

Gathering Audio

Tips and Tricks from the MediaStorm Workflow

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Part 1: Audio and Photojournalism

Introduction by Brian Storm

March 1, 2005 -- Like most professions, photojournalism has undergone a sea change as a result of the digital revolution. Storytelling opportunities continue to evolve via constant technological innovations and an ever-expanding media universe.

Given the current landscape, it's clear to me that next-generation photojournalists will add some new capabilities to their toolset. One of the most important is the process of gathering audio and combining sound with their still images to create a cinematic package.

Adding audio to the reporting process isn't always possible and it's not something that every photojournalist can or should do, but for those who choose to add this skill they will gain both journalistic and financial benefits.

The most passionate and creative visual journalists I know aspire to create in-depth, meaningful work that will help educate people, and hopefully affect change in the world. The biggest hurdle in this process is almost always securing the financial support necessary to complete these types of projects. Adding audio to the reporting process is one way to overcome that obstacle. My basic premise runs like this:

- In-depth journalism is critical to an informed society
- The best photojournalists invest energy in long-form, personal projects
- Personal projects require significant time and financial investment
- Gathering for multiple distribution outlets diversifies and expands audience reach
- Licensing to multiple outlets improves economic opportunities of long-form coverage

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The Benefits of Gathering Audio

Gathering ambient sound and interviewing the subject of a story are the perfect complements to a documentary photograph or essay.

Consider how a well-produced National Public Radio report paints a vivid picture of characters and their surroundings, transporting the listener into the scene and providing an evocative visual context in a style complementary to slice-of-life photojournalism.

How many times has a subject shared a story or provided a detail about his or her life while you were photographing that you remembered during the picture editing process? Wouldn't it be powerful if you could share that experience with your readers as well?

Gathering audio has several benefits:

- Audio interviews give the subject a voice, which complements the photojournalist's taking of a photograph.
- The act of interviewing can lead a photojournalist to important picture opportunities as they learn more about the subject.
- Regardless of whether the audio is published, the interview process will add extensive detail to captions or even lead to a full text story, which increases the chance of getting published.
- Detailed captions are the key to syndication in what is now an all-digital, metadata-driven search universe. Clients aren't searching on pixels they are searching on the text associated with a media asset.
- Audio can help communicate information that may not be communicated as well via images or text. For example, emotion or humor that is heard in a person's voice through word choice, pauses or breaks in their voice, or music to create a mood, or ambient sound that transports you to a location.
- Audio provides the all-important narrative spine necessary for linear media productions in broadcast and on the Web.

The Fourth Effect of Multimedia

The still image elicits a visceral response oblivious to language barriers but influenced by personal interpretation based on the viewer's cultural background.

Text captions are great for the basic who, what, and where of an image. A well-written text caption should teach the reader something new about the picture and make them want to look again at the image with a new understanding of the context.

The image and caption should work together to create a third effect where one plus one equals three.

The addition of audio should then take the picture and the text caption to yet another level, the fourth effect of multimedia, where the image, text and audio work together to create an experience that none could produce on their own.

Tapping Multiple Markets

The tools for combining audio narratives with photography exist, but what's the financial model? What are the outlets for this type of work?

The key is to not abandon traditional outlets like the lucrative licensing opportunities in the print world, but rather gather for the most demanding of presentations, which in my mind is on the Web.

In postproduction you can then deconstruct a new media package (which requires sophisticated text, audio, video and stills) to create the most usable product possible for each of the traditional media. Print is still the most important paying outlet with magazines, newspapers and books consuming still images at a voracious pace.

In addition to the primary outlets for photojournalism, the gathering of audio adds a narrative spine to a still photography project and creates an arc of distribution opportunities including:

- **Web:** Related audio clips and narrative sequences.
- **Broadcast:** Ken Burns style cinematic movies.
- **Radio:** Audio reports with first-hand accounts.

There are emerging opportunities for still image and audio packages, which include:

- **Blogs:** Independent sites are blossoming, and new advertising models are evolving to support them.
- **DVD:** Educational materials or self-published releases.
Netflix is extending the niche DVD opportunity at a rapid pace.
- **Exhibits:** Interactive picture and audio galleries.
- **Podcasting:** Legalized pirate radio will do for audio (and soon video) what blogs have done for writing.
- **Wireless:** Cell phones are an important new platform as a result of an emerging 3G network, allowing both picture and sound capability.
- **Portable Media Players:** With the success of the video iPod and Sony's PSP it won't be long before independent storytellers tap these new outlets.
- **Film:** Independent films are coming on strong in the marketplace. Imagine what will happen when the iTunes for film hits the mainstream. Just as small, non-record label bands have a place in the global marketplace, so too will independent filmmakers.

