

Enemy Voice

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On 5 February 2006, immediately following its broadcast of the Super Bowl in the United States, the Fox network aired a “greatest hits” episode of its prime-time cartoon comedy *Family Guy*. First up was a skit featuring Osama bin Laden. After the graphic “Somewhere in Afghanistan” fades away, we see the cartoon bin Laden taping his latest video message to the American public. The camera pans over a makeshift studio in a cave, and the picture fixes on bin Laden, who begins to deliver a speech: “This is a message to all American infidels. Prepare to die in a sea of holy fire. You will be punished for your decadent ways on the first day of Radaman [sic]. You . . .” At this point, the cartoon bin Laden realizes his mistake in pronouncing *Ramadan* and begins laughing uncontrollably.¹ The people behind the camera join him in hysterics, and by the end of the two-minute sequence, in which he trades insults with off-camera characters, the cartoon bin Laden appears on camera with a rubber chicken and sunglasses in an attempt to “get the laughs out” so he can deliver his message.

The skit pokes fun at bin Laden’s media celebrity. The logic is impeccable: if he is making tapes for international broadcast, the blooper reel must be somewhere to be found. The conceit of the skit is that it looks just like a clip viewers might catch at the end of a Hollywood comedy or action film while the credits roll. However, we can read a more serious point out of the skit: Osama bin Laden’s main presence in American culture is as a media phenomenon. Indeed, the effects of his audiovisual presence in the U.S. (and more broadly “Western”) media are directly tied to the structural absence of his body. He speaks to Americans, though the Bush administration’s military has not found the man. Bin Laden operates in a strange space between subject and object in U.S. political discourse. Particularly interesting here is the status of bin Laden’s voice. For, as I will

argue, while his image circulates freely in the Western media, his voice is more tightly controlled, invested with meaning, and deployed to a variety of political ends that have little to do with bin Laden himself. As religious studies scholar Bruce Lawrence has noted, bin Laden's voice has been "tacitly censored, as if to hear it clearly and without cuts or interruption would be too dangerous."² That is why a video of bin Laden laughing—his voice out of his *own* control—is so striking.

In this essay, I analyze the mediatic condition of the bin Laden tapes and briefly trace the career of a particular recording that purported to carry bin Laden's voice: a four-and-a-half-minute recording provided to al-Jazeera and broadcast on 12 November 2002. Titled "To the Allies of America," it was delivered on audiotape to al-Jazeera and commented on six attacks undertaken by Islamicist groups in different regions of the world during 2002, claiming that they represented a form of reciprocal justice.³ But more important for my story is the way in which the U.S. government attempted to authenticate the tape. They used computer-based voiceprint analysis, a technique more suitable for probability than certainty. According to the BBC, between 11 September 2001 and November 2002 five tapes had emerged claiming to carry the voice of bin Laden. Only the two 2001 tapes had been "verified" as bin Laden. None of the three 2002 tapes, nor a tape that appeared on 10 February 2003 (shortly before Bush's invasion of Iraq), was successfully verified through voiceprint techniques.⁴

Voiceprinting has a long history, and bin Laden's status as a media celebrity puts him in some famous company. For instance, during the 1980s in the United States, there was a brief flare-up of news stories of a voiceprinted tape that purported to demonstrate that Elvis Presley was still alive. Though the voiceprinting technologies were analog, the techniques were the same, and so were the rather strange conclusions—that a verified tape of Elvis "proved" that he was alive.⁵ In a twisted way, Elvis and bin Laden share a certain media history as celebrities whose voices stand in for their missing bodies and whose voices were believed to be so powerful as to be able to have effects in themselves.⁶

There are certainly other means of verification than voiceprinting. Lawrence, in his introduction to a volume of Osama bin Laden's speeches, cites the November 2002 speeches as the work of bin Laden on the basis of their style and content.⁷ Although I will discuss the possibilities and limits of voiceprinting technology, the more important point is that the impossibility of technologically verifying the tape actually drove its circulation and was central to the effects attributed to it. In other words, the fact that the tape might have been bin Laden's voice was more important than the eventual conclusion that it could not be verified as his voice. Difficulties in verifying the bin Laden tape have an important relationship

with the difficulties in verifying the bin Laden body. As one commentator pointed out: “It has proven difficult to find a person who is dead and alive simultaneously, who has been buried, and yet escapes burial after the ceremony.”⁸ In a context where it is impossible to locate his body, it becomes even more important to locate him in other ways: “The disavowal of physical discovery effectively traps bin Laden within media where he can be ‘found.’ . . . These forms of representation become the substitute for physically finding him, where his image becomes a battle-ground for modern ideological conflict.”⁹

This is exactly the story of the November 2002 tape. Though a number of other tapes of bin Laden have since emerged (including videotapes), the November 2002 tape surfaced at a fortuitous time for the Bush administration. It was used in the run-up to the invasion of Iraq and was a useful occasion upon which to remind the American public of the so-called new conditions it had to endure post-9/11. The function of these recordings in the Western media is, primarily, to introduce—or induce—a certain level of productive uncertainty. Each tape was caught up in larger plays of power. The fact that an evidentiary burden is placed upon the tapes, the fact that they cannot be identified for certain, makes the recordings platforms for a whole range of political declarations and actions.

To understand the power of bin Laden’s voice, one need only compare recordings purported to carry his voice with images that present his face. Though the third Gulf War temporarily distracted American attention from bin Laden to Saddam Hussein, it is still a relatively easy task to find a clear presentation of bin Laden’s face in the United States. Since September 2001, there have been moments when bin Laden’s face was literally everywhere in the United States. Even if the style of depiction and protocols for interpreting bin Laden’s portrait weren’t familiar, his face became familiar through its endless repetition. Bin Laden’s face showed up in newspapers, on television shows, all over the Internet, on billboards, T-shirts, sides of trucks, on toilet paper, and in countless other locations. His face was held up as an icon of enmity; an object to be destroyed, disfigured, or, synecdochically, defaced. His pictures were cleaned up and Photoshopped—almost beautified as if in preparation for their sacrifice—and then presented for scrutiny and analysis.

