

ABSTRACT:

Our project, *Bonne Chance*, meaning good luck in French, is an immersive language learning game that manifests in the form of a mobile app.

The game is designed as a course-companion for French III and III beginning language courses for college students. Instead of merely computerizing old teaching practices or creating grammar practice flash cards, we are radically re-envisioning the design of the learning experience. This project endeavors to build an "ecology of learning that extends beyond the four walls of an institution and engages [students] in ways that are exciting, empowering and culturally relevant" (Salen et al., 2010).

The project functions under four teams: the coding team, the user experience engagement team, the music curation and production team, and the app development team. As the music team, we focus on the music and sounds of *Bonne Chance*.

The music and sounds behind *Bonne Chance* contribute to this ecology by curating an authentically French soundtrack of pre-composed and original music, stimulating the learning environment, creating a sense of historical accuracy, and channeling the primary purpose of the game, which is to help immerse students in the French language.

By conducting research into French composers and cultural trends throughout the ages, French musical history can be characterized as a diverse and central figure in the arts of humanity. French history has shaped human history, and its music sheds light on the roots of its global influence.

The game itself is currently still in a series of prototyping phases; as we continue to test our most viable product (MPV), through our game-based-learning application, our audience of elementary-level French students will gain language learning skills and intercultural empathy.

Working in an innovative studio environment has allowed us to grow in the domains of collaboration, project management, programming, music history, research, music composition, music arranging, and music production in a studio environment.

Interactive Learning: The Sounds Of Bonne Chance

Music Supervisor: Wesley Fowler
Composer/Producer: Alex Gray
Advisor: Cary Staples

HISTORICAL RESEARCH

Historical research has been essential to curating the soundtrack of *Bonne Chance*. Research has helped create an immersive, historically accurate experience for our players. Research has also guided many aspects of game design, such as period visual aesthetics, storyline historical accuracy, and secondary character development. This has also assisted in the composition and music arranging area as we learn to write in historical styles. Much of our research can be seen below. Research was conducted through reading scholarly articles, reading music history textbooks, and applying knowledge gained directly through music history courses in school.

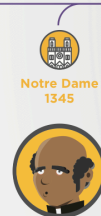
PlayBonneChance.com



Le Louvre
3016

In trying to stay true to the French sound, while also capturing the sounds of the future, this music reflects upon France's most well-known futurist musicians: Daft Punk. The music heard in this level utilizes synthesizers and digital sounds. To keep from being too distracting from game play, this music has an ambient element to it that immerses the player without holding their attention.

Clair de Lune by Claude Debussy arranged by Alex Gray (1905/2017): This arrangement of Debussy's famous piano work features a soft synthesizer similar in timbre to a harp with many ambient electronic effects, such as reverb and delay. While referencing our main character's name, Elodie Claire, it also ties in a French classic with a futuristic sound.



Notre Dame
1345

Notre Dame School of Music (1150-1250): Just as Rome was the center for the church during the Medieval Ages, so was Paris the center of scholasticism and culture in the European world. The musical organum, polyphony, and motets of the Notre Dame School, created by composers like Leonin and Perotin, were the roots of European Classical music. They pioneered the structure and harmony of the music that we love today.

Hildegard von Bingen (1098-1179): In addition to being one of the first recognized female composers from Europe, Hildegard von Bingen is credited with writing more medieval chants than any other known composer from that time period, a known total of 77 pieces of music. Her devotion and passion for music paved the way for future female artists and musicians.



Jardin du Luxembourg
1632

The Baroque Era of Music (1600-1750): The name of this era comes from the fashion and jewelry trends of the time, which valued symmetry, and overlapping floral designs. This reflects the music of time very strongly, as form and structure dominated the compositional process of music by composers like Jean-Baptiste Lully and Jean Philippe Rameau.

