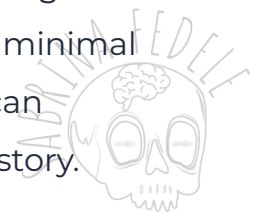


# THE SECRET STRUCTURE OF GAME SOUND

## About Me

I'm Sabrina Fedele: an Audio Director and Sound Designer for indie games based in Seattle, Washington. As the owner of Strange Transmission Audio, LLC, I bring structure to the audio side of game development by creating systems that lead to seamless integration into your team and require minimal supervision. This gives us space to collaborate on a soundscape that can strengthen your game's core loop while environmentally telling your story.



# How to Creative Cohesive Audio for Your Game

How to work with a Sound Designer isn't always clear. They're typically freelancers with different methodologies, processes, and time to design. Sound may be at the end of the pipeline, but the whole game suffers when it's the last priority. There's no time to create a system that glues all your sound effects together so they feel like they're part of the same game.

This process below is best for sound designers brought on early or halfway through development. Early planning provides space to experiment, fine tune environments, and collaborate with other departments. These are the steps to creating a structure around sound design that suits your gameplay, story, and software at your disposal:

- Step 1: Scope the Game
- Step 2: Create Audio Pillars
- Step 3: Establish Your Audio Systems and Tools
- Step 4: Agree on Documentation and Naming Conventions
- Step 5: Create Mixing Pillars
- Step 6: Establish Milestones and Communication/Update Preferences



## 1. SCOPE THE GAME

Having access to the repo and scoping the game in-engine is an indispensable first step. I get a sense for the layout of the project and what audio tools are already in place. Understanding studio-specific systems for bug reporting, asset tracking, documentation, file naming, and more helps with integrating seamlessly and quickly into a team.

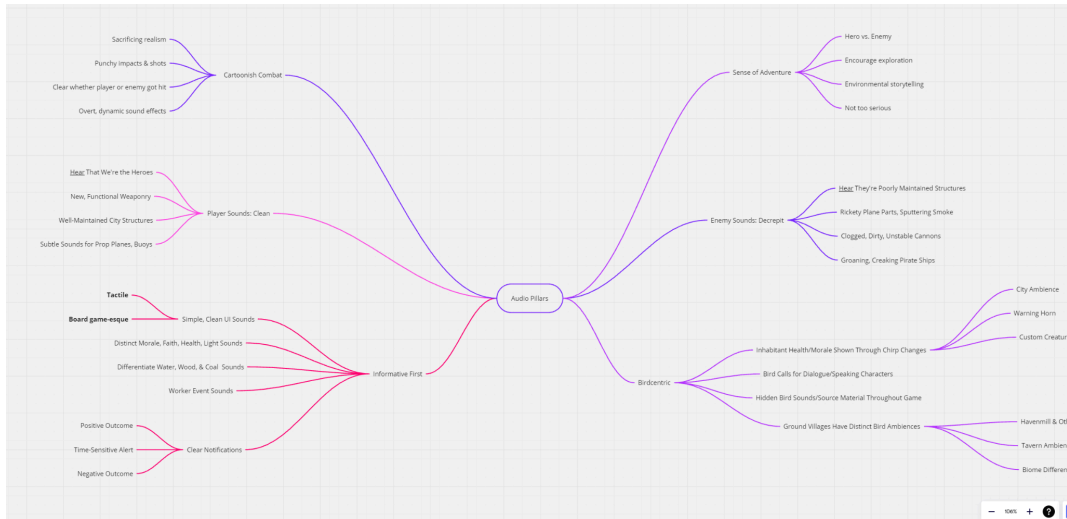
I also ask about debugging tools, commands, and save files to navigate the project efficiently while playtesting. I then get a picture of the story from the game designer to find opportunities for storytelling through the sound design, then meet with the lead developer. Finally, I'll ask for references to sound design and the style you want me to emulate. Once the game is scoped, we'll come up with audio pillars together.

## 2. CREATE AUDIO PILLARS

Audio pillars are our creative constraints and design guidelines that encourage a cohesive soundscape, tone, and style throughout development. These pillars can be decided on these based on the game's genre, tone, the story being told, the game's core loop, and more.

Collaborating on our audio pillars gives us a framework for designing sounds and will be our main reference point for the audio direction of the game.





These creative constraints are then used to create a sound library full of custom recordings or a stock library that could then be used as layers that make up brand new sound effects. I might decide on doing only synthesis or no synthesis at all depending on the genre and visual style, for example. I'll also choose different processing effects on these sounds to give them character and glue them together in the soundscape.