Consider, for instance, a *Harper’s* article by Bill Wasik that analyzes bin Laden’s eyes, beard, turban, skin, and smile, in an Associated Press photo:

Hatred hopes to perceive hatred in its object, but what satisfaction can we find in this face? Guileless, affable, serene, the face confronts us. . . . Of the foreign murderers who have stalked the imagination of America, he is perhaps the least fathomable to us, and one wonders if this perplexity can be

traced not just to our ignorance of his goals but to the bewildering benevolence of his face. Where our news media would have us see a devil from the East, a sneering emissary of Islamic fanaticism, we instead meet a gaze both familiar and empathetic.¹⁰

It is difficult for Wasik to see bin Laden as entirely other, yet the searching gaze that addresses the bin Laden picture is based on the idea that, as one scholar has noted, “individuals embody terror or evil in their faces [an idea that] could not help but invoke a paranoid discourse of racialized otherness.”¹¹ It was as if, for a terrorist, he looked a little too familiar. This was not an accident: images of bin Laden’s face follow the standard conventions of Western portraiture. As Bronwen Wilson has argued, modern portraiture is based on a logic of representation, where the image of the face yields insight into the person it depicts, as opposed to earlier physiognomic models of portraiture that cast the person depicted as belonging to a type.¹² Though, in a way, everything is typical in bin Laden’s portrait, its representational effect is to raise questions about the nature of the person behind the picture; its effect is to suggest that, by gazing upon his face, we might gain some insight into who bin Laden is as a person. This effect is amplified by ignorance; as Lawrence has noted: “We have only glimpses of bin Laden’s personality, and much remains mysterious about the man.”¹³

But what of his voice? While, according to Wasik, bin Laden’s face wore the traces of Middle Eastern affluence and Western health care, his voice is indeed more alien to many American listeners. Despite an ever-growing number of Arab-Americans and American Muslims (acknowledging that these are not one in the same group), Arabic is still rarely heard in U.S. media outlets, and skill in the language is rare enough that the U.S. military still has a shortage of Arabic speakers on its payrolls. Partly, this is the result of institutional racism: until September 2001, the U.S. diplomatic corps had tacitly viewed its Arabic speakers as being too close to “the enemy.” In fact, it has a long history of such biases. When the first American combat troops arrived in Vietnam in 1965, the entire army had only five translators available because the diplomatic corps viewed speakers of Asian languages with suspicion in the 1950s and 1960s.¹⁴ Thus bin Laden’s voice confronts American listeners as alien in part because Arabic has been consciously alienated by American institutions.

There are also important differences in the sound of bin Laden’s voice. In listening to the various recordings of bin Laden that are widely available on the Internet, I find his voice slightly higher pitched on tape, even a little nasal or reedy. Bin Laden’s speaking voice is quite different from the classic American macho boom that sounds as if it comes straight from the lungs or diaphragm. But the voice never simply confronts its listeners. As

with any political leader, most Western audiences only have access to bin Laden's voice through audio and audiovisual media—recordings, radio, television, or various streaming media on the World Wide Web.

Here the differences multiply. When George W. Bush gives a speech, it is through a microphone chosen because it captures the pleasing frequencies in his speech. He speaks close to the mic to decrease other ambient sounds. His voice is then converted to an electrical signal that is run through compression, equalization, and other processes that are designed to make it convivial to broadcast. The engineers who make adjustments on this equipment are perfectly aware of audience expectations regarding the “sound” of the president's voice. The result is thick, deep, and sharp, but not too nasal. Bin Laden, in contrast, speaks into tape recorders, video cameras, and cheap microphones—often at a distance. Western engineers are often more concerned about removing noise or otherwise cleaning up his recordings than with making the sound of bin Laden's voice pleasing to Western ears. In other words, the difference between the sound of bin Laden's voice and the voice of an American leader is in part manufactured at the level of engineering. This is a familiar story in studies of technology; what appears as a simple, practical problem to engineers becomes an intensely political problem as their assumptions are carried forth and magnified in other spheres of social practice. In the words of one such study: “After the event, the processes involved in building up technical objects are concealed. The causal links they established are naturalized.”¹⁵ What begins as a simple engineering decision—“let's clear up bin Laden's voice for the audience at home”—resounds politically precisely because nobody is worried about whether or not bin Laden sounds “authoritative” or “presidential,” and thus technical decisions regarding his voice are simultaneously political decisions. The people cleaning up the tapes just want to cut enough of the tape hiss for bin Laden's voice to come through clearly. The result is two different sonic models of authority and of masculinity.

In writing about the Iranian revolution, Annabelle Sreberny-Mohammadi and Ali Mohammadi discuss the many generations through which a recording of the Ayatollah Khomeini's voice would pass before reaching its audience. This passing down through generations was a kind of audible mark of the travels the tape had taken. In other words, a late-generation tape indicates that the ayatollah had been heard by many others and traveled a great distance. Similarly, in a book on music in North India, Peter Manuel has shown the degree to which the sonic artifacts of multiple duplication (such as weird frequency response or audible distortion) have become part of the way audiences in the region like to hear cassette recordings.¹⁶ To put it another way: as a revolutionary leader in his part of the world, bin Laden doesn't need to sound clear and “well-recorded” by U.S. standards

in order to sound affectively charged or powerful. His voice is supposed to bear the marks of the medium more conspicuously. Bin Laden's face may confront American eyes with a "bewildering benevolence"—to use Wasik's language—but his voice (or any representation thereof) is mixed and edited to confront American ears with a bewildering alterity, an alterity shaped by linguistic custom and emphasized by the media through which it is circulated and the conventions through which it is presented.

If different technological circumstances govern the sound of bin Laden's voice, different political stances confront its circulation. While bin Laden's face has at times almost reached ubiquity in the United States since 2001, hearing his voice is still a relatively rare occurrence. This is no accident. While the face travels, the voice is shut in. Bin Laden's voice is regulated, edited, chopped up, translated, ventriloquized, and otherwise modified for American ears. It is the subject of rumor and speculation, the subject of intense auditory scrutiny and careful dissection. Bin Laden's face is easy to find, but listeners who wish to hear bin Laden speak must set out in search of his voice.

Or, to hear the Bush administration tell it, bin Laden's voice sets out in search of ears to hear it, carried forth by tape and transmission. The purported power of bin Laden's voice on the tapes has also led to a variety of governmental measures: shortly after the 11 September 2001 attacks, the Bush administration implored networks not to broadcast bin Laden tapes, and if they did, to only broadcast little snippets and edit out any "flowery rhetoric urging violence against Americans." National security advisor Condoleezza Rice claimed that al-Qaeda could be using broadcasts of bin Laden speeches to "send coded messages to other terrorists" and to "vent propaganda intended to incite hatred and potentially kill more Americans," especially because bin Laden was a "charismatic speaker."¹⁷ Rice's concerns should sound familiar to readers acquainted with U.S. mass communication theory and history. Theories of media once used to analyze media from a distance become, in the case of bin Laden's tapes, tools of mediatic struggle themselves. Rice's invocation of charisma is therefore hardly an innocent or commonsense claim. Rather, it evokes long-standing Western traditions for thinking about the recorded and broadcast voice. Her analysis of the tape has little or nothing to do with the tape itself, but rather with Western European and American traditions of dealing with mediatic speech. Let us consider a few examples.

