SPECTACOLO SOUND DESIGN COURSE

HOSTED BY MASHIRIKA PERFORMING ARTS &MEDIA COMPANY

TRAINING

BY

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MASHIRIKA
PERFORMING ARTS AND MEDIA COMPANY

MASTERING SOUND DESIGN FOR THEATER

DAY 8

INTRODUCTION RECAP

The sound designer’s role is crucial in ensuring that sound not only complements but enhances the visual elements on stage. By carefully curating audio elements such as ambient sounds, effects, and music, sound designers create an immersive environment for the audience.

- - Ensures clarity in dialogue.
- - Helps set the tone and mood for the performance.
- - Facilitates smooth transitions between scenes.

WHAT IS A TECHNICAL RIDER?

A technical rider is a detailed document that specifies all the technical needs of a theater production. It is used to communicate the sound requirements between the production team and the venue’s technical staff, ensuring that everything from the equipment to the setup is addressed in advance.

- - Equipment Specifications
- - Stage Setup Requirements
- - Operational Needs

KEY COMPONENTS OF A TECHNICAL RIDER

- To create an effective technical rider, include the following components:
- - Equipment Requirements: This includes all sound gear, from microphones to speakers.
- - Input/Output List: Detailed list of input sources and where they connect.
- - Stage Plot: A visual diagram showing the layout of sound equipment.
- - Sound Cues: A list of all audio cues during the performance.
- - Communication Systems: How crew members will communicate during the show.

CREATING A CLEAR TECHNICAL RIDER

Writing a clear and precise technical rider is essential for smooth production. Here are some tips:

- - Be Specific: Clearly describe all equipment and setup needs.
- - Anticipate Issues: Think ahead about potential problems and list solutions.
- - Simplify Language: Use terms that the venue crew will understand easily.

Tech rider example

SHE LOVES ME

"A Romantic Comedy musical"

Technical Rider

Patch-In List

1. Lapel **1** (Ladislav Sipos)
2. Lapel **2** (Georg Nowack)
3. Lapel **3** (Amalia Balash)
4. Lapel **4** (Ilona Ritter)
5. Lapel **5** (Steven Kodaly)
6. Lapel **6** (Mr. Maraczek)
7. Lapel **7** (Arpad Laszlo)
8. Lapel **8** (Support **One**)
9. Lapel **9** (Support **Two**)
10. Lapel **10** (Support **Three**)
11. Lapel **11** (Support **Four**)
12. Lapel **12** (Support **Five**)
13. Chorus **1** Lapel **13**
14. Chorus **2** Lapel **14**
15. Chorus **3** Lapel **15**
16. Stage Ambience Mic – **L** (Condenser Mic)
17. Stage Ambience Mic – **C** (Condenser Mic)
18. Stage Ambience Mic – **R** (Condenser Mic)
19. Tracks – **L**
20. Tracks – **R**

Stage Monitoring System Outputs

Aux 2: Stage Monitors (**Down Stage**)
Aux 3: Stage Subs
Aux 4: Stage Monitors (**Stage Side Fills**)

FOH Output Routing

Matrix 1&2: Main PA Speakers
Aux 9-10: FOH Subs

Number of Monitors Speakers to Deploy

I. Stage Sub for the Cast – 2
II. Stage Monitors for the Cast – 4

Additional Backline Equipment Needed

I. Condenser Microphones - **1**
II. Audio Stage Box (**32 Channels** with **24 Inputs** & **8 Returns**)

PROBLEM SOLVING: COMMON SOUND ISSUES

During live performances, several sound issues can arise. Being prepared for these common problems ensures the show goes on smoothly:

- - Feedback: Often caused by improper microphone and speaker positioning.
- - Interference: Wireless systems can pick up unwanted signals.
- - Dead Zones: Areas in the audience where sound coverage is inadequate.