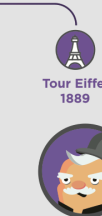
Jean Philippe Rameau (1683-1764): Considered to be one of the leading French composers for opera and harpsichord, along with Jean-Baptiste Lully and François Couperin, Jean Philippe Rameau established the formula of European classical music. Through his accomplishments in music theory (*Treatise on Harmony 1733*) and his technically advanced compositions, he revolutionized the standard for musical complexity. His pieces foreshadowed the intricacy of French operas from the Classical and Romantic eras that dominate opera houses to this day.



Père Lachaise
1804

Romanticism (1780-1900): A cultural movement that valued hyper-emotion, nature, mythology, and dramatic storytelling. It was musically characterized by increasingly large orchestras and emotionally driven compositions. Composers sought to tell stories through music that would profoundly move and touch audiences.

Camille Saint-Saëns (1835-1921): A musical prodigy, Camille Saint-Saëns is considered the most famous French composer of the Romantic era. He studied at the Paris Conservatoire, and taught at the École de Musique Classique et Religieuse in Paris. His position there impacted future generations of French music, as he taught composers like Gabriel Fauré, who then taught Maurice Ravel, who is considered the most widely popular French composer today. He was a renowned organist at La Madeleine, which was the official state church of France at the time.



Tour Eiffel
1889

Impressionism (1875-1925): A movement rooted in French artists like Claude Monet, impressionists sought to convey the emotions and feelings of a subject rather than its detailed information. Most noticeable in composers like Maurice Ravel and Claude Debussy, composers sought to convey the angst, turmoil, and triumphs of the misunderstood musician by writing music with dark sounds, features, and lyrics. By focusing on achieving musical "color" rather than technically, French music became more emotional than ever before.

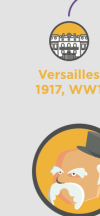
Maurice Ravel (1875-1937): Widely considered to be one of the greatest composers of all time, Ravel's most popular work is his orchestral piece *Boléro*. Starting with an incredibly soft snare drum part, the piece slowly unravels into a majestic fanfare of triumph, while still maintaining the original theme. His pieces are emotional, complex, and built out of centuries of French musical development.



La Prison
1968

Serialism (Post WWII): Serialism in music was a political response to World War II and the Cold War, and was born in the Second Viennese School of Music. It was built on the concept of using formulas or a set of values to determine musical pitches, often resulting in a characterization of randomness of sound. The movement expanded into Total Serialism, which included all aspects of music, including rhythm, duration, and dynamics.

Pierre Boulez (1925-2016): Known for his conducting and profound influence on the experimental field of music, Boulez sought to make music that a totalitarian regime could not adopt for its own. He was a primary figure in the creation of the Darmstadt school, their leading avant-garde music summer program that is based in Germany.



Versailles
1917, WWI

Dadaism (1920s): An international art movement, Dada was a direct response to the outbreak of World War I, and was based on a rejection of logic and reason of capitalist society, embracing irrationality. It had a profound impact on visual and plastic arts, most famously including depictions of the Mona Lisa with a crude moustache. Spreading from Switzerland, to the United States, to Paris, the movement was closely affiliated with radical political ideology.

Erik Satie (1866-1925): A famous composer and pianist, Erik Satie worked closely with dadaists, seeking to break free from what he saw as traditional compositional methods established by composers like Claude Debussy. His music did not encourage forward momentum, but rather recycled previously established material, most famous in his piece "Vexations," which features an absurd 840 repetitions.



Le Louvre
1984

Spectrality (1970s): A figurehead of avant-garde/experimental music, spectral music refers to the process of using computers to determine the authentic or artificial timbres of a piece of music. The movement can be better described as an attitude or aesthetic, rather than a set of techniques, as it reflects an evolutionary view of sound and timbre. Many composers and groups associated with spectralism disagree with the term, and desire a global redefinition.