Existing Examples

Some of the top photojournalists working today have expanded their storytelling capabilities to include audio reporting and an eye towards publication in multiple media. Their work is capturing acclaim around the world in a time when attention spans are running short.

These are photojournalists who are focused on leveraging the various outlets available today from the very start of the storytelling process. They use state-of-the-art tools and innovative reporting techniques, they invest the time to go in-depth and they become authoritative voices on the stories they are covering.

Quality is their focus as they aspire to create projects that will stand the test of time and will have long-term syndication value.

- Click the "Play" button to see what I call a "sequence" in Kari Rene Hall's Hope at Heartbreak Motel project: <http://msnbc.com/modules/ps/henry/splash.asp>.
- A great example of a cinematic narrative can be found in Aging in America by Ed Kashi and Julie Winokur: <http://aging.msnbc.com>.

Why Not Just Shoot Video?

First, it's important to play to your strengths. The assumption here is that you are a still photographer interested in adding to your skill set and broadening your distribution opportunities.

I do believe in the linear power of video storytelling, but I also believe in the power of the still image. Combining audio with stills to make video can bring the best of both worlds together.

As a still photographer you already have strong visuals, you just don't have the narrative spine (the audio) which will allow you to make a video package. And, you are more than likely already shooting sequences in which the action moves through a composition.

It's important to note that thing that makes great video is really strong audio. If you learn the basics of linear storytelling by recording audio only first you can make a more seamless transition to video later.

From a financial perspective, if you shoot video instead of stills, you negate the entire print market in your distribution because the quality of a video grab simply isn't high enough resolution for print. Most still photojournalists can't make that financial leap.

I also believe that process of interviewing a subject with a microphone and looking them squarely in the eye will lead to more intimate responses. Pointing a video camera at them and asking questions from behind that camera isn't quite as intimate.

With that said, if you can shoot a headshot interview with a video camera on a tripod and then shoot all your daily life images as stills you can have the best of both worlds.

I do see a future where there will be one camera with enough resolution for still grabs to be published in print, but that camera is not here yet. Building on the skills you already have as a sophisticated still image maker who also masters the concepts of great radio pieces will set you up to become a great video storyteller when and if that migration makes sense for you.

Conclusion

I envision a day when a photojournalist spends much more time on far fewer stories, either working alone or with a team, focused on gathering materials for a story that will be published across the spectrum of available media outlets.

The “premiere” of a story will remain critical, and in the best case scenario will launch simultaneously in print, broadcast and new media. This type of media blitz will journalistically affect the largest possible audience and the multiple licensing opportunities will make the economics of long-form coverage work.

Investing in an audio recorder and a microphone is probably the most important thing a photojournalist can do to get into the new media game. Learning new skills is critical to keeping pace with the evolution of storytelling.

These new skills will take time to master, but the upside in terms of improving the quality of your journalism and expanding your distribution outlets can be both journalistically and financially rewarding.

It's a revolutionary time to be practicing the craft of journalism. On the one hand we see major media conglomerates seemingly focused purely on profit, downsizing every possible ounce and in the process homogenizing storytelling to the lowest Common denominator. On the other hand there's an explosion of self-publishing on the Web with niche viewpoints empowered to share their perspective with easier to use tools and, without question, the ultimate global distribution outlet at their disposal.

Given the business-focused journalism at mainstream media and the wild frontier of independent voices in new media, gathering sound and taking control of your story can unlock a world of new possibilities for the next-generation visual storyteller.

› Part 2: A Practical Guide to Audio Tools and Techniques

Part 2: A Practical Guide

This document was created in 1993 and has evolved numerous times over the years. It represents thinking from many people I've met along the way, too numerous to list them all, but I will provide attribution where appropriate.

A major contributor to the rest of this document, to the way I've thought about audio, and to the way many photojournalists think about audio today is a direct result of the work done by MSNBC.com multimedia producer Jim Seida.