PROBLEM SOLVING: EQUIPMENT FAILURES

Equipment failures are one of the most challenging issues to handle during a live performance. Common failures include:

- - Microphone Dropouts: Wireless mics losing connection.
- - Speaker Failures: Blown speakers or disconnections.
- - Console Problems: Malfunctions with the mixing desk or power issues.

Preventative Measures:

- - Always have backup equipment.
- - Run thorough tests before the performance.
- - Keep spare cables and batteries on hand.

FEEDBACK AND INTERFERENCE SOLUTIONS

Managing feedback and interference is crucial in delivering clear sound. To prevent feedback:

- - Use directional microphones and keep speakers away from microphones.
- - Use Graphical equalizers or feedback suppressors.
- - Wireless interference can be minimized by ensuring all devices are on separate, designated frequencies and use of antennas.

COMMUNICATION SYSTEMS

Communication is critical to coordinating sound cues effectively during a live performance.

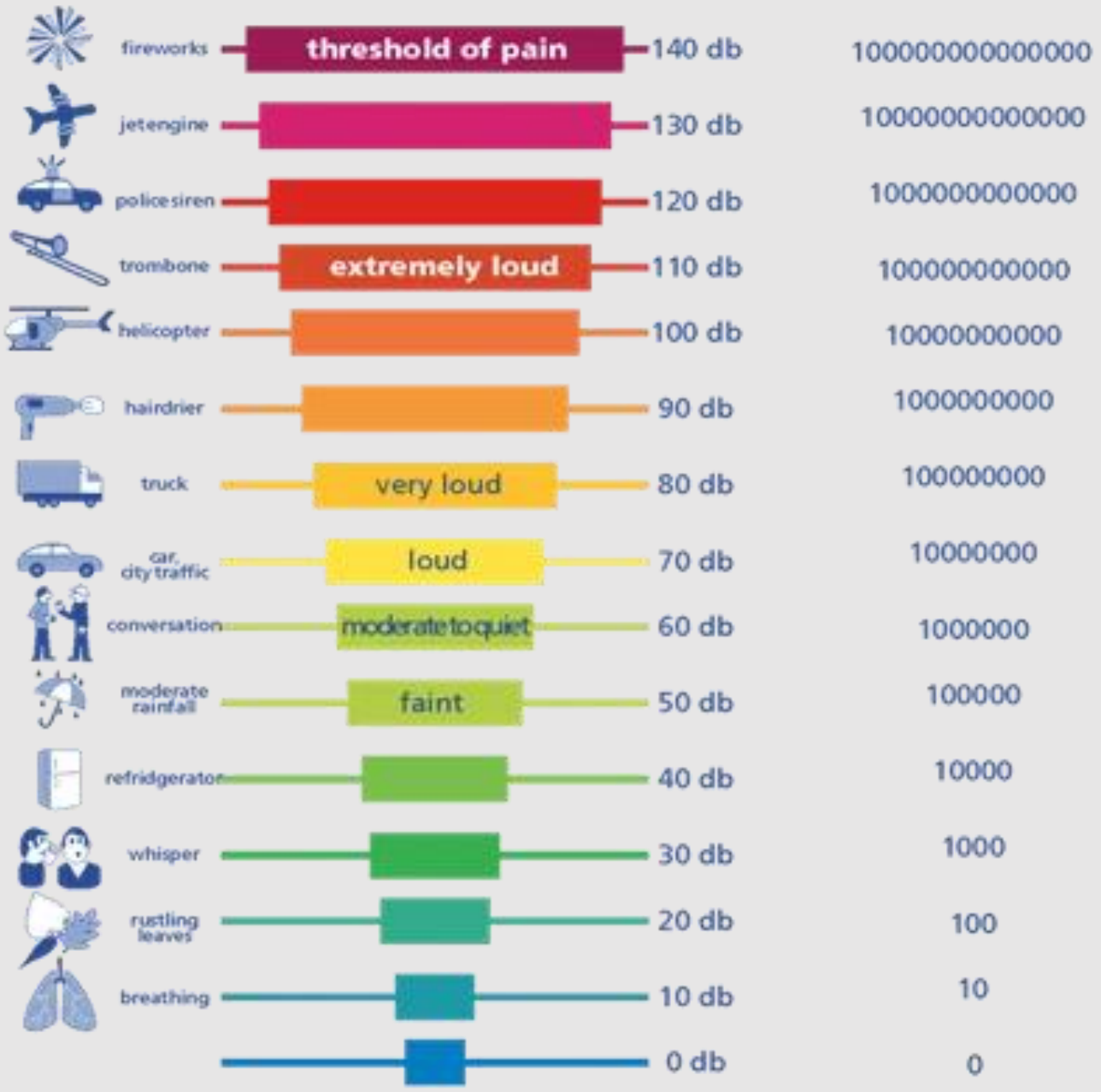
- - Intercom Systems: These are used for communication between the director, stage manager, and sound operator.
- - Cue Sheets: Organize sound cues to ensure timing accuracy.
- - Backup Plans: In case of intercom failure, have a secondary method of communication like hand signals.