Since the earliest radio legislation in 1910 and 1912, the government has given the military priority over the airwaves. In World War I, this led to a near shutdown of civilian broadcasting. During World War II, this led to the elimination of call-in shows that were believed to provide a possible medium for the enemy forces to pass along coded messages.¹⁸ Thus, Rice's concern regarding the threat of bin Laden's voice aims to situate

him in a long tradition of American enemies. Her appeal to bin Laden's charismatic power evokes old ideas concerning leaders and crowds—that the crowd will blindly follow the leader, whose charisma will whip them into a kind of frenzied obedience.¹⁹ It also nicely follows the “third person effect,” the belief that media content will affect other people more than it will affect the analysts making the “effects” claim. W. Phillips Davison, in his classic article outlining the idea, shows how politicians, censors, military strategists, and academics all base important decisions on their beliefs about how media content will affect other people differently than it affects themselves.²⁰ My point in rehearsing these theories is not to argue for their truthfulness or even applicability to the situation for our purposes; rather, it is to show that they are all used, in more or less “commonsense” forms, as ways of explaining the possible political effects of the bin Laden tape by people acting in and writing about the political sphere. The bin Laden tape was simply the latest in a long series of platforms to prop up these ideas about the political effects of enemy speech. At the same time, these entirely conventional ideas about mass communication were used to domesticate and “make sense of” the tape, to establish protocols for behavior and responses to it.

But the tape also exists within two very specific traditions having to do with cassette sermons and what Charles Hirschkind calls “Islamic counterpublics.” The first tradition emerges out of a Western stereotype that takes militant Islam as typical of Islamic discourse: “The cassette’s capillary motion, its ability to proliferate beneath the radar of law enforcement, . . . has rendered this media form so useful to the task of building Islamic insurgency. The ominous web that cassette technology weaves—able to ‘flow’ . . . , even across borders of Europe and North America—recalls the hydra-headed images of Al-Qaeda described by Western security agencies, with its loose network of hate-filled conspirators.”²¹ Thus, the tape serves as a double surrogate: bin Laden’s voice stands in for his missing body, while the paths the tape takes are synecdochic for the hidden network of al-Qaeda. In such a scenario, the Bush administration’s attempt to capture the tape, through verifying bin Laden’s voice, and to restrict its movement in American media takes on particular rhetorical significance, as if restricting the movement of al-Qaeda’s discourse were the same thing as restricting the movement of al-Qaeda.

But this must be read against the second tradition of cassette sermons and Islamic counterpublics that Hirschkind identifies (and which, to be clear, is the main subject of his study): cassette sermons are not primarily articulated to “terrorist” activity in Islamic public life. To the contrary:

The vast majority of these tapes do not espouse a militant message, [and] listening to cassette sermons is a valued activity for millions of ordinary

Muslims around the world, men and women who hold regular jobs, study at the university, send their kids to public schools, and worry about the future of their communities. . . . For almost all of those who listen to them, these tapes are not part of a program of radical mobilization but, instead, part of a complex ethical and political project whose scope and importance cannot be contained within the neat figure of the militant or terrorist.²²

Considered from this angle, the bin Laden tape is actually quite exceptional. Though it partakes of Koranic language, it is not meant to be heard in the same way that a typical cassette sermon would be. Indeed, the path through which the tape circulated demonstrates this: it was delivered to al-Jazeera for broadcast and not circulated through the careful copying and hand-to-hand distribution networks that characterize Islamic publics writ large. The difference is important because it is never once mentioned in the press coverage following its surfacing on al-Jazeera. In containing and controlling the speech on the tape, and by calling attention to its status as a tape, the Bush administration and the mainstream press who reported on it were complicit in a standard wartime project of rendering the enemy alien, exotic, and hateful.²³ In place of the plurality of Islamic public practice, we get a particularly distorted example, which is then further distorted, defaced, or (as we will see) recirculated under erasure to fan public fears and concretize an otherwise abstract enemy threat.

This complex ideological context provided the setting for the Bush administration's request for a media "blackout" of bin Laden's recorded voice (if you'll pardon the mixed metaphor), and a whole set of customs emerged regarding the presentation of bin Laden recordings in its wake. If the tapes ever made it to broadcast without an additional layer of discourse attached on top, I can find no record of it happening. Bin Laden tapes always came with baggage: subtitles, illustration, voice-overs, commentary. Part of this has to do with the American culture of monolingualism, and the fact that non-English speakers are very rarely allowed to simply "speak for themselves," in their own languages, on American networks. But bin Laden tapes are also a special case: their fate is not simply reducible to their status as non-English-language speech. Rather, their status as documents of the enemy voice—real or imagined—demands a special treatment. Here, language intersects with other forms of alterity—race, ethnicity, and anti-Arab sentiment all code the speech as something not just other but as something threatening. Though the bin Laden tapes are, in a certain sense, supposed to speak for themselves, they can never be allowed to. The American press decided that they should be presented in public with a discursive veil.

Here, we might note some historical similarity to the case of Gerry Adams, an Irish Republican Army leader who could only appear on the

BBC from 1988 to 1994 with his voice dubbed. Margaret Thatcher's original reason for the voice ban was to "deny terrorists the oxygen of publicity,"²⁴ but broadcasters quickly found that they could circumvent the ban by having an actor speak the lines that Adams would have otherwise said: same (or similar) words, different voice. Adams's case shows that the ban is not uniquely American and indeed raises some similar questions. As Jane Marcus noted in a 1997 *Signs* essay:

What could have been so very dangerous about the sound of a single voice? Why was the essence of Gerry Adams's revolutionary politics located in his voice, not his body? we asked, once the ban had been lifted. Why did the British government let its citizens see him while it silenced his voice? His words were broadcast in someone else's intonation—as if the real danger lay somehow in the fit between voice and face. Are we to assume from this that the British government thinks that the stimulus of violence is aural, not visual?²⁵

But the analogy between Adams and bin Laden is not exact, since bin Laden speaks in Arabic (and not the language of majority as Adams did) and since his words are heavily edited as they are translated by U.S. media outlets.

A bin Laden tape can lead to an explosion of discourse on any number of registers: it can be used to justify an invasion; it can be treated as the cause of a stock market decline; it can serve as an index of Islamic public opinion (as if there were such a thing as a unified Islamic public); it can be a platform for self-described experts to prop up their faux-insights into any number of subjects. In the case of this essay, it is also an important opportunity to reflect on the political epistemology of the recorded voice.