Jim wrote a huge piece of this document in November of 2002 for a training session we did together first in Seattle at the Photo Center Northwest and then in Chicago for the National Press Photographers Annual Convention.

Jim can be reached at jim.seida@msnbc.com, and he'd love to hear from you.

And take a look at the work that Jim and freelancer John Brecher created for the 2002 Olympic Torch Relay. They spent 65 days on the road and produced a landmark piece of Web journalism. Look for and click the "Play" button to see the sequences they created at: <http://www.msnbc.msn.com/id/4401756>.

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Recording Interviews

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Why should photojournalists gather audio?

So, what's this all about really? It does seem to fly in the face of what a still photojournalist does in their day-to-day routine. As documentary photographers we are encouraged to be a fly on the wall. We hang in the background and try to be invisible so that we can capture the subtle events in life. We adopt a "don't look at me, don't talk to me" attitude. In doing so, we can make some great pictures, but are we really capturing the complete story?

Try it

Take the time to sit down with someone you've photographed and speak with them. This can be scary. It's even scarier when you're recording the conversation, but the end result will be the person in your pictures telling their own story, in their own voice.

This isn't easy. It takes time. It takes new equipment and new skills. It takes the courage to break out of your routine as a photographer and try something new. Getting a photographer to put the camera down is like talking a dog off a meat truck, but the benefits of taking this approach can be incredible to both to your journalism and to your economic success.

Gathering audio to compliment your pictures

Without question, gathering audio interviews and natural sound from an event will make you a much better journalist. You will learn more about your subject. You will gather detailed information for your story and your captions, and you will have a product that is more marketable across many more outlets.

Sound brings pictures to life in a way that captions alone can't accomplish. Pictures allow you to see what you'd otherwise just be listening to in an audio-only piece. The marriage of pictures and sound offers the viewer a truly enveloping experience. It adds realism, texture and depth to your stories and it lets the people in your pictures speak for themselves.

Audio also increases your chances of being published, as your story will be ready-made for a variety of mediums.

Think about how your sound and pictures are going to work together. You want your sound to compliment and carry your pictures, and you want your pictures to do the same for your sound.

The beauty of using the two together is that one can fill in the holes that the other would have if used only by itself. The end result is that the finished story is stronger than it would be if it was used singularly.

How do captions and audio work together?

Here is an excerpt from an email written by Meredith Birkett, Special Projects Multi-media Producer at MSNBC.com, about caption writing and audio and how they work together:

Text captions are useful for the basic information related to an image. A reader should be able to see the picture and read the caption and take away all of the important information about the image and continue the thread of the story without listening to the audio.

The audio is supplemental, but still important, information. We hope the audio will not repeat the same caption information. Instead, the audio should go beyond the caption to convey information that is more compelling in the spoken word...a subject's voice faltering as she talks about her dead son, the rage that a photographer feels at the injustice of the world.

Sometimes the audio can describe the background to the story, or maybe what happened right after that picture was taken. The audio can also describe more abstract or philosophical thoughts, or more opinionated thoughts, than would typically appear in a caption.

Here's a good example: We have an image of a child's drawing of a relief plane in Sudan. The caption describes what the child drew, where the picture was drawn, and that this child has been receiving food aid from the World Food Programme for all of his life.

In the audio, you hear the photographer describing how since ancient times, people have drawn what is important to their culture...animals they hunted, wars they fought. A child drawing a relief plane shows how important that aid is to their life.

Which should I work on first, pictures or sound?

That depends. If there's sound that I think might be gone in a few minutes, I'll probably break out my Marantz and start recording. If the light is perfect but fading, I'll most likely make pictures first.

There's no right way to do it, and there's always a tradeoff. You have to accept the fact that when you are recording, you'll miss some great images and when you are shooting you'll miss some wonderful sound. I've tried doing both at once, it doesn't work very well. Getting good sound takes just as much skill, energy and focus as getting good pictures; it's tough to do both things at the same time.

With that said, a good sound bite can open your eyes to a new picture you need to capture to complete the story. A good picture, now that you have audio recording as a tool, will often prompt you to lay down an audio track to support the frame.

Shooting for sequences

One thing to consider as you are shooting is that you will want to have several still images to cover the audio. In other words, you will want a sequence of images to combine with the narrative of your audio. Consider locking in to a composition and letting the motion move through the scene, still focused on capturing decisive moments. Consider using a tripod to be absolutely rock solid.

