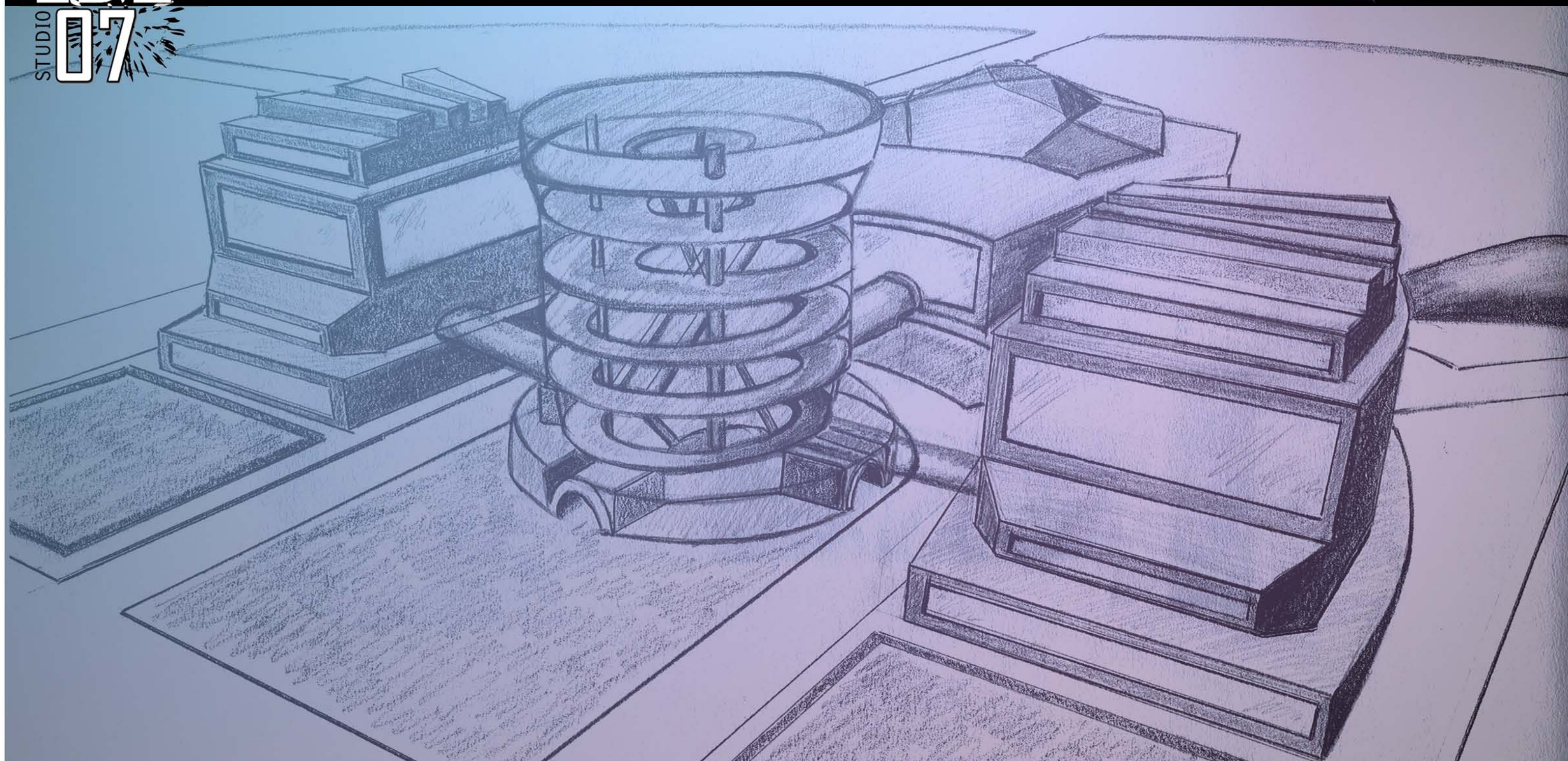


LBE
STUDIO
07



American Music Crossroads

Spring 2007 - Entertainment Technology Center, Carnegie Mellon University

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Picture a celebration of innovation in American Music. Allow us to share with you our vision of a new tourist attraction to educate, enrich, and entertain the Pittsburgh region and its visitors.

Our goal is threefold: to tell and preserve the story, to support future development, and to experience American Music. We see Pittsburgh as the ideal location for the journey through the diverse paths of American Music. This project will be a source of rebirth for the Pittsburgh Community.

Let us show you how.

*All roads lead to where we stand
And I believe we'll walk them all
No matter what we may have planned*



- Don McLean "Crossroads"

To date, there is no museum, collaboration, or initiative that is dedicated strictly to American Music, regardless of style or genre. Pittsburgh boasts a rich heritage, home to many innovations in American Music: the nickelodeon, the microphone, the country's first television and radio stations, and America's first songwriter. Many more facets of American Music also find their roots in the city of Pittsburgh.

