

# Sound Design for Media — Workbook

This workbook accompanies the Sound Design for Media course and gives you practical exercises, structured worksheets, and production templates for every module. Complete each section alongside the corresponding course module, then use the action plan and templates on your first real project. Every exercise produces a deliverable you can add to a portfolio or use in a professional workflow.

## The Language of Sound Design

Develop your critical ear and build the analytical vocabulary you will use in every sound design session.

### Exercise: Three-Pass Scene Analysis

Choose a film or TV scene between 2 and 5 minutes long that you know well. Watch it three times using the structured method from the lesson. Write your observations for each pass in the prompts below. Aim for at least 5 observations per pass.

- Pass 1 (muted video): List every moment where you anticipated a sound — what type of sound did you expect and why?  

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- Pass 2 (audio only, eyes closed): Which of the six sound design categories (DX, MX, SFX, Foley, BG, Design) could you clearly identify? What surprised you or was absent?  

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- Pass 3 (audio + video): Note two moments where the sound design directed your attention away from the most obvious visual element. How did it do that?  

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- Overall: Which single sound design choice had the most emotional impact on you, and which of the three perceptual functions (synchrony, continuity, emotion) was it serving?  

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### Worksheet: Scene Sound Audit

Pick a different scene from the one you used in the exercise above. Watch it once and fill in the fields below for each of the six audio categories present in the scene.

Scene title and timecode range  

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Dialogue (DX) — is it production sound or ADR? Any noticeable noise or processing?  

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Music (MX) — source or score? Tempo relative to scene pace?  

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Sound Effects (SFX) — list the 3 most prominent hard effects  

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Foley — can you hear footsteps, cloth, props? What surfaces are represented?  

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Ambience (BG) — describe the primary bed and any accent layers you can isolate  

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Design Elements — any synthesised or unidentifiable sounds? What emotional purpose do they serve?

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Your overall assessment: is the mix dialogue-heavy, effects-heavy, or ambience-heavy — and does that choice serve the scene?

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### Checklist: Listening Journal Setup

- Create a spreadsheet or notebook with columns: Date, Project/Scene, Timecode, Category, Observation
- Log at least one critical listening entry per day for the duration of this course
- After 10 entries, review and identify which category you find hardest to isolate — plan a targeted listening session for that category
- Identify one professional sound designer whose work you will study in depth across this course
- Share a listening journal entry with a peer or mentor and discuss your interpretation

## Recording Foley and Ambience

Set up your recording environment, capture your first foley and ambience assets, and organise them using a professional file taxonomy.

### Exercise: Home Foley Session

Record a minimum of 20 usable foley assets in a single 90-minute session. Use the three categories — footsteps, props, cloth — and follow the -18 dBFS gain staging rule. Label every file immediately after recording using the CATEGORY\_DESCRIPTION\_SURFACE\_TAKE format.

- Before recording: list the 5 props you have selected and the surface material each will interact with. What three shoe types can you replicate with available materials?

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- After recording: for each take, note whether the peaks stayed within the -12 to -18 dBFS target. Which takes clipped and what caused it?

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- Listen back to your footstep recordings on headphones and compare to a professional footstep library sample (BBC or Freesound). What are the three most noticeable differences?

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- Which of your 20 assets would you consider immediately usable in a project, and which need re-recording? What would you change?

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### Worksheet: Recording Environment Assessment

Before your first recording session, assess your recording environment and document the findings below. Revisit and update this sheet after your first recording session.

Room dimensions (approximate, in metres)

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Primary noise sources identified (HVAC, traffic, appliances) — note frequency character of each

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Microphone model and pattern used

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Interface model and recording sample rate / bit depth

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Acoustic treatment in place (none / soft furnishings / panels / blankets)

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Peak background noise level measured with no performance (dBFS or dBA if you have a meter)

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Signal-to-noise ratio estimated: what is the quietest prop you can record cleanly?

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Three changes you could make to improve the recording environment without buying new equipment

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### Checklist: Foley Asset Library Startup

- Create a top-level folder structure: FOLEY / AMBIENCE / SFX / ROOMTONE
- Within FOLEY, create sub-folders: FEET, PROPS, CLOTH
- Name every file immediately after recording — never use DAW default names
- Record at least one 30-second room tone for every room you record in
- Download and catalogue 10 ambience beds from BBC Sound Effects Library or Freesound.org covering: interior residential, interior office, exterior city, exterior nature
- Back up your library to a second location (external drive or cloud) before the end of Module 2

### Exercise: Ambience Deconstruction

Download an ambience bed from the BBC Sound Effects Library. Import it into your DAW and use EQ analysis (a spectrum analyser plug-in) to identify its frequency components. Then try to recreate the same ambience by layering 3 separate recordings from different sources.

- What are the dominant frequency bands in the reference ambience bed? (Note approximate centre frequencies and relative levels)
- List the 3 sources you used to recreate it and describe what each contributes spectrally
- When you sum your 3-layer recreation alongside the reference, what is the most noticeable difference and what would you record next to close that gap?

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## Editing and Layering in the DAW

Build a professional session architecture, place every sound asset in precise sync with picture, and apply spectral layering technique to create depth.

