pernot (1929b): “Projet de Mission phonographique en Algérie,”  
Université de Paris, 3 September.

- Pernot (1929c,d): Letters to M. Cayla, 4 September; 30 October.
- Pernot (1929e): “Projet de contrat,” 30 October.
- Ricard (1927a): Letter to Gaumont, October
- Ricard (1927b): Letter to Pernot, 12 October
- Stern (1928): Letter to Pernot, 2 October
- Stern (1929b): Letter to Houston-Péret, 11 January.

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