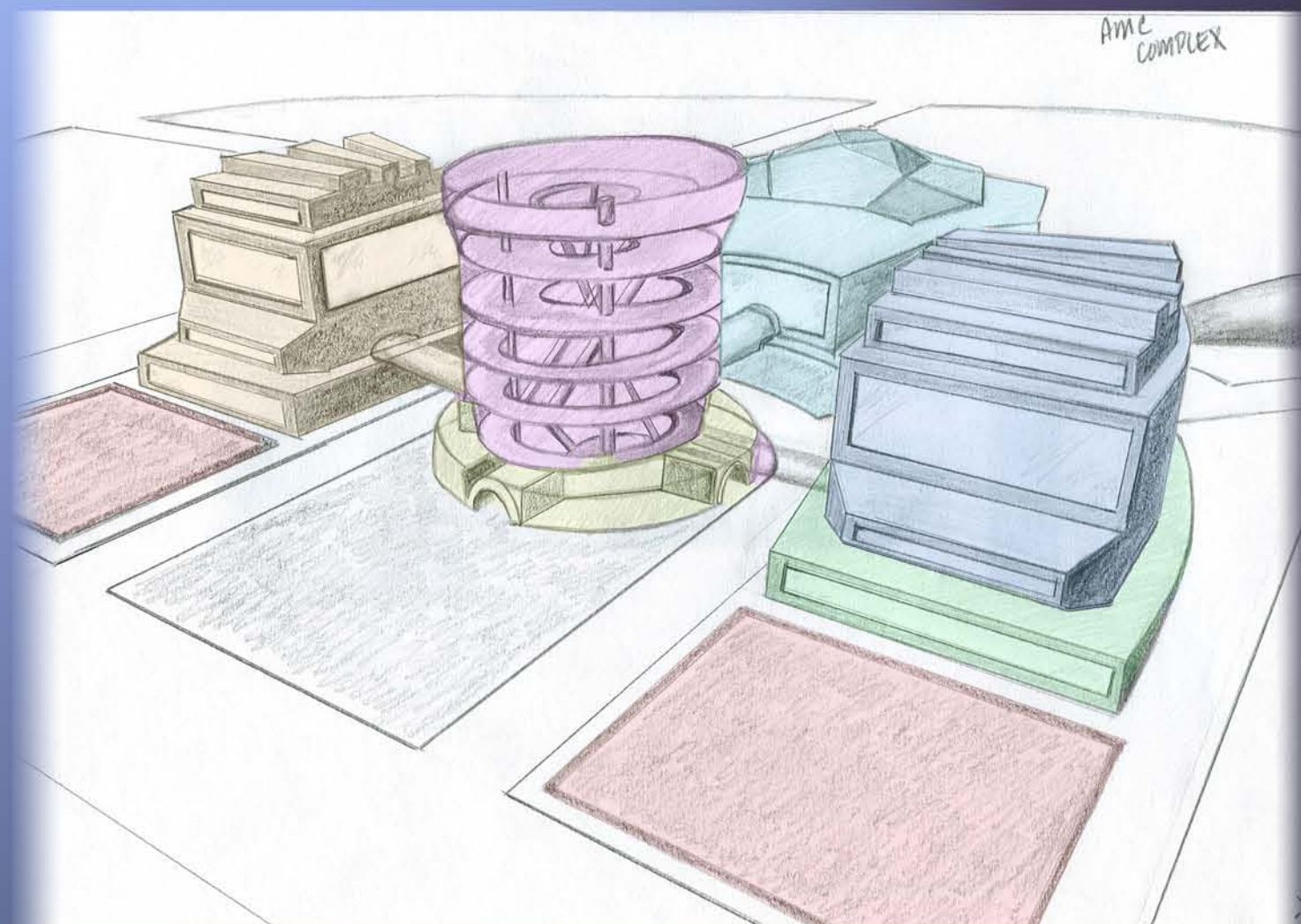
For precisely these reasons Pittsburgh is a natural choice to showcase America's Musical heritage.



Envision a cohesive unit that integrates a monument to American Music with its surroundings.

A walk into the quad exposes visitors to a vibrant “club row” or “club square” featuring quaint shops, sidewalk cafes, and outdoor eating spaces. At lunchtime the area fills with employees from the neighboring businesses and at the end of the day residents return to their condos and apartment buildings.

Crowds flock to the large, state-of-the-art concert hall for the live performance of the evening. In the summertime, music can be heard floating through the city streets echoing from the smaller, outdoor music performance venues. Myriad experiences revolve around the central edifice - a dedication to the development of American Music.



