

Calls from the Field

A Vintage Telephone Listening Station for Anthropology Teaching

A step-by-step guide for instructors — no technical background required

1. What Is This Project?

A vintage rotary telephone sits on a table. A visitor picks up the handset and hears a dial tone. They dial a three-digit number. And then, instead of reaching a person, they hear a voice. A researcher, somewhere in the world, calling back from the field.

That is the essential experience of Calls from the Field: a listening station built around an analog rotary telephone, connected to a small offline computer that routes each dialed number to a pre-recorded audio clip. The technology is deliberately simple. The experience is not.

The tradition it builds on

Anthropologists have long communicated from the field through letters. Margaret Mead's *Letters from the Field 1925–1975* remains one of the discipline's most intimate documents, not a polished monograph, but a running correspondence: uncertain, sensory, alive to the strangeness of being somewhere else (Mead 1977). Allaine Cerwonka wrote to Liisa Malkki from Melbourne (Cerwonka & Malkki 2007); Malinowski asked his student, Camila Wedgwood, to write to him; Charles Briggs (2014) composed a letter to Freud from the Delta Amacuro rainforest! These correspondences are not marginal to anthropological knowledge; they are where the method was being made.

The telephone extends this tradition into a new register. Where a letter arrives folded in an envelope, a phone call arrives in real time, with breath and hesitation and the sound of wherever the caller is standing. Calls from the Field translates that quality into a listening experience: pre-recorded audio delivered through the handset of a rotary phone, so that each clip feels less like playback and more like receiving a call from somewhere far away.

The paradox that Derrida (1987) identified in the postcard (simultaneously intimate and public, personal yet open to anyone) applies equally here. Whoever picks up the phone hears something addressed to no one in particular and to them specifically. The physical act of lifting a handset, of holding it to your ear, creates a kind of privacy in public space. It is a different quality of attention than pressing play on a screen.

What kinds of content can you put on it?

The system is content-agnostic: what you record and assign to each number is entirely up to you. The primary use case this guide is designed around is calls from the field: short, first-person audio narratives recorded by researchers describing a specific moment or encounter from their fieldwork. But the same hardware supports many other kinds of content:

- **Primary use case:** Calls from the field.

A researcher's voice, speaking in the present tense as if calling from wherever they were: "I'm in my third week in Oaxaca and something happened yesterday that I don't quite know what to do with." Two to four minutes. A specific moment, not a summary of findings. The listener holds the handset and leans in.

- Archival recordings.

Historical voices from the discipline's archive: Margaret Mead on what cultural anthropology is, Clifford Geertz on thick description, etc.—in their own words, through the receiver.

- Oral histories and testimonies.

Recordings from research collaborators, community members, or interlocutors speaking about their own experiences, contexts, or perspectives.

- Curated soundscapes.

Ambient recordings from field sites (a market, a ceremony, a forest at dawn, etc.) with a brief spoken introduction giving context before the sound takes over.

- Student-produced audio glossaries.

Short recordings made by students as a course assignment, in which each student/group of students explains a key anthropological concept in their own voice: concise, accessible, and free of jargon, in the spirit of a social media explainer rather than a lecture. Think of it as the audio equivalent of a TikTok: one term, one voice, under two minutes. Dial 201 for 'cultural relativism.' Dial 202 for 'liminality.' Dial 203 for 'positionality.' The finished clips go directly into the phone system, making the student's work tangible, public, and immediately usable by anyone who picks up the handset.

- Exhibition and public programming.

A numbered taxonomy of voices for a museum installation, conference booth, or departmental open house. Each dial position unlocks a different perspective; visitors choose what they want to hear.

Why a rotary phone?

The physical form of the telephone is part of the meaning. The rotary dial is slow by design; you cannot rush it. Each number requires a deliberate gesture: pull, release, wait. That friction is intentional. It frames listening as an intentional act in a way that pressing play on a phone never does.

The handset also creates a particular quality of attention. Holding it to your ear is a posture of private listening in public space. Other people can see you listening, but they cannot hear what you hear. The experience is yours.

The project was directly inspired by an installation at Freud's museum in London, where visitors could dial to hear recordings of Anna Freud. The telephone there became an interface not for communication, but for transmission, a way of reaching back across time to a specific voice. Calls from the Field works the same way, but the voices do not come from the past. They come from wherever the fieldwork happened. The distance is geographic, not historical.