Below I consider the career of one such tape: the four-and-a-half-minute recording provided to al-Jazeera and broadcast on 12 November 2002. The tape appeared as an explosive force in American politics, and it was initially regarded as authentic. Roughly two and a half weeks later, its authenticity was called into serious question. I am going to invert the story a little bit to begin with the question of authentication. My reason is simple: the process of voiceprint identification gives us tremendous insight into the status of bin Laden's recorded voice. If we understand the nature of the uncertainty and the treatments to which the tape are subjected, it will provide a heuristic for reading the "effects" that were reported as if they naturally resulted from the emergence of the tape.

Voiceprinting the Suspect

On 29 November 2002, a group of Swiss researchers at the IDIAP (Institut Dalle Molle d'Intelligence Artificielle Perceptive—a nonprofit semi-

private institute that researches automatic speech, speaker recognition, computer vision, and machine learning) announced that they had serious questions as to whether the 12 November tape could be authenticated. If you understand voiceprinting, the announcement is unremarkable. Authentication of voice recordings made outside laboratories is a relatively inexact science. While voices are relatively unique and distinct, like fingerprints, the technology to measure voices is not nearly as well developed. In considering the recording, one might expect a discussion of Roland Barthes's idea of the grain of the voice: "the 'grain' is the body in the voice as it sings."²⁶ After all, it is the body "behind" the voice that the CIA, politicians, journalists, and casual observers seek. It is tempting to read this as a case of the so-called anxiety of schizophonía—the separation of body and voice that some sound theorists attribute to recording and reproduction technology and claim as a cause of psychological disturbance and pathology.²⁷ Schizophonía is an aural figuration of the long-standing anxiety concerning the absence of bodies when media enter the equation.²⁸ While the concept is clearly not an objective or accurate cultural account of how sound media actually work, schizophonía may, in fact, describe some people's responses to a recorded voice, and indeed any recording of bin Laden is going to raise questions about where his body might be hiding.²⁹ So the anxiety about the relationship between original and copy drives the will-to-verification. If the tape is bin Laden, the reasoning goes, then we can look to it for effects, explanations, and predictions. If the tape is not bin Laden, then it tells us a whole other story. As Eric Rothenbuhler and John Durham Peters put it in their analysis of phonography, a counterfeit raises questions about the technology and skill behind the copy.³⁰ In the case of the bin Laden tapes, falsification would hypothetically also raise questions about motivations to create a fake. Interestingly, I have found almost no coverage of the desire to counterfeit bin Laden's voice in mainstream press coverage of his tapes, even if there has been some speculation regarding the possibility that bin Laden has body doubles.³¹ Even so, there are clearly stakes to the quest to attach bin Laden's body to recordings that purport to be his voice; one might even consider this a doubly fraught case, since it combines generalized anxieties about absent bodies in the mediatic world with the very specific anxiety attached to the absence of bin Laden's body.

Though a great deal of energy was expended on attempting to verify the authenticity of the copy, the really significant events all happen to bin Laden tapes (or whatever they are) in the middle of the process, and not at either endpoint: "original" or "copy." In between the two sounds we call "original" and "copy" lies a vast universe of electrical signals that can be manipulated, formulated, classified, transmogrified, and quantified in the process of transmission, circulation, and analysis.³² In fact, contemporary

forensic voiceprint analysis never gets beyond this middle space because it only compares data generated by one copy to data generated by two sets of other copies. Here's how it works.

When voiceprint experts are asked to verify a voice, they prefer to work with the highest-quality recording possible, and they prefer to compare it to other, previously verified recordings. Already there is a hitch, because when speech analysts talk about “quality” or “realism,” they really mean “definition.” As Michel Chion writes, definition, in recording, is not at all the same thing as capturing the full real presence of a human voice:

In the “natural” world sounds have many high frequencies that so-called hi-fi recordings do capture and reproduce better than they used to. On the other hand, current practice dictates that a sound recording should have more treble than would be heard in the real situation (for example when it's the voice of a person at some distance with back turned). No one complains of nonfidelity from too much definition! This proves that it's definition that counts for sound, and its hyperreal effect, which has little to do with the experience of direct audition.³³

Thus, a high-quality recording is one that conforms to the aesthetic conventions of recording and has a great deal of definition, especially in the vocal frequencies. A proper voice recording may therefore sound considerably different from the speech of a person in the same room as the listener. Voiceprinting is therefore, at its core, a science of comparing media artifacts and not a science of comparing media to life.

For years, voiceprint identification used audiotape and various forms of visual technologies for representing sounds such as spectrographs. Now the process is completely computerized. Voice identification programs measure the elements of the voice as they are distributed across a frequency spectrum. When a voice identification program tries to authenticate a new voice recording, it compares that recording to: (1) a set of features extracted from previously verified recordings of a given speaker (called the “customer model”); and (2) a set of features extracted from a “world model” that corresponds to “anybody else.” Beyond being amusing, the names reveal quite a bit: “customer” implies a client relationship with the institution that voiceprints, which is no coincidence since most voiceprinting is at the voiceprinted person's request and for various kinds of consumer or security purposes; “world model” suggests the program—and the programmers—have a reach much greater than they do and that they can actually have a model for all possible human voices.

Having established the two models, the voiceprinting program then runs numbers to determine probabilities. It essentially “guesses” which model would have been more likely to generate the voice recording that is

being tested.³⁴ I will let IDIAP explain the issues in computerized voice identification:

These systems perform relatively well in well-controlled environments, such as banking and telephony applications, the main focus of researchers working in this area. These systems are based on the collection and modeling of many utterances spoken by numerous people, speaking the targeted language, as well as a few utterances, pronounced in clean environments, from each person whose voiceprint will later have to be identified. In these well-controlled environments, correct verification performance in the range of 95%–98% is often reported. However, when working in uncontrolled environments with degraded quality, and/or when there are insufficient training utterances (which is typically the case in forensic applications), this performance level can drop dramatically, making it impossible to draw conclusions with strong certainty.³⁵

In other words, voiceprint analysis is largely a laboratory-based science, where both original and copy are produced under carefully controlled conditions, to carefully matched specifications, and more attuned to the process of beginning with a desired goal and then matching voices to the task. If they record the voices beforehand, they already have their answers in advance. If the goal is to produce voice-activated locks or to test the “skill” of computers, then this system works well. If the goal is to identify an unknown voice, it is more of a problem. In forensic applications, voiceprint identification is much less reliable because the “training utterances” (which train machinery as well as ears) are not produced with the goal of reproduction and later verification in mind. Voiceprinting is thus something of a closed loop, though it opens just enough to raise the possibility of verifying a voice like bin Laden’s.