Ensemble l'Intérieure (Founded 1973): One of the premiere ensembles performing contemporary music, this Paris-based group was the leading figure in performing Spectral music. Credited with premiering hundreds of art pieces, the ensemble draws much of their techniques from IRCAM (Institute for Research and Coordination in Acoustics/Music), an avant-garde institute located in Paris.



Moulin Rouge
1921

Neoclassicism (Interwar Period): A return to traditional methods of composition, the Neoclassical movement between World War I and II saw the rejection of the Romantic Era's hyper-emotion in favor of a "call to order". Composers sought to move away from the Serialism and experimentation populating the 20th century in favor of Baroque techniques such as fugues, and the implementation of Latin text. The movement was most represented in the works of Igor Stravinsky, who caused an immense amount of controversy across Europe.

Darius Milhaud (1892-1974): Darius Milhaud was one of six French composers based in Montparnasse that were in the group "Les Six". The organization rejected the Romantic era style of composers like Richard Wagner as well as the ideology of impressionist composers like Maurice Ravel. Instead, they sought to follow the practices of Russian composer Igor Stravinsky, who Milhaud took much inspiration from.

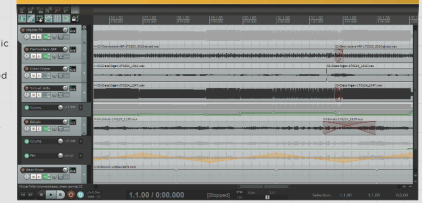


Notre Dame
1940, WWII

Chanson Réaliste (1880-1950): Building off of Paris' historic chansons (lyrical art songs) and cabarets, this branch of music was for the middle and working class people dealing with the realities of life. Confronted with the devastation of World War II, French songwriters began composing chansons of loss, hopelessness, and suffering under Fascist rule. The majority of these were performed by women, and reflected one of the darkest times in French history.

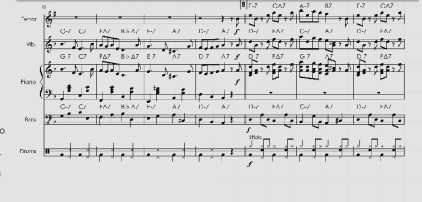
Edith Piaf (1915-1963): One of France's greatest international stars, Edith Piaf made her career singing about love, loss and sorrow. She has recorded famous songs including *La Vie en Rose* (1946) and *Hymne à l'amour* (1949), and has left a global legacy as one of the greatest performers of the 20th century. Her life and work is a beautiful of France, and reflects the influence the nation has across the world.

MUSIC PRODUCTION



This is an image of the Digital Audio Workstation (DAW), Reaper, that is being used to produce the music of *Bonne Chance*. In the DAW, we are able to record, mix levels, adjust panning, process effects, and write music in the MIDI format. MIDI information is processed by a Virtual Studio Technology Instrument (VSTi) plugin which plays back the recording with a chosen digital instrument, such as a synthesizer or acoustic instrument sampler. Effects such as tremolo, delay echo, and reverb can be added to any track, whether it is a MIDI track or a recording. We can also set panning, which is the left and right sound signal distribution in a stereo field. This helps create a more realistic "live music" feeling where musicians are spread out on a stage. The DAW also allows us to mix audio levels by volume or frequency range so that the music can be well balanced.

MUSIC COMPOSITION & ARRANGING



This image comes from the musical notation software MuseScore that has been used for the composing and arranging of music of *Bonne Chance*. This specific image comes from the arrangement of *The People United Will Never Be Defeated* for jazz combo. One of the most important elements of composing and arranging is knowing how to write appropriately for different kinds of ensembles. The composer or arranger must study the idiom of each instrument and how the ensemble performs as a whole. In the given example, each player is given the melody and chord symbols to indicate the harmony of the music so they may improvise accordingly. In contrast, a string quartet needs very specific parts written out for them. Composing and arranging for this game has also required studying music by musical movements within given time periods and learning how to write in those styles.