A note on accessibility

As an audio-only medium, this installation is not fully accessible to visitors who are deaf or hard of hearing. This is a real limitation and worth acknowledging openly. Content loaded onto the system can and should be made available in alternative formats alongside the telephone: printed transcripts placed near the handset, a QR code linking to a text version, or a digital display showing the transcript as the audio plays. When this project is used as the basis for a student assignment—whether students are producing field calls, audio glossaries, or any other spoken content—accessibility becomes a genuine learning opportunity. Students can be asked to consider how their recording will reach listeners who cannot hear it, and to produce a written transcript or alternative text version as part of their deliverables. Thinking through accessibility is not an afterthought to communication design; it is part of what good communication design means.

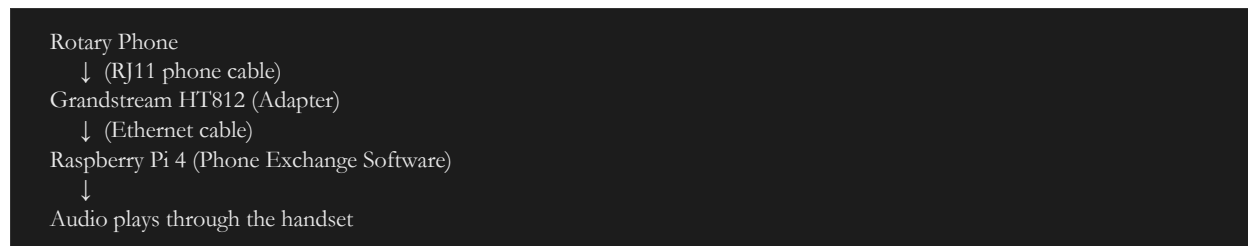
2. How the System Works (in non-technical terms)

You do not need to understand the technical details to use this system. But a brief overview helps when something goes wrong or when explaining it to others.

There are three physical components, connected in a simple chain:

Component	What it does
Vintage rotary phone	The thing the visitor picks up. It plugs into the adapter via a standard phone cable (RJ11).
Analog Telephone Adapter (ATA)	Translates the analog signal from the rotary phone into a digital one the Pi can understand. Think of it as a language interpreter between old and new technology.
Raspberry Pi (the brain)	A small computer running the phone exchange software. It receives the dialed number and plays the correct audio file back through the handset.

The chain looks like this:



The system is entirely self-contained. It does not require an internet connection, a router, or any ongoing service. Once configured, it runs offline indefinitely. You can pack it into a bag, bring it to a classroom or an exhibition, plug it in, and it will work.

3. Hardware You Will Need

The following items are sufficient to replicate this project. Prices will vary by region and supplier.

Item	Notes
Raspberry Pi 4 Kit	Includes the Pi board, power supply, and case. Any Pi 4 with at least 2GB RAM will work; 4GB is recommended.
Micro SD Card (32GB or 64GB)	Stores the operating system and all audio files. 32GB is adequate; 64GB gives more headroom for longer or more numerous recordings.
Grandstream HT812	The Analog Telephone Adapter (ATA). This specific model accepts two phones (for any potential future projects) and has been tested with this setup. Other ATAs may work but will require different configuration steps.
Opis 60s Cable Rotary Phone	A modern phone built in a classic rotary style. Works with standard cables, no batteries or conversion required. Other vintage phones with pulse dialing will also work.
Ethernet Cable	One standard cable to connect the HT812 directly to the Pi. No router needed beyond initial setup.
Micro-HDMI to HDMI Cable	Needed only during initial setup to connect the Pi to a monitor, although a headless (no monitor) setup is also perfectly possible. Often included in Pi kits.
Monitor, keyboard, and mouse	Needed briefly during first-time setup only. Can be borrowed from any computer setup. Again, a headless setup is possible.

NOTE

Once the system is configured, the monitor, keyboard, and mouse can be disconnected. The Pi runs headlessly (without a screen) during normal use.

4. Software Setup

The software that runs the phone exchange is called Incredible PBX 2027. It is a pre-built package that includes everything needed: the phone routing engine (Asterisk) and a web-based dashboard (FreePBX) where you manage your recordings and dial assignments. You do not need to install these separately.

4a. Downloading the software image

Use the following link to download the Incredible PBX image for Raspberry Pi. This is a verified mirror that avoids the corrupted-file errors sometimes encountered on other sources:

<https://filedn.com/lBgbGypMOdDm8PW0oOiBR7j/IncrediblePBX2027-RaspberryPi/incrediblepbx2027-raspi.zip>

IMPORTANT

Do not double-click the downloaded .zip file to open it. Mac's built-in Archive Utility often fails with large images. Use Balena Etcher or Raspberry Pi Imager instead — both handle the unzipping automatically during the writing process.