Keep track of what you shoot and what you record

If you make a nice frame of a kid kicking a soccer ball, don't leave the situation until you get the sound of a kid kicking a soccer ball. Don't stop shooting until you have a sequence of images, consider a beginning, middle and end to the visual sequence. Then, you could do interview with the kid about why he or she likes to play soccer.

If, when recording, you get the sound of the woman's dog barking and you want to use it, work on making storytelling pictures of the dog barking. By really listening and really looking, you will find that your pictures will lead you to sounds, and your sound will lead you to pictures. When you find this happening, it all starts to come together.

Recording Interviews

An audio interview is a controlled situation, much like an environmental portrait. When you do an interview, it's your responsibility to make the person talking as easy to understand and sound as true-to-life as possible.

Location, location, location!

Choose a quiet location. Find a spot with soft surfaces that absorb sound. Sit on a couch rather than a kitchen chair. Cover a table with a blanket. Close the curtains. Turn off the computer. Unplug the fridge. Just remember to plug it all back in before you leave.

What you're trying to do is create a sound booth wherever you are for the interview. This process is extremely important to the final product and is similar to shooting an image against a clean background as opposed to a busy one.

A car with closed windows is a great place to do an interview. Avoid places with lots of echoes like gymnasiums or hallways. If you have to interview someone in a space with bad acoustics, you can compensate somewhat by placing the microphone very close to the person's mouth. This will reduce the ambient audio and use their tone as the primary level.

For a dynamic microphone, two inches works great.
For a condenser shotgun microphone, you can get away with a foot or so.

Dynamic microphones are non-powered, more durable, cheaper and usually larger than condenser microphones. Condenser microphones require power, have greater dynamic range, and are more sensitive and more fragile than dynamic microphones.

The farther away the microphone is from the speaker's mouth, the more presence the ambient sound will have in the recording, and the less bass and richness will be made from their mouth to the recording media. Microphone position is akin to composition.

Avoid consistent ambient background sound

You will have a very difficult time editing if you conduct an interview with consistent background sound such as music playing on the radio. It's almost always better to find a quiet space with good acoustics and gather the ambient you will need before or after the interview.

Again, you're in charge in an interview situation. Ask people to turn off the computer, even unplug the refrigerator. These sounds always come out much louder in the recording than they seemed while you were making the recording.

A smart tip shared by Brian Kaufmann, a talented student at Brooks Institute, about gathering audio in a scenario where there is ambient sound in your environment that cannot be quelled:

"Most audio equipment is usually carried in a pelican case that can be used as a sound booth. The inside of the case is covered in sound absorbent foam, so I will sometimes prop the lid open and set the microphone up inside the case facing outward. By having your subject speak into the microphone while this foam surrounds it, much of the ambient noise will be cancelled out. If I don't have a pelican case around I use a cloth bag or place any kind of soft material (cushions, clothes, etc.) around the parts of the microphone that aren't directly in front of my subject."

Location, location, location! Part 2

Equally important, ambient sounds can make an okay interview really sing. If, for example, you were interviewing an Italian Chef, think how cool it would be to hear the ambient noises of a kitchen in a busy Italian restaurant in the background! (Bear in mind, though, that the background can overpower your speaker, or that someone might drop a pot just as the Chef is explaining his or her inspiration to you.)

You can always do the interview in a quiet place, record the kitchen sounds separately, and then mix the two together, thereby giving you much more control over the relationship between the two sounds. Always think about (listen to) your surroundings and how you can best tell the story.

How to engage your subject during an interview

You know how physically and mentally exhausted you feel at the end of a good shoot when you've really made some good, meaningful pictures? You should feel the same way at the end of a good interview. Getting a good interview takes energy.

You have to be thinking all the time, thinking about where the interview is going, what to ask next, but not at the expense of listening to what the person is really saying. Really look at a person when they talk to you. If you truly engage them with your eyes, it will help them ignore their surroundings and the microphone, and get into the space they need to be in to speak honestly with you.

Get your subject to qualify their own statements

Suppose you're interviewing the paperboy. You ask, "How long have you been a paperboy?" He says, "Two years." "Two Years" is what you have on tape. What are you going to do with that statement? It can't stand