In voiceprint analysis, and especially in forensic audio, the voice exists far outside the speaking subject, and indeed, the content of the speech is almost entirely irrelevant. The recording of the voice is the artifact, and the voice’s characteristics as a measurable sound are what matters. The IDIAP scientists could have run the sound of a flugelhorn into their voiceprint analysis program and it would not have bothered to tell them that it is not a voice. The program would have simply indicated that it did not match bin Laden’s voice. It is the sonic characteristics of the voice and their relationship to statistical aggregates that rule the day in voiceprint analysis. How far we have come from speech as the art of persuasion! In the world of forensic audio, the voice is artifact, trace, and remnant. Speech as a meaningful human act is secondary to speech as a technical operation of body, breath, air, microphone, recording medium, and software algorithm working together in concert. The speaker does not persuade the audience; rather, the computer measures the voice. In the voiceprint, speech is purely

an exterior form. It can never be linked back directly to a subject, but only to its model, its shadowy digital double. Jacques Derrida's lament that the voice leads not to an interior self but to "the eye and the world" is a fine description of the predicaments facing forensic audio.³⁶

For IDIAP's experiment with the November 2002 tape, they followed standard scientific procedure. They gathered thirty "authenticated" recordings of bin Laden (we are not told how the prior recordings were authenticated, but let us assume for the purposes of the test that it is possible to know for certain that bin Laden made them), which they then split into two sets, fifteen to "train" the model and fifteen to test the model. They also brought in fourteen other recordings, "authenticated" as the speech of other Arabic speakers, to test the model for false positives. The "quality" (i.e., the definition) of recordings ranged from high to low. The program correctly classified twenty-eight of twenty-nine recordings. The IDIAP writers are very clear that their sample was too limited and they couldn't know for sure whether their model worked. But when they ran the 12 November recording through their model, the program did not identify that tape as bearing the voice of bin Laden. Their conclusion is unequivocal:

While this study does not permit us to draw any definite (statistically significant) conclusions, it nonetheless shows that there is serious room for doubt, and that it is also difficult to agree with some U.S. officials saying that it is 100% sure that it is bin Laden. When addressing a problem with a scientific perspective (as opposed to a political approach), one has to be ready to also accept the uncertainty of the results. Even if the confidence of these results can be boosted . . . it will never be possible to authenticate the latest bin Laden tape with 100% assurance.³⁷

At every turn in the voiceprint authentication of a bin Laden tape, uncertainty wells up through the gaps. Voiceprint analysis compares (1) copies-of-copies to (2) copies, in order to determine if the voice on (1) is the same as on (2), which will then, in turn, let us know that, if (2) has already been "validated," (1) is also an authentic copy. Is your head spinning yet? Gilles Deleuze, in his discussion of Plato and the simulacrum, puts it well when he writes that ultimately these games are about delimiting a field of contenders (in this case, recordings), elevating some of those contenders to the status of "authentic," and then using them as the basis to judge others.³⁸ That is exactly the mechanism behind voiceprinting.

For all the trappings of science and technology, we are no more certain of bin Laden's voice than if we'd instead chosen humans instead of a computer for our expert listeners. After all, one can also listen for elements of style. Rightly or wrongly, speech—especially the sound of the speaking voice—is often held to be one of the deepest and richest expressions of

a person's unique subjectivity.³⁹ A knowledgeable listener, one who was intimately familiar with bin Laden's turns of phrase, preferred metaphors, diction, and pacing, would bring an entirely different set of questions to the recording. The driving questions behind such an analysis would be what bin Laden could say, what he would be likely to say. The question for a speech-based analysis of a bin Laden tape would be: "Does that sound like bin Laden?" It would be based on a theory of the voice connected to the interior of the subject. This approach characterizes Lawrence's edited collection of bin Laden speeches, which considers each as part of a speaker's oeuvre, and notes stylistic, rhetorical, and syntactic dimensions of bin Laden's utterances. Very little of Lawrence's contribution to the volume deals with verification; instead, he prefers to consider what the content of bin Laden's speeches might tell us about the man and his platform.⁴⁰ While the computer treats the recording as an artifact that creates a mathematical spread, a human—or at least a humanist—listener would treat the bin Laden tape as a document made by a person and measure it against their knowledge of bin Laden as a person and as a speaker.

For all of its connections to common sense, for all of its connections to the humanist dream of knowing one another, of understanding one another, actually listening to the bin Laden tapes turns out to be strangely unsuitable to the geopolitical world in which they operate. Like all world leaders, bin Laden most often comes to us through the media; it is precisely the mediatic dimensions of bin Laden's voice that are the objects of political and epistemological struggle. Though politicians and organizations act as if a bin Laden tape will affect an audience, the audience is almost entirely beside the point. The tape functions less as a message addressed to an audience than a platform or catalyst for action, for activity. Indeed, as we will see in a moment, the difficulty of verifying the tape, of connecting it to a sentient, intending, and acting subject is the root of its meaning and its power—even if we believe that the tape has been, in fact, authenticated.

Voiceprint analysis is a long way from Barthes's "body in the voice"; it is a game where the voice leaves traces and where the traces of the voice are, in turn, induced to leave more traces, which can then be compared to one another. Far from letting the "recording speak for itself," voiceprint analysis represents a kind of synesthetic transference, where through a careful dissection of the recording, some truth about its totality might be reached. The IDIAP writers were uncomfortable with this uncertainty. Meanwhile, the Bush administration exploited it.

Cassette Politics in the "War on Terror"

Countless accounts of voice recordings treat them as if they "capture" the voice. As we will see, this is a common figure in the writings about

the tape. The story of the 12 November recording is a story of attempts at capture. While the U.S. military claimed to be working on capturing bin Laden, all the players who approach the 12 November recording—perhaps metonymically—aim to capture it: this is true for the Bush administration, the CIA, journalists, commentators, al-Jazeera, U.S. networks, the IDIAP, an anonymous courier in Pakistan, me, and perhaps bin Laden and al-Qaeda as well. From the moment it surfaced, the tape posed pressing questions of classification and belonging: what does it mean, what will it do, where does it belong, and who gets to decide?