### Worksheet: Spotting Sheet

Choose a 2-minute scene from your own project or a royalty-free short film. Watch it three times and complete a full spotting sheet. Every row represents one sound event that needs to be addressed in post-production.

Project title

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Reel / scene number

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Picture lock date

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Row fields to fill for each event: Timecode In | Timecode Out | Category (DX/MX/SFX/Foley/BG/Design) | Description | Priority (1/2/3) | Notes

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Total count by category: how many SFX, Foley, and BG events did you spot?

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Which 3 events are Priority 1 and why?

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Estimated recording time needed based on your event count

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## Exercise: Sync Precision Drill

Take a 30-second clip with at least 5 distinct impact events (door closing, object dropping, footsteps). Place each sound event three times: exactly on frame, 2 frames early, and 2 frames late. Export three versions and listen back on the following day without looking at the timeline. Can you identify which version is which by ear alone?

- Which of the three placements felt most natural for each type of impact in your clip?
- Did early or late placement change the emotional quality of any event? Describe specifically.
- At what point does the offset become objectionable rather than a creative choice, in your judgement?

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## Checklist: DAW Session Setup Checklist

- Confirm project sample rate and frame rate match the video file before importing any audio
- Create the six track groups (DX, MX, SFX, Foley, BG, Design) with corresponding stem buses
- Colour-code track groups consistently (one colour per category) and save as a template
- Set start timecode to 00:59:58:00 to allow a 2-second identification head
- Name the session file with project title, reel, date, and version number
- Verify mono compatibility before adding any new layer (toggle master bus to mono)
- Archive a dated backup of the session at the end of every working day

## Processing, Mixing, and Delivery

Apply EQ, reverb, and compression to integrate your sounds, build a balanced mix, and deliver a complete stem set.

### Exercise: Acoustic Matching Exercise

Take a hard effect from your library that you know sounds 'out of place' in a scene. Import it alongside the scene ambience. Use a parametric EQ to sculpt the hard effect until it matches the tonal balance of the ambience. Document your EQ moves in the prompts below.

- Before EQ: describe the tonal mismatch in plain terms (e.g. 'the effect is thin and bright against the warm, low-mid-heavy room')
- List each EQ move you made: frequency, gain change, filter type, and the reason for the move
- After EQ: does the effect sit in the scene? What one additional processing step (reverb, compression, or saturation) would help most?
- Compare your matched version to a colleague's or to a reference film — what did you miss that they addressed?

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## Worksheet: Mix Balance Reference Sheet

Use this sheet to document the target and measured levels for each stem bus in your final mix. Fill in the target level column first, then the measured level after your mix pass, and note any adjustments made. Project title and mix version

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Target platform and loudness spec (e.g. YouTube -14 LUFS, Netflix -27 LUFS dialogue)

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DX bus: target level | measured level | adjustment made

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MX bus: target level | measured level | adjustment made

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SFX bus: target level | measured level | adjustment made

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Foley bus: target level | measured level | adjustment made

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BG bus: target level | measured level | adjustment made

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Full mix integrated loudness (LUFS) measured after final bounce

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True peak maximum (dBTP) — confirm below -1 dBTP

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Mono compatibility: any elements lost or phase-cancelled? List them

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### Checklist: Pre-Delivery Quality Control

- Play all stems summed against the locked picture from first frame to last — verify sync holds throughout
- Confirm no stem file peaks above -1 dBFS
- Toggle the master bus to mono and verify no element disappears or phase-cancels
- Spot-check 10 sync points from your spotting sheet against the delivered stems
- Confirm all stem files are the identical duration (to the sample)
- Listen to the full programme on headphones, laptop speakers, and a phone speaker
- Verify all file names follow the naming convention: PROJECTTITLE\_REEL\_STEM\_DATE\_VERSION
- Deliver a FULLMIX reference bounce alongside the stems
- Archive the final session with all assets embedded or consolidated

### Your Action Plan

1. Complete the three-pass listening analysis on one scene before starting Module 2 — do not skip this step; it calibrates your ear for everything that follows
2. Record your room tone and basic ambience library (at least 4 acoustic environments) in Week 1 so you have assets ready for editing exercises
3. Build your DAW session template in Module 3 Lesson 1 and save it before adding any project assets — use it on every future project
4. Complete a spotting sheet for every project scene before opening your DAW — the discipline of spotting first prevents aimless editing
5. Practice the sync precision drill (on frame, 2 early, 2 late) on at least 3 scenes before your first real project; your ear needs the training, not just your intellect
6. Set a weekly listening journal target: minimum 3 entries per week, across different genres and formats
7. Mix your first complete sound design on a royalty-free or personal short film before attempting client work — the stakes-free environment lets you make and learn from every mistake
8. Deliver a stem set (even for a personal project) using the correct naming convention and timecode alignment on every job — build the habit before it matters professionally
9. Collect feedback from at least one other person (filmmaker, editor, or fellow sound designer) on your first complete mix before calling it done
10. Revisit the spectral layering exercise after completing your first real project — document what you would add or change if you had more time