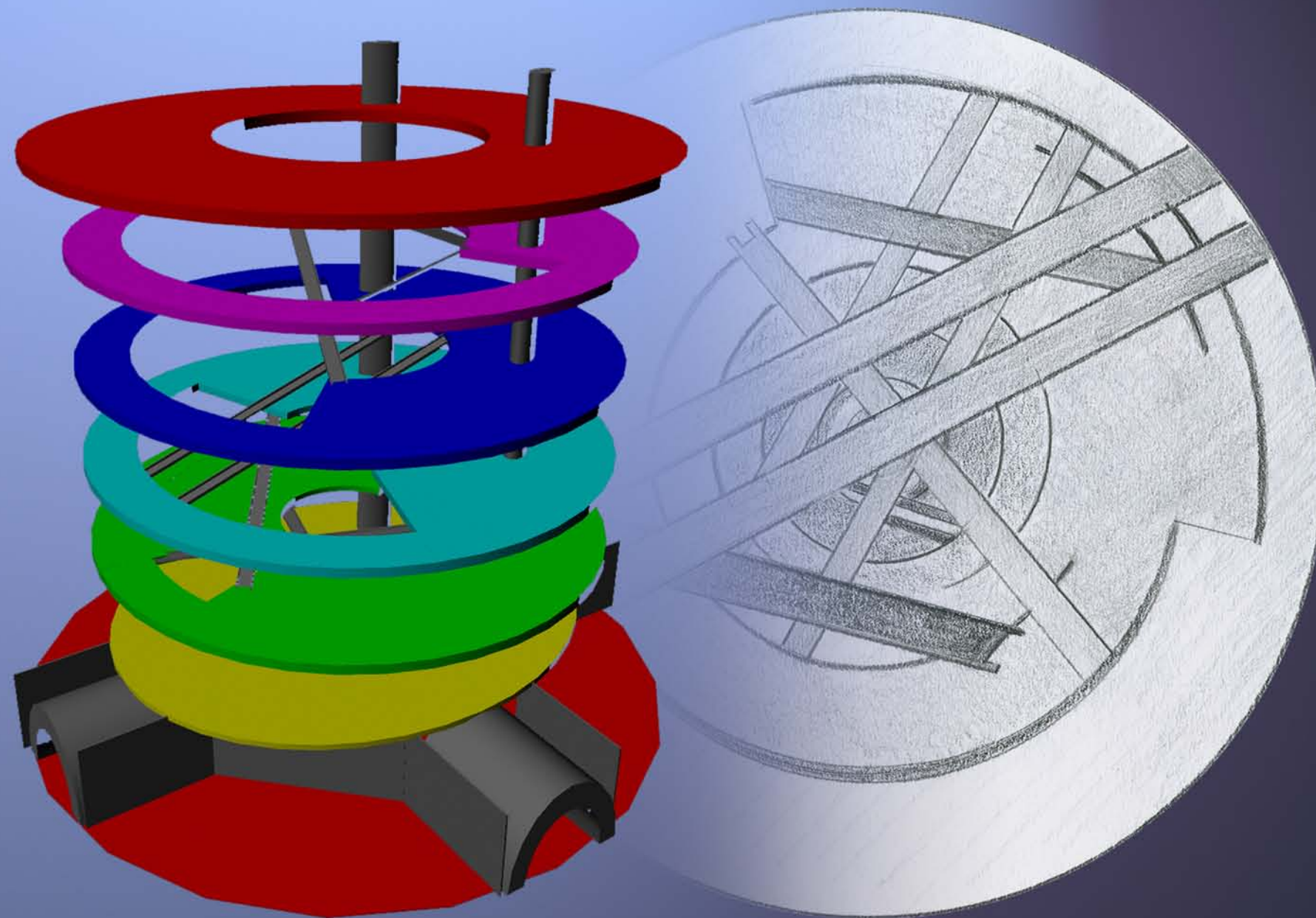
Apartment buildings
Business buildings
Outdoor venues
Retail Shopping

Dining
Concert hall
Grassy lawns
The AMC Museum Building

Today's American Music is the product of a vastly interconnected self-influential web of many distinct strains of music. Many notes, instruments, and melodies have combined to create the symphony we understand as American Music. This complex network will continue to evolve and expand as our music continues to develop.

The American Music Crossroads experience traces multiple paths from the past, into the present, and will support these connections far into the future.

The edifice containing this ever growing network is in itself a model of the American Music web. The spiraling, cylindrical building showcases American Music genres on each uniquely constructed floor. Handicap accessible, moving walkways provide the connections between closely influenced genres, while physically telling the story of the link between floors.



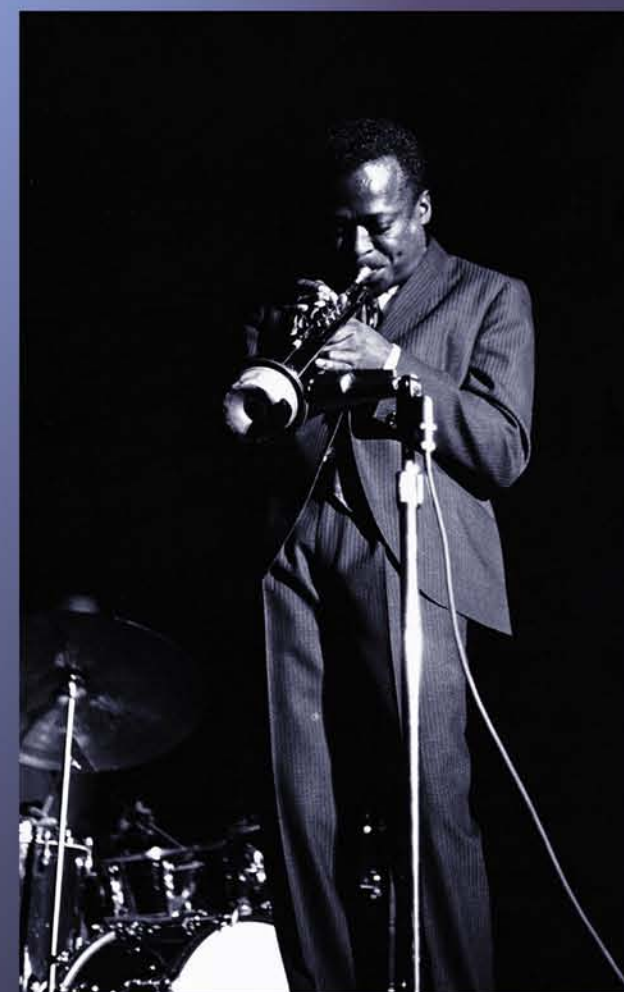
Each genre focuses on the characteristics of the music, influences across genres, important American landmarks, and most importantly an interactive experience. Exhibits will be peppered with entertainment technology applications to “edutain” about the history of American music using cutting-edge recording and performance enhancing techniques.