4b. Writing the image to the SD card

1. Download and install Balena Etcher (free, at balena.io/etcher) or Raspberry Pi Imager.
2. Insert your Micro SD card into your computer using a card reader.
3. Open Etcher or Pi Imager. Select the downloaded .zip file as your source.
4. Select your SD card as the target. Double-check you have the right drive — this process erases everything on it.
5. Click Flash (or Write). The process takes 5–10 minutes.
6. When complete, eject the SD card and insert it into the Raspberry Pi.

5. First Boot and Initial Configuration

5a. Starting the Pi for the first time

Connect the Pi to a monitor (via Micro-HDMI), keyboard, and power. On first boot, the software resizes itself to fill the SD card. This takes 5–10 minutes. Text will scroll on screen; this is normal. Do not interrupt it.

When the Pi is ready, you will see a login prompt. Note the IP address displayed on screen (e.g., 192.168.1.97). You will need this to access the dashboard.

TIP

If the screen goes blank during first boot, wait. It is still working. Only restart if nothing has changed after 15 minutes.

5b. Accessing the dashboard

From any computer or tablet on the same local network (or connected directly to the Pi), open a web browser and type the Pi's IP address into the address bar. You will reach the FreePBX dashboard. It is the control room where you manage everything going forward.

NOTE

You do not need the monitor, keyboard, or mouse after this point. All further configuration is done through the dashboard in a web browser.

5c. Assigning static IP addresses

By default, devices on a network receive a different IP address each time they restart. This causes problems for a standalone system where the Pi and the adapter need to find each other reliably. Setting static (fixed) IP addresses solves this.

Device	Recommended Static IP
Raspberry Pi 4	192.168.1.100

Grandstream HT812	192.168.1.200
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The Pi's static IP is set in its network configuration. The HT812's static IP is set through its own web interface (type its current IP into a browser). Both devices should be on the same subnet (both starting with 192.168.1).

6. Connecting the Rotary Phone

6a. Physical connections

7. Plug the rotary phone into the Phone 1 port (FXS 1) on the back of the HT812 using an RJ11 phone cable.
8. Plug one end of an Ethernet cable into the WAN port of the HT812.
9. Plug the other end of the Ethernet cable into the Ethernet port of the Raspberry Pi.

That is the complete physical setup. No router, switch, or internet connection is involved.

6b. Configuring the HT812

Access the HT812's web interface by typing its IP address (192.168.1.200) into a browser. Navigate to the Profile 1 and FXS Port 1 settings and apply the following:

Setting	Value
SIP Server	192.168.1.100:5061
Pulse Dialing	Yes (required for rotary phones)
Extension Registration	501 (the phone registers as Extension 501)
NTP Server / Time Sync	Disabled (not needed offline)
Firmware Auto-Upgrade	Disabled

IMPORTANT

Pulse Dialing must be set to Yes. Rotary phones generate pulses, not tones. Without this setting, the HT812 will not understand what number has been dialed.

7. Preparing and Adding Your Recordings

7a. What a 'call from the field' sounds like

If you are using this system primarily for the Calls from the Field use case—field stories narrated by researchers—the register of the recording matters as much as the content. A good field call is not a summary of research findings. It is a specific moment: a place, a person, an object, an unexpected turn. It is told in the

first person, present-tense where possible, as if the caller is still somewhere out there and this is what they have to report.

Think of the difference between a letter and a paper. A paper argues. A letter describes what it is like to be somewhere. A call from the field does the same. It gives the listener a felt sense of what fieldwork involves: the uncertainty, the relationships, the slow accumulation of meaning, the moments you almost didn't write down.

TIP

A useful prompt for narrators: 'Tell me about a specific moment in the field—something you were doing, or something that happened—that you still think about.' Then let them talk. The story is usually already there.

7b. Preparing audio files

The system expects audio files in a specific format. Before uploading, convert recordings to:

- File format: WAV
- Channels: Mono (not stereo)
- Sample rate: 8,000 Hz (8kHz)
- Bit depth: 16-bit

Free tools such as Audacity (Windows/Mac/Linux) can handle this conversion. If source recordings are MP3s or video files, export or convert them to the above specification before uploading.

TIP

Keep clips to 2–4 minutes. Longer is possible but can feel unwieldy in a walk-up context. For calls from the field, shorter often works better: one moment, well told.

7c. Uploading recordings to the dashboard

10. In the FreePBX dashboard, go to Admin > System Recordings.
11. Click Add Recording and upload your WAV file. Give it a clear name (e.g., Chen_Market_Oaxaca or Mead_1975).
12. Go to Admin > Announcements and create a new Announcement linked to that recording. Set the destination after playback to Hangup.
13. Repeat for each clip.

7d. Assigning dial numbers (Misc Applications)

Each dial number is assigned through a Misc Application — a shortcut that tells the system which announcement to play when a visitor dials a given number.