The news stories began on 13 November 2002. Running a lead that claimed U.S. officials believed the voice on the tape to be bin Laden's, the *Los Angeles Times* warned of dire implications:

[The tape arrived] at a troubling time as the U.S. spearheads a coalition gearing up for war with Iraq and amid growing indications that Al Qaeda is regrouping and planning more attacks in far-flung corners of the world. The tape rang alarm bells at the White House, CIA, Pentagon, and elsewhere in Washington, officials said, because bin Laden has been known to make such public pronouncements just before a terrorist strike, as was the case before Al Qaeda truck bombs killed 224 people at two U.S. embassies in Africa in 1998.⁴¹

In other words, the tape marked a state of heightened emergency: it was a clue to possible futures and a guide for action. The tape was, in effect, a military and temporal document: it marked time. If attacks happen after tapes appear, then the tape functioned like an omen of things to come.

The *New York Times* offered a more measured evaluation, in an article titled “New Recording May Be Threat from bin Laden”:

It is possible that the tape is another fake, officials said, but their reaction suggested that they were taking seriously the possibility that it was genuine. If the voice does prove to be that of Mr. Bin Laden, this would provide the first proof that he is alive in almost a year. . . . The sudden re-emergence of Mr. Bin Laden (or someone who sounds like him) at a time when the United States is threatening war with Iraq complicates American policy.⁴²

The *Times* article cast the tape as an actor in its own right whether or not it was authentic. On its own, the tape was said to “complicate” policy. Subsequent days saw press coverage asserting the tape's effects as the authentication efforts moved to the background. On 13 November, George Bush told reporters that regardless of whether the tape was authentic, it “put the world on notice yet again that we need to take these messages very seriously, and we will.” Indeed, the administration was “bracing for the possibility that the tape might spur further terrorist attacks.”⁴³ Democrats

shot back, two days later, that the tape evidenced that the Bush administration had made little progress in the so-called war on terror.⁴⁴ In all of these cases, the tape was a token that tied together events: it spoke to future horrors and past failures; it was an occasion for muscular language and muscular postures.

Even economic effects were attributed to the tape: financial writers claimed a relatively volatile stock market was caused by the surfacing and authentication of the tape.⁴⁵ Of course, investor behavior is an intensely conflicted and contradictory field—on a good or bad day, it is difficult to attribute the actual causes of market trends. But that the tape appeared to journalists as a possible way to explain the behavior of the market suggests the degree to which a claimant to bin Laden's voice and message could have intense effects in several domains of American society.

Although the Bush administration did not officially declare the tape to be authentic until 19 November, the speech and bin Laden's voice were immediately picked up as objects of analysis, as evidence for a variety of claims.⁴⁶ Reporters sought to trace the elusive origins of the tape in order to gain some insight into the relationship between bin Laden's network and other organizations. A *Globe and Mail* columnist argued that the tape provided evidence that bin Laden was ill—perhaps from kidney failure or from an injury suffered when the United States bombed the Tora Bora caves in Afghanistan. Either way, the article quotes an official saying bin Laden sounded “tired and aged”—the enemy leader's body giving over to fatigue from international conflict. Perhaps, the author speculates, illness “may be a reason why audio was used rather than video.”⁴⁷ Channeling Claude Lefort, Michael Warner writes that we may have entered a new phase in the “history of the body of publicity”: whereas liberal democracy “decorporalized” the body politic—moving from a sovereign to an abstract, metaphorical sense of the polity, Lefort and Warner both believe that contemporary Western political culture has manifested a turn back toward elevating the bodies of leaders as representative of the body politics they are supposed to represent.⁴⁸ In using the sound of bin Laden's voice to inquire after his health, our columnist partakes of some wishful thinking: if bin Laden lacks bodily strength, then perhaps his public also lacks bodily strength.

Another writer opined that the tape was evidence that al-Qaeda has “rebranded” itself, that the “war of terrorists has entered a new phase,” where al-Qaeda has moved from a “real” to a “virtual” organization that releases audio- and videotapes while its members communicate through untraceable means such as Internet cafes. All of these accounts are interesting because they do not deal in any way with what the speaker on the tape actually said. Instead, they analyze bin Laden's voice as a trace of his body registered on the tape. So the tape itself was the message, and it was

to be decoded by searching above, beneath, and around the speech for evidence of meaning. The tape was a marker for the health of the leader and the health of the movement.

When writers did look to the content of the tape, it was again to search for clues into the status of bin Laden and the nature or absence of an imminent threat. Robert Fisk, writing for the *Independent*, also read much detail into the tape: “When he was recorded, bin Laden was not talking into a tape recorder. He was talking into a telephone.” Fisk wrote that the tape conclusively showed that bin Laden was healthy and in command: “Silence at this moment in Middle East history would have been inexcusable in bin Laden’s eyes.” Indeed, the timeliness of the tape was used as evidence of its authenticity:

[Bin Laden] energetically listed the blows struck at Western powers since his presumed “death.” The bombings of French submarine technicians in Karachi, the synagogue in Tunisia, Bali, the Chechen theatre siege in Moscow, even the killing of the U.S. diplomat in Jordan. Yes, he is saying, I know about all these things. He is saying he approves. He is telling us he is still here. Arabs may deplore this violence, but few will not feel some pull of emotions. Amid Israel’s brutality toward Palestinians and America’s threats towards Iraq, at least one Arab is prepared to hit back.⁴⁹

In other words, the fact that the tape listed then-recent acts of violence and commented upon them demonstrated that bin Laden was alive, aware, engaged, and acting politically. (Indeed, the readings of the tape appear to be within very clear nationalistic and political frames: while American and British sources fretted about the tape, Canadian sources performed their own reading. According to the CBC, the new bin Laden tape “contained no imminent threat” to Canadians.⁵⁰)

When, at the end of November, stories started to appear that questioned the authenticity of the bin Laden tape, its political play had already ended. It had already propped up analyses of bin Laden’s condition, the state of the “war on terror,” the Bush administration’s continued saber-rattling and erosion of civil liberties. The bin Laden tape had its day in the sun and made the difference it was going to make, even if its verifiability was to be subsequently called into question. As they were reported in *Wired News*, the *Guardian*, and other sources, the analyses of the tape appeared as a kind of political autopsy. What mattered throughout the preceding weeks was not the verification of the tape as bin Laden’s voice, but the possibility that it could be verified. The failure to authenticate the tape did not matter because it demonstrated to the press, the U.S. government, and any others who cared to listen that the possibility for verifying the tape existed. It could have been real. We could have known. That was enough for it to have its effects and to teach its lessons.