After entering the American Music Crossroads and finding themselves in a musical world, a group of guests might decide to follow a path out of the atrium towards the jazz section of the experience. Along the way, the adventurers will hear snippets of historical jazz music that would have been heard in Pittsburgh in different eras, featuring the voices of famous Pittsburgh jazz musicians. Authentic photos, billboards, and posters clutter the hallway. Having reached the end of the corridor, the guests find themselves in a small space that appears to be the back of a dark alley. There is light coming from under the doorway in front of them. They enter into a smoky, dimly lit jazz club. It is mostly empty, save for a small stage at the far end of the room, and a couple small round tables with flickering electric candles. Behind the bar along the far wall is a mannequin with a TV screen for a head. When approached, the mannequin comes to life and the head of a period bartender appears in the monitor. He asks what they'll have.

The sounds of a soda fountain can be heard in the background. While he fixes them a cherry cola, the bartender asks our travelers if they came in to see the band tonight. He's surprised to hear that they have never heard of Miles Davis, one of the youngest upcoming jazz artists. They enter into conversation with him about his favorite musicians, when suddenly the stage behind them lights up! What appears to be the ghosts of Miles Davis and his band have come to life to play some of their hits. After a break the band announces that that they have a new song for the audience tonight, 'written by the young boys in the room next door.' Puzzled, the guests notice there is a doorway in the back of the club. While the band begins to play a unique melody, a few of the guests cross into the next room. There is a large musical synthesizer where three small boys have generated their own jazz songs.

Amazed at the technological abilities of the museum, the guests decide to discover more genres. Walking out of the jazz section there is a choice to travel towards any number of floors...



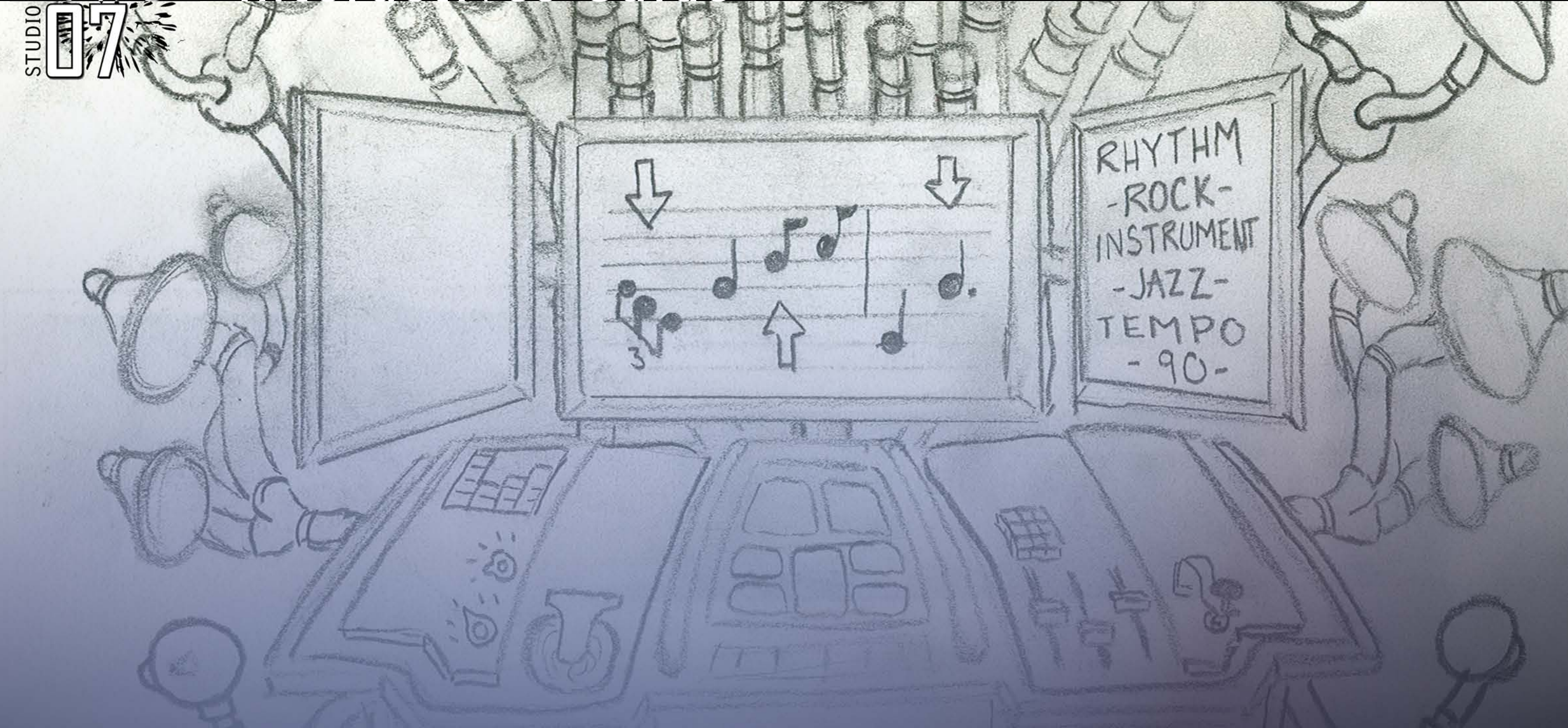
What could this astounding experience hold in store for them next?