### 3. DECIDE ON AUDIO TOOLS & AUDIO SYSTEMS

Several questions will be asked to establish the audio needs of the project after scoping, including:

1. How will players access the game and what will they listen on?
2. What are the game states that the player encounters?
3. What voice management and culling challenges will we face?
4. How do certain variables change over time?
5. What audio tools are we willing to use and how much am I allowed to be in-engine?



The answers to these questions provide context and options for what audio tools and systems need to be in place. For example, Wwise would be great for a first-person, high-fidelity shooter with a lot of realistic environments in Unreal, whereas FMOD would be great for a city builder in Unity. Native Unity or Godot is not recommended for how inflexible their audio systems are.

## 4. MAKE DOCUMENTATION & NAMING CONVENTIONS

Devising and following naming conventions is tedious but critical to staying organized since hundreds of sounds can be in a single game. File naming and locating becomes a lot easier with uniform naming conventions, asset lists, and processes for getting them in-engine. The categories I generally use on sound lists are Class, Category, Action, Priority Level, Event Name, Design Status, and Implementation Status. If your team has a Producer, I follow their guidelines for asset tracking and naming to fit your systems instead.

	A	B	C	D	E	F	G	H
1	CLASS	CATEGORY	ACTION/AUDIO	PRIORITY	DESIGN STATUS	IMPLEM. STATUS	TIER	FMOD EVENT NAME
32	Combat							
33	Combat	Cannonball Impt	Sand	Medium	Not Started	Not Started	1	Combat/Cannonball Impacts/Sand
34	Combat	Cannonball Impt	Ice	Low	Not Started	Not Started	1	Combat/Cannonball Impacts/Ice
35	Combat	Cannonball Impt	Stone Terrain	Medium	Not Started	Not Started	1	Combat/Cannonball Impacts/Stone Terrain
36	Combat	Cannonball Impt	Rock Breaks	Medium	Not Started	Not Started	1	Combat/Cannonball Impacts/Rock
37	Combat	Cannonball Impt	Grass	High	Completed	Completed	2	Combat/Cannonball Impacts/Grass
38	Combat	Cannonball Impt	Water	High	Completed	Completed	2	Combat/Cannonball Impacts/Water
39	Combat	Enemy	Defeated Pirate Calls	High	Completed	In Progress	1	Dialogue/NPC/Defeated Bird Calls
40	Combat	Enemy	Parachute Open	High	Completed	In Progress	1	Empire/Workers/Bird Parachutes Away
41	Combat	Enemy	Aircraft Kamikaze Plane Spirals	High	Completed	Completed	1	Combat/Enemy/Aircrafts/Movement Type A
42	Combat	Enemy	Aircraft Gunfire	High	Completed	Completed	2	Combat/Enemy/Aircraft/Gunfire
43	Combat	Enemy	Aircraft Movement B	High	Not Started	Not Started	1	Combat/Enemy/Aircraft/ Movement Type C
44	Combat	Enemy	Aircraft Movement C	High	Not Started	Not Started	1	Combat/Enemy/Aircraft/Movement Type B
45	Combat	Enemy	Aircraft Impacted	High	Completed	Completed	2	Combat/Enemy/Aircraft/Impacted
46	Combat	Enemy	Aircraft Movement A	High	Completed	Completed	2	Combat/Enemy/Aircraft/Movement Type A

The event/sound names come from the Class, Category, and Action sections of the Sound List and are named identically in Windows Explorer, in-game, and my Digital Audio Workstation. This helps a lot with locating sound assets for trailers after your video editor passes the footage off to me too. (This is because screen-capturing the sounds in-game isn't recommended.)





## 6. AGREE ON COMMUNICATION PREFERENCES

I want to make sure we check in and share updates to review the way that you prefer. This could be sending mockups, notifying you when they're in-game, taking a screen capture of the gameplay, or another way. I generally default to weekly reviews at the end of each Friday where I'll share what got accomplished and what to review if there is no preference. I also encourage interdepartmental meetings to be as in-the-loop as possible.

For sharing feedback regarding revisions, a shared language can make revisions more streamlined and tailored to what you'd like. I've found that describing how you want the sound/player to feel or even making the sound with your mouth (e.g. sssshhhhhweee) can help a lot with direction. What's most important is that we have a shared language to understand each other.

## In Conclusion

A clear structure to sound designing a game at the indie level is uncommon, leading to preventable confusion when many freelancers work with game studios. My hope is that you now have a new way to frame collaborating with a sound designer and that you have exciting ideas for how to tell your story with sound. I'm [one email away](#) when you're ready to discuss how this structure could be tailored to your particular game.