14. Go to Applications > Misc Applications.
15. Click Add and set a Feature Code (e.g., 101) and a Description (e.g., Chen — Market in Oaxaca).
16. Set the Destination to the Announcement you created for that clip.

17. Save and repeat for each dial number.

Dial Number	Example Assignment
101	Field call: Dr. Chen — unexpected encounter at the Oaxaca market
102	Field call: Dr. Reyes — first week in the community
103	Field call: Dr. Nkosi — a conversation she almost didn't record

NOTE

With a rotary phone, there is a natural 3–5 second pause after the last digit before the system processes the number. This is normal. The system will time out and play the clip automatically. Do not dial a fourth digit.

8. Standalone Optimization (Offline Mode)

Out of the box, Incredible PBX is designed to run on a network with internet access. It checks for updates and waits for a connection on startup. For a standalone exhibit, these behaviors are adjusted so the system boots quickly and reliably without internet.

8a. Disabling internet-dependent startup checks

The Pi's startup script (`/etc/rc.local`) is responsible for what happens when the system boots. By default, Incredible PBX includes a 5-minute wait for network connectivity. This check is disabled to allow the Pi to be ready in under 2 minutes. This modification is already active on this build.

8b. The automatic recovery script

A short script is added to the end of the boot sequence to ensure the phone engine (Asterisk) starts correctly even if there is a brief timing issue on first load. The script waits 5 seconds after boot and restarts the phone engine:

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sleep 5
/usr/sbin/fvconsole restart
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This is already in place on this system. Even if the phone engine shows as unavailable immediately after boot, it will self-correct within a few seconds.

9. Troubleshooting

Most problems resolve within a minute or two of boot. The table below covers the most common issues.

Symptom	What to do
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Download fails or file appears corrupted on Mac	Do not use Mac's built-in Archive Utility. Use Balena Etcher or Pi Imager directly with the .zip file. Re-download if the issue persists.
Pi takes a long time on first boot (5–10 minutes)	This is normal. The software is resizing to fit the SD card. Wait it out. Do not unplug.
Dashboard shows “Asterisk not running” in red	Wait 10–15 seconds. The recovery script will restart it automatically. If the message persists after 30 seconds, restart the Pi.
Dialing a number produces no audio	Check that the Misc Application exists for that number, is linked to an Announcement, and that the audio file was uploaded correctly as a WAV in the right format.
Rotary dial not recognised / no response to dialing	Confirm Pulse Dialing is set to Yes in the HT812's FXS Port 1 settings. Rotary phones use pulse signals, not tones — if this is off, the adapter ignores the input.
No dial tone when picking up the handset	Check physical connections: RJ11 from phone to HT812 Phone 1 port; Ethernet from HT812 WAN to Pi. Check that Extension 501 is registered in the FreePBX dashboard.
System works but is slow to respond after dialing	Normal. The rotary pulse system has a built-in 3–5 second inter-digit timeout. The system waits briefly to confirm no more digits are coming before triggering playback.

10. Expanding the System (Future Development)

The system as described covers what might be called the inbound mode: the visitor picks up the phone, dials, and chooses what to hear. The same hardware supports a second mode that inverts this dynamic entirely.

Phase 2: The phone rings

In this mode, the phone rings on its own every few minutes. When a visitor picks it up, a recording plays automatically, as if a call is coming in from the field rather than being placed by the visitor. They did not choose to call. They were called.

This is particularly resonant for the Calls from the Field concept. The phone ringing in an otherwise quiet room implies that someone, somewhere, has something to say and is trying to reach you. When you pick up the handset, you find out what it is.

This mode is implemented by having the Pi create an automated call file at set intervals and deliver it to the HT812, which rings the phone. A simple script running on the Pi on a cron timer is sufficient. No additional hardware is required.

It works well for ambient exhibition contexts where the phone needs to attract attention rather than wait for an initiated interaction — or simply for classroom moments when you want the field to intrude.

Appendix: Quick Reference Card

Print or cut this section as a reference during setup and operation.

Item	Detail
Pi static IP	192.168.1.100
HT812 static IP	192.168.1.200
HT812 SIP server setting	192.168.1.100:5061
Pulse Dialing setting	Yes (Profile 1 > FXS Port 1)
Extension number (phone)	501
Audio format	WAV, Mono, 8kHz, 16-bit
Dashboard access	Type Pi's IP into any browser on the same network
Dial assignments location	FreePBX > Applications > Misc Applications
Recordings location	FreePBX > Admin > System Recordings
Recovery script	Runs automatically 5 seconds after boot
Recommended clip length	2–4 minutes per recording