All the genre floors will halo a bright, sunny atrium that extends the entire height of the cylindrical tower. Light falls down the cylinder, highlighting the first floor lobby, the Crossroads of the museum, and metaphorically all of American Music. Audiences gain entrance to this magnificent edifice through an archway that opens into the center under the skylight. People are welcomed into the lobby, a space dedicated to Pittsburgh, a musically pivotal locale. All physical paths through the complex, and thus all pathways of influence, lead back to this location: Pittsburgh, the American Music Crossroads.




While traveling up through the floors of the museum, guests observe the web of connections between the levels below them. They ultimately reach the floor dedicated to the future development of Music. Here guests can experience our commitment to furthering the development of American Music. People can peak in on a large recording studio available to local aspiring musicians, including the sound control booth. The rest of the floor is a chance to interact with exhibits explaining the other initiatives of the American Music Crossroads complex: Voice Therapy, Music Lessons, Practice Rooms, Business Networking, and more.






On the following pages you will find examples of some of the exciting technological exhibitions that could be featured in the American Music Crossroads Museum.



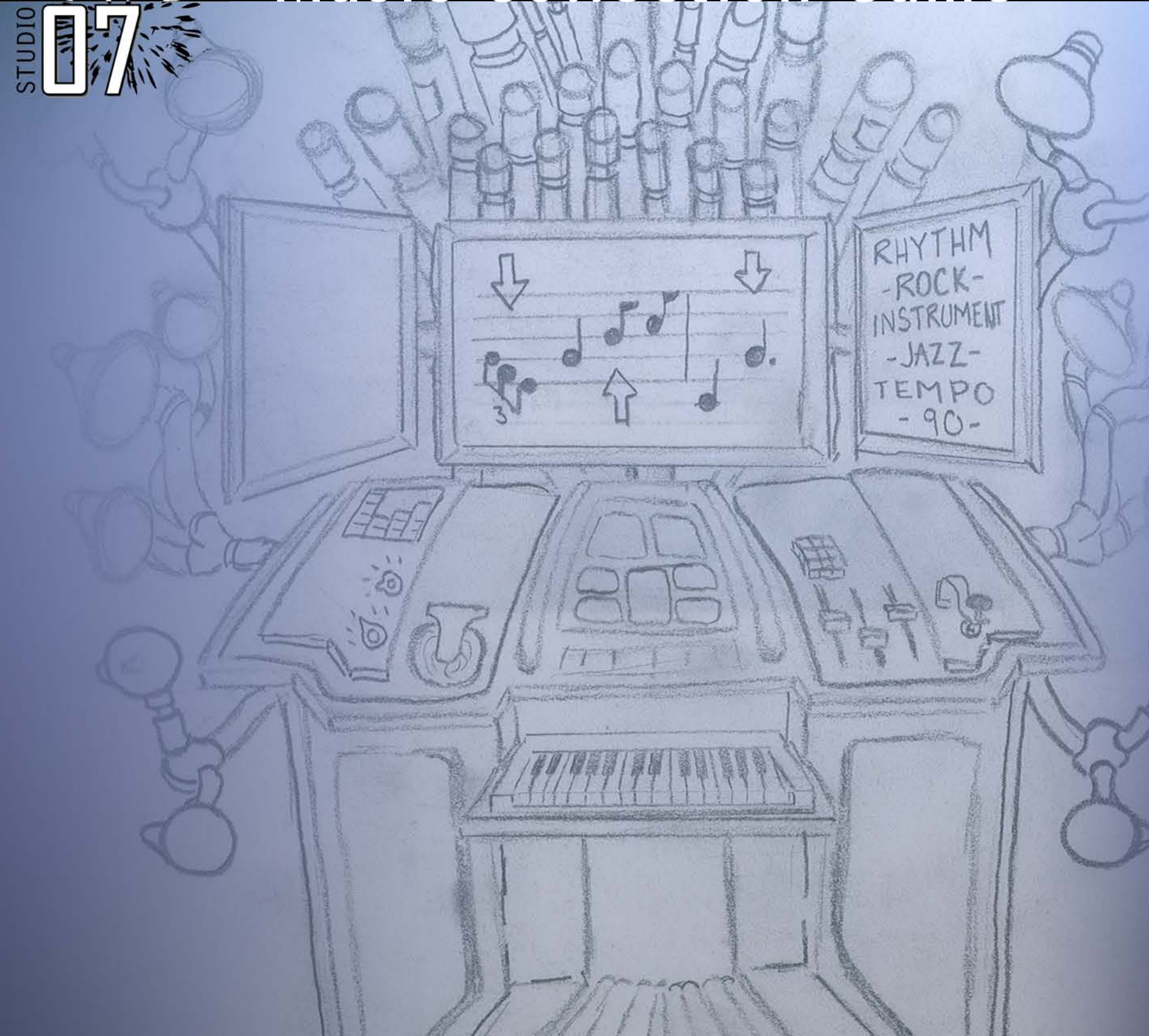
Rock music emanates from a door in the back of an exhibit. When guests enter they are transported to a 1980s rock concert. A band straight out of the history books wows the crowds with stellar moves and radical music. In reality the band is merely a holographic projection, but the way it brings the stage to life, the guests hardly notice as they join the experience.