Conclusion: Pattern Recognition

It is tempting to conclude by making epochal claims about changes in the cultural status of the voice, to claim that the voice has moved from the expression of the “inside” of an intending, acting political subject who persuades an audience, to a trace, an artifact that operates in the world of mediated politics. But I must temper that desire and so should you. The voice-as-exteriority formation is at least two hundred years old. Both the fields of acoustics and medicine treated the voice as something separate from an intending, speaking subject since the eighteenth century. Nineteenth-century innovations in sound technologies and the education of the deaf that led to telephony, radio, and sound recording followed in this vein.⁵¹

Thus, my conclusion is not about the newness of the form, but rather the mode of analysis, the way we treat recorded speech in a media-saturated political culture. One thing that is painfully clear in the news clippings that appeared between 12 and 29 November 2002 is the way in which writers sought to attach bin Laden’s voice back to his body. But most of them did not really care what he said. They listened not to his speech but to his voice—for traces of things that lay beneath the words, for evidence of the condition of his body. Sound theorists have traditionally seen this story developed as an example of the anxiety that arises from separation of original and copy. But the anxiety here is not about the medium at all. All the commentators who take the tape to be bin Laden write as if they are so comfortable with the medium of recording that they do not pause to question it. The anxiety is about terrorism as an external threat, about attacks on the nation. As the enemy leader, as the enemy voice, bin Laden is the icon of that unknowable otherness, of threat personified, of political and personal danger. All this is to say that there has to be room in the analysis of political speech for both speech and voice, and neither form arrives at our ears in and of themselves (despite the fact that speech is often still conceived of as something that happens or has effects “in and of itself”). They are always part of larger networks of action, technology, power, and meaning. In contemporary geopolitics, and in American politics, it is safe to say that speech in itself does not exist (if it ever did—*pace* Derrida).

Whether conducted by the CIA or the IDIAP, voiceprint analysis depends on the identification and recognition of patterns and details. This essay followed a similar tack: I have identified a political and discursive pattern that applies to recordings of bin Laden’s voice. Though discussions of these tapes point to authentication as a critical step in the political process they undergo, I have argued that the uncertainty surrounding the tapes, and not the fact of authentication, is actually the central factor for understanding their public and political significance. The tape that surfaced on

11 February 2003, for instance, was used as evidence for ties between Iraq and al-Qaeda, and subsequently as a justification for the Bush administration's invasion of Iraq.⁵² It was the appearance in politics, the presentation of mere possibility, that counted when the tape was up for discussion. The ambiguity of the tape's origins helped propel it into Bush administration speeches and dossiers of "evidence" for the crimes of the Hussein regime against the United States. Once the tape served its purposes, it could be discredited or at least rendered discreditable. It is, effectively, in retirement, awaiting successors. And the successors have come.

At least since Hitler, American politics has produced a series of enduring and iconic enemies. Bin Laden is only one man in a long parade. But while Hitler will be remembered for his voice, bin Laden is more likely to be remembered for his recordings than for his voice. Through following the travels of recordings that contend to contain his voice, we learn a little more about the status of the voice in politics. Reactions to the enemy voice speak volumes about the vast moral distance between the so-called responses to attacks on American soil and bin Laden's body or message. In this media world, the world through which most Americans experience geopolitics, the American military machine battles with icons nourished by media documents and brought forth from frightened imaginations. In the end, it is all about imagination: we only need to believe in the possibility of the bin Laden tapes and they will have their effects.

Notes

Many thanks to Carrie Rentschler, Brian Larkin, and audiences in Iowa City and Montreal for their comments on this paper. Special thanks to my research assistants, Emily Raine and Jeremy Morris, and to Saalem Humayun, for their contributions to this paper.

1. It is worth noting that Ramadan is an unlikely subject for a bin Laden speech. As a time for fasting, prayer, and contemplation, it seems doubtful that he would single it out for a time to attack Americans.

2. Bruce Lawrence, introduction to *Messages to the World: The Statements of Osama bin Laden*, ed. Bruce Lawrence, trans. James Howarth (London: Verso, 2005), xi.

3. Bin Laden, *Messages to the World*, 173.

4. BBC, "Bin Laden in His Own Words," BBC Online, 15 April 2004, news.bbc.co.uk/go/pr/fr/-/2/hi/south_asia/2827659.stm.

5. Gail Brewer-Giorgio, *Is Elvis Alive?* (New York: Tudor, 1988).

6. A few words on method are warranted here. The Elvis/bin Laden similarity was the original kernel of the paper because I was struck by the similar talk that surrounded their recordings. I began collecting press coverage of bin Laden's tapes in 2003 and gave my first talk on the subject in 2004. In subsequent revisions of the paper, the quantity of primary source material has declined, as it is quite repetitive. For simplicity's sake, I focused on the November 2002 tape because it was used in

the run-up to the second Iraq war, because it was the subject of some controversy, and because it was in many ways typical of tapes that appeared before and since. However, because drafts and revisions of the paper have essentially spanned the second Bush administration (indeed, this essay will likely appear in print only shortly before the next U.S. president assumes the office, though I suspect that the next administration will not be so different in how it deals with bin Laden tapes, whatever its foreign policy), there is a bit of a mix between present and past tense in the wording. I have decided to allow some of the present-past tense conflicts to remain in the writing, since I would otherwise be writing in a past tense to refer to things that are not yet over (which feels strange to do), even though they may well be in the past by the time you read this endnote. Such is the dilemma of cultural studies: the pace of writing and publishing is often slow enough that critiques of present conditions only appear once the present has receded into the past. Though a variety of alternatives to traditional scholarly outlets have appeared in recent years, the problem is constitutional and not simply technological, since it is more an issue of scholarly production than circulation.

7. Lawrence, introduction to *Messages to the World*.

8. Binoy Kampmark, "The Spectre of bin Laden in the Age of Terrorism," *CTheory*, 14 November 2002, www.ctheory.net/articles.aspx?id=355.

9. Ibid.

10. Bill Wasik, "American Lucifer: The Tormenting Face of Osama bin Laden," *Harper's*, December 2001, 52.

11. Kelly Gates, "Technologies of Identity and the Identity of Technology," in *Race, Identity, and Representation in Education*, ed. Cameron McCarthy et al. (New York: Routledge, 2005), 66.

12. Bronwen Wilson, "The Early Modern Face: Representation and Resemblance" (paper presented at the Annual Meeting of the Society for Cinema Studies, Chicago, 10 March 2007).

13. Lawrence, introduction to *Messages to the World*, xv.

14. David Ignatius, "Purge of 'Arabists' Leaves U.S. Military Vulnerable," *Ottawa Citizen*, 13 July 2003.

15. Madeleine Akrich, "The De-Scriptio of Technical Objects," in *Shaping Technology, Building Society: Studies in Sociotechnical Change*, ed. Wiebe Bijker and J. Law (Cambridge, MA: MIT Press, 1992).