REGULATIONS AND SAFETY STANDARDS

Following regulations and safety standards is necessary to protect both the audience and the crew.

Key regulations include:

- - Sound Level Limits: For audience safety, ensure sound levels stay between 85-90 dB.
- - Health and Safety Guidelines: Crew members should wear ear protection during loud scenes.


fireworks
threshold of pain
140 db
100000000000000
jetengine
130 db
10000000000000
police siren
120 db
1000000000000
trombone
extremely loud
110 db
100000000000
helicopter
100 db
10000000000
hairdrier
90 db
1000000000
truck
very loud
80 db
100000000
car, city traffic
loud
70 db
10000000
conversation
moderate to quiet
60 db
1000000
moderate rainfall
faint
50 db
100000
refridgerator
40 db
10000
whisper
30 db
1000
rustling leaves
20 db
100
breathing
10 db
10
0 db
0

HEALTH AND SAFETY FOR THE SOUND CREW

- Protecting the hearing of sound engineers and other crew members is paramount. This can be done by:
- - Monitoring decibel levels during loud moments.
- - Scheduling regular breaks from high-volume sound during rehearsals and performances.

BALANCING SOUND FOR THEATER AUDIENCES

- Achieving a balanced sound mix ensures that every member of the audience has a consistent auditory experience.
- - Audience Distribution: Consider seating arrangements and use delay systems in large venues to avoid echo.
- - Sound Delays: Use strategic speaker placement to prevent sound from reaching different sections at different times.

SOUND LEVELS AND ACOUSTICS

- Controlling sound levels and understanding acoustics in a theater is vital:
- - Use acoustic panels to minimize echo in venues with hard surfaces.
- - Adjust sound levels based on the size of the venue to ensure even sound distribution.
- - For small spaces reduce on the number of speakers and gain levels, wide spaces some times need extra speakers

SOLVING ACOUSTIC ISSUES ON STAGE

- Stage acoustics can often cause problems such as echoes or muffled sound. Solutions include:
- - Analyze the texture of the stage surface
- - Using stage monitors or in-ear systems for performers.
- - Ensuring sound is balanced across the stage so that performers can hear themselves and each other.

IMPORTANCE OF PRE-PRODUCTION TESTING

- Pre-production testing is key to avoiding sound issues during live performances.
- - Sound Check: Test all microphones, speakers, and equipment during rehearsals.
- - Sync Cues: Coordinate with lighting and other technical departments to ensure smooth transitions.

SUMMARY & Q&A

In this session, we've covered:

- The importance of technical riders.
- Problem-solving strategies for common sound issues.
- Effective sound balancing techniques for different venues.

The floor is open for questions.

Have a blessed week

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Illuminating Sound