The Virtual Rock Show is an instance of the Pepper's Ghost' effect. It makes use of a projector and a transparent sheet of glass above the stage that reflects an image to the audience. Actual video superimposed on a believable set creates the illusion of a live concert event



When guests imagine themselves playing an air guitar anything can happen. In this exhibit, as people rock out in their minds, guitar chords flow from the empty space between their hands. Players can control virtually any instrument that they desire and feel the effects as if they were really performing.

Using a system comprised of visual motion sensing and a motion tracking 'pick,' it is possible to measure the motions of a guest. These motions can be mapped to actual chords, that are then played back by a computer. Furthermore, visual feedback can be provided to the guest via display screens.



While enjoying the complex, guests can engage in a building-wide treasure hunt. Journeying through multiple exhibits, guests can find themed kiosks where they can discover different snippets of music related to the genre at hand. When guests reach the final floor, an organ inspired contraption greets them. By placing their collected music into the machine, guests can use their findings to create personal musical pieces to take home with them.

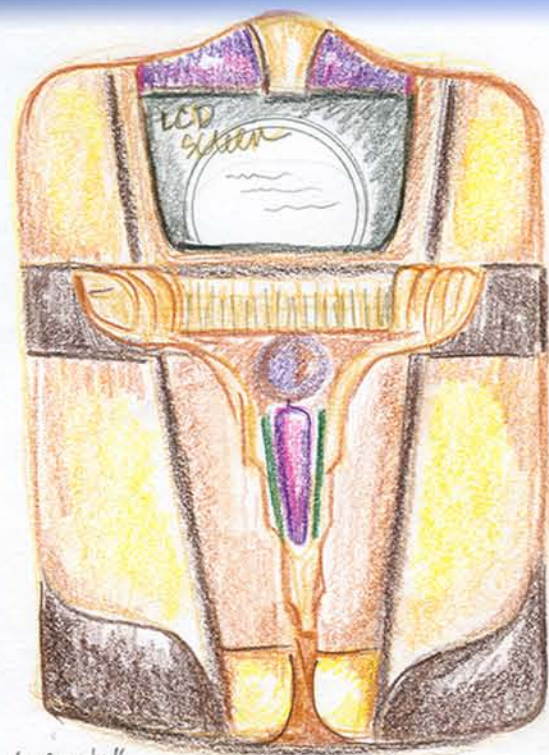
Dick Clark's Dance Party



In this exhibit guests can experience a classic American Music dream. Set on the location of the original "American Bandstand," guests can learn the popular dance moves of the era with Dick Clark as their guide. Not only will guests be exposed to the dance culture of the day, but they will fulfill a generational dream, a chance to be on American Bandstand!

This exhibit is common to the popular "Dance Dance" series of video games. There will be a light-up sensor floor installed to track the motion of guests' feet. A virtual Dick Clark on a screen leads the guests through the moves of any decade they choose. Points are earned by correct placement of guests' feet on the dance pads. The game could also be a competition or collaboration between guests for the highest score.