16. Annabelle Sreberny-Mohammed and Ali Mohammedi, *Small Media, Big Revolution: Communication, Culture, and the Iranian Revolution* (Minneapolis: University of Minnesota Press, 1994); Peter Manuel, *Cassette Culture: Music and Technology in North India* (Chicago: University of Chicago Press, 1993).

17. Bill Carter and Felicity Barringer, "Networks Agree to U.S. Request to Edit Future bin Laden Tapes," *New York Times*, 11 October 2001. Brian Larkin notes in his comments to me that charisma has long been debated in Islamic studies. Charisma is an important source of authority for Sufi sheikhs, but bin Laden is part of the Wahhabi movement that has relentlessly attacked Sufism. Wahhabis have a more rationalist, legalistic approach to authority that deemphasizes the body and presence in favor of reference (and therefore supposedly deemphasizes charisma). Since bin Laden is functioning in a media environment not of his (or Wahhabi) making, there is an interesting conflict here to be noted between the religious and political ideology espoused by bin Laden and his actual function as a mediatic being. Or there may not be a conflict at all: Condoleezza Rice and Western journalists can interpret the message in one way, while bin Laden supporters can interpret it in another fashion.

18. Erik Barnouw, *A Tower in Babel* (New York: American Philological Association, 1967).
19. Theodor Adorno, *The Authoritarian Personality* (New York: Harper, 1950); Elias Canetti, *Crowds and Power*, trans. Carol Stewart (New York: Viking, 1960).
20. W. Phillips Davison, "The Third Person Effect in Communication," *Public Opinion Quarterly* 47 (1983): 1–15.
21. Charles Hirschkind, *The Ethical Soundscape: Cassette Sermons and Islamic Counterpublics* (New York: Columbia University Press, 2006), 4.
22. Ibid.
23. To anticipate an objection: certainly the mainstream reporters and commentators did not know much about how taped sermons are actually used in Islamic counterpublics, and so may have been operating under some erroneous assumptions. But that is precisely the point: they did not see it as their job to find out.
24. Quoted in Barry James, "In Britain, Adams Remains Voiceless," *International Herald Tribune*, 5 February 1994, http://www.iht.com/articles/1994/02/05/ulster_3.php.
25. Jane Marcus, "Working Lips, Breaking Hearts: Class Acts in American Feminism," *Signs: A Journal of Women in Culture and Society* 22 (1997): 715.
26. Roland Barthes, *Image-Music-Text*, trans. Stephen Heath (New York: Hill and Wang, 1977), 188.
27. R. Murray Schafer, *The Soundscape: Our Sonic Environment and the Tuning of the World* (Rochester, VT: Destiny, 1994); Barry Truax, *Acoustic Communication* (Norwood, NJ: Ablex, 1984).
28. Jeffrey Sconce, *Haunted Media: Electronic Presence from Telegraphy to Television* (Durham, NC: Duke University Press, 2000).
29. Thanks to Jayson Harsin and Randolph Jordan who at different times have pointed this out to me.
30. Erik Rothenbuhler and John Durham Peters, "Defining Phonography: An Experiment in Theory," *Musical Quarterly* 81 (1997): 242–64.
31. "Gen. Wesley Clark's Analysis of Current Afghanistan Situation," *American Morning with Paula Zahn*, CNN, 28 November 2001; Gawain Charlton-Perrin, "Are You Ready to Dance on Osama's Grave?" Salon.com, 14 December 2001, archive.salon.com/mwt/feature/2001/12/14/death_react/index.html.
32. Jonathan Sterne, *The Audible Past: Cultural Origins of Sound Reproduction* (Durham, NC: Duke University Press, 2003).
33. Michel Chion, *Audio-Vision*, trans. Claudia Gorbman (New York: Columbia University Press, 1994), 98–99.
34. IDIAP, "IDIAP Analysis of the Latest Bin Laden Tape," IDIAP report on the Institute's Web site, 1 December 2002, www.idiap.ch/pages/press/bin-laden-eval.pdf.
35. Ibid.
36. Jacques Derrida, *Speech and Phenomena and Other Essays on Husserl's Theory of Signs*, trans. David B. Allison (Chicago: Northwestern University Press, 1973).
37. IDIAP, "IDIAP Analysis."
38. Gilles Deleuze, *The Logic of Sense*, trans. Mark Lester and Charles Stivale (New York: Columbia University Press, 1990), 253–65.
39. Barthes, *Image-Music-Text*.
40. Lawrence, introduction to *Messages to the World*.
41. Josh Meyer and Greg Miller, "Bin Laden 'Could Be' on Tape," *Los Angeles Times*, 13 November 2002.

42. James Risen and Neil MacFarquhar, "New Recording May Be Threat from bin Laden," *New York Times*, 13 November 2002.
43. James Risen and Judith Miller, "As New Tape Is Evaluated, Bush Calls Qaeda Threat Real," *New York Times*, 14 November 2002.
44. David Johnston and Eric Lichtblau, "Little Headway in Terror War, Democrats Say," *New York Times*, 15 November 2002.
45. "Bin Laden and Iraq Worries Weigh Heavily on Investors," *New York Times*, 14 November 2002; Paul Shread, "Bin Laden Tape Undercuts Rally," *The Internet Stock Report*, 12 November 2002, www.internetnews.com/bus-news/article.php/1499421.
46. James Risen, "Bin Laden on Tape," *New York Times*, 24 November 2002.
47. Doug Saunders, "What the Tape Reveals about bin Laden," *Globe and Mail*, 14 November 2002.
48. Michael Warner, "The Mass Public and the Mass Subject," in *Habermas and the Public Sphere*, ed. Craig J. Calhoun (Cambridge, MA: MIT Press, 1992), 387–89.
49. Robert Fisk, "Bin Laden Is Alive. There Can Be No Doubt about It. But the Questions Remain: Where on Earth Is He, and Why Has He Resurfaced Now?" *Independent Online*, 14 November 2002, www.independent.co.uk/story.jsp?story=351901.
50. CBC, "No Imminent Threat Contained in bin Laden Message," *CBC Online*, 14 November 2002, cbc.ca/stories/2002/11/13/osamatape021113.
51. Sterne, *Audible Past*, 31–85.
52. CNN, "U.S. Intelligence Chief to Testify on Threats," *CNN Online*, cnn.com (accessed 12 February 2003).

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