Synthetic Interviews



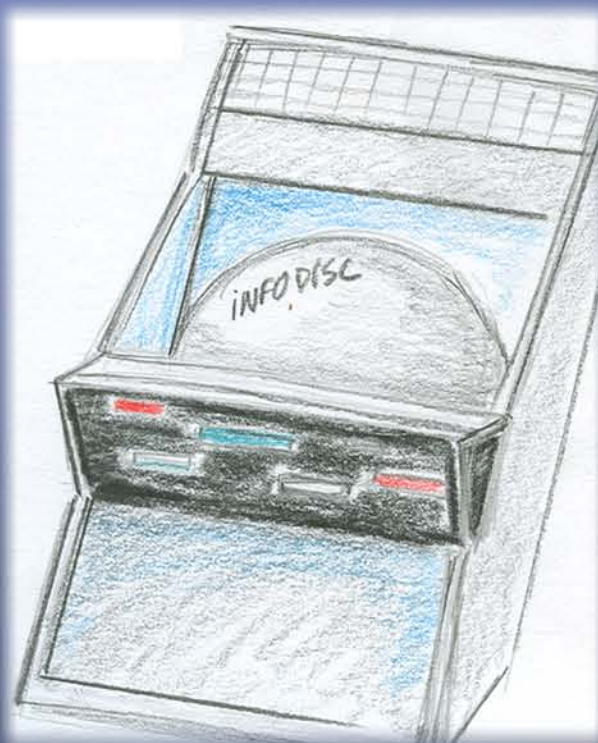
"1920's"
jazz



1940's
Blues

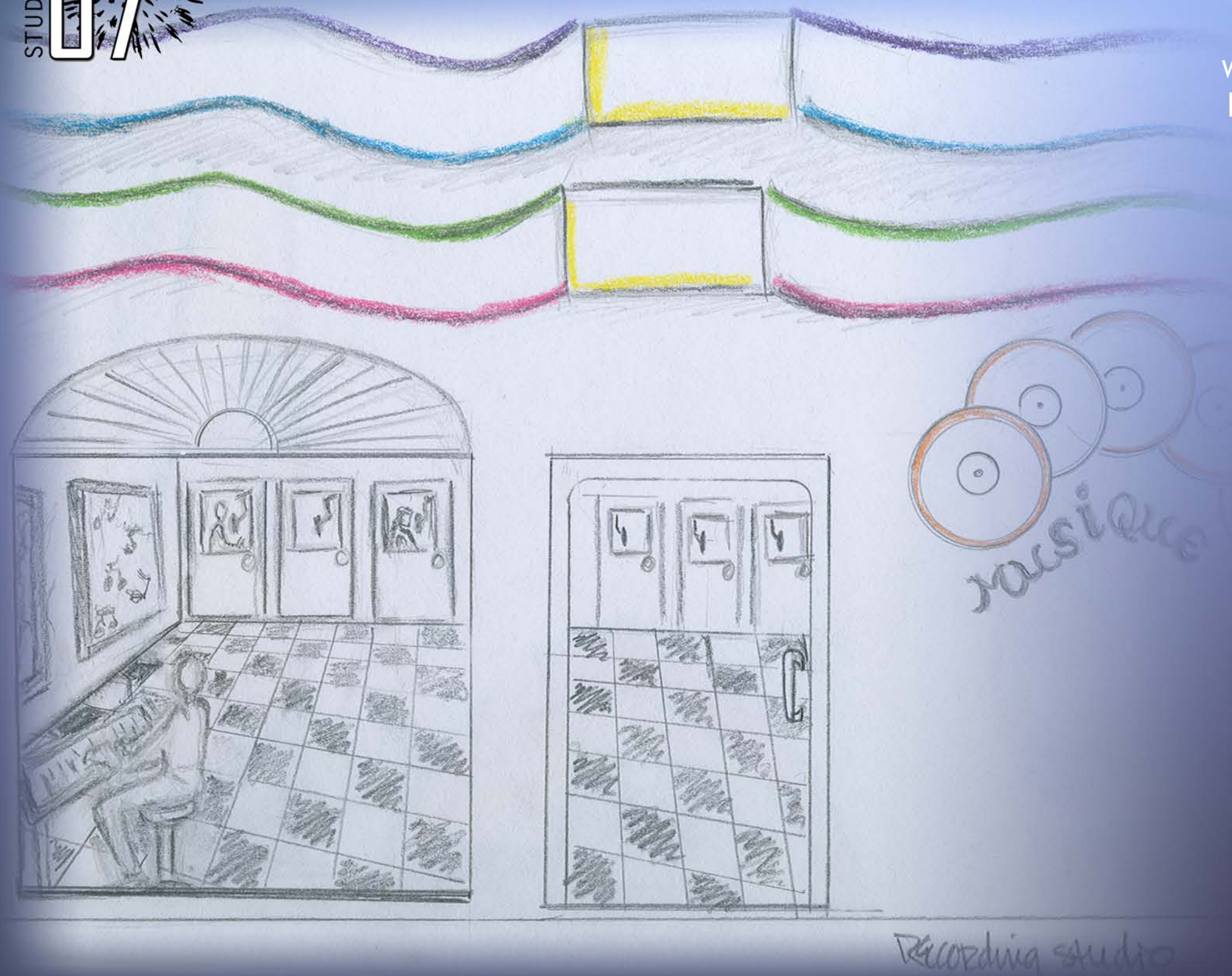


"1950's"
Rock - Elvis
Buddy Holly



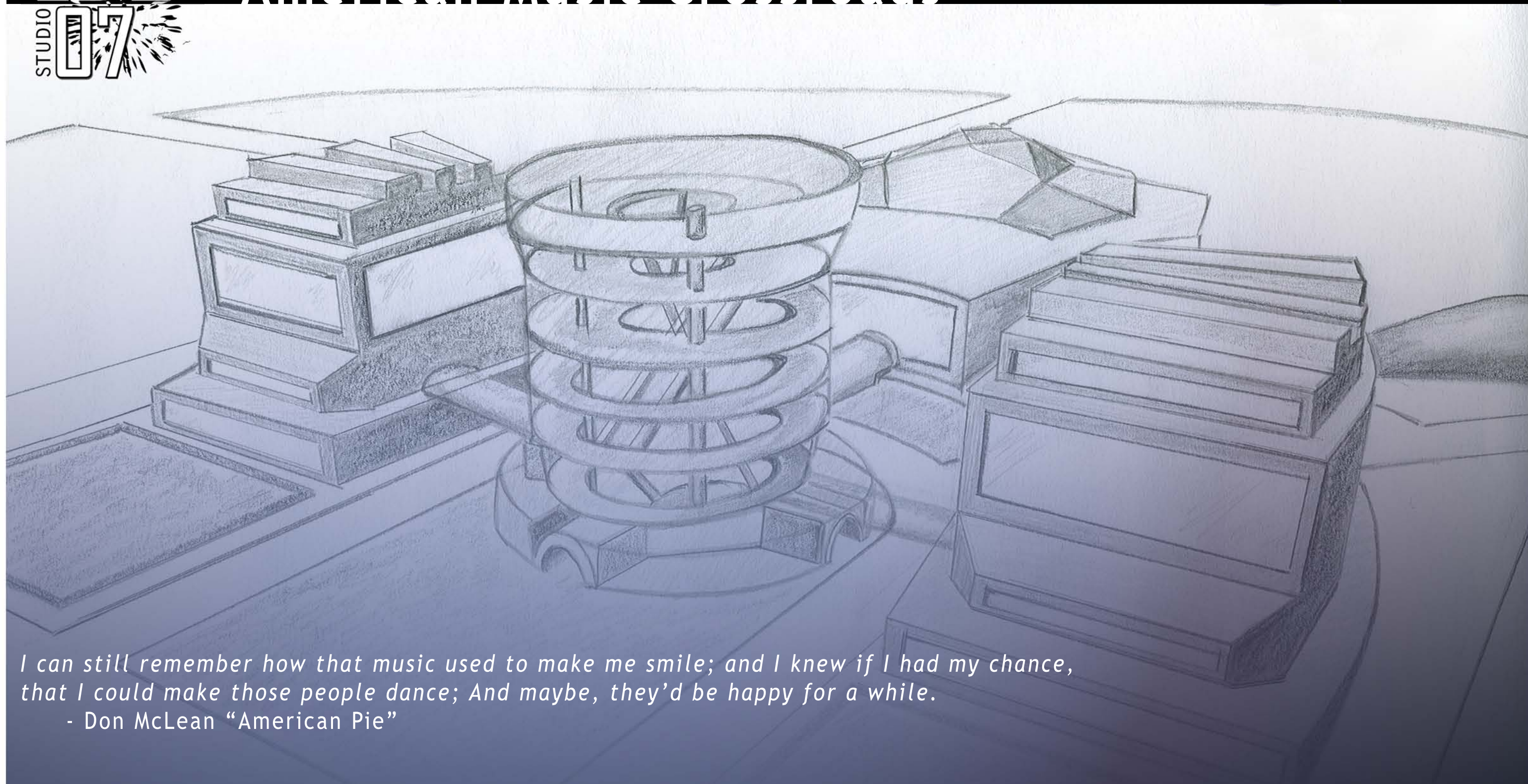
A unique experience available at the complex will be a chance to converse with famed musicians. In different genres, guests will find larger-than-life jukeboxes from different eras. When approached, a musician appears within the jukebox as if they were summoned by the guest. The musician's replica can answer whatever spontaneous question a guest might ask.

The Jukeboxes hold synthetic interviews. Using technology developed at Carnegie Mellon University, guests have the option to ask the software any question, and a prerecorded video will play back containing the most appropriate response. Using voice recognition, the computer within the jukebox will always return an answer to the guest. The video will be presented as a holographic representation of the artist inside the jukebox.



Always wanted to be able to sing as well as Christina Aguilera? Now, guests have the chance to be their own singer and sound engineer in a professional grade studio. Users will record their own voice, and then be able to digitally enhance it, add and edit music accompaniment, and mix it all together into a track for their personal enjoyment. This is a chance to see how the professionals do it.

Using a library of professional digital sound editing tools, along with a user-friendly interface created for this particular purpose, a guest has the ability to run many of the common sound correction filters over his or her own voice. This includes pitch modulation, harmonics, and cutting. The experience will end with the option to take the song home on a CD.



*I can still remember how that music used to make me smile; and I knew if I had my chance,
that I could make those people dance; And maybe, they'd be happy for a while.*

- Don McLean "American Pie"

We look forward to your support of our venture and hope you will join us in seeing our vision come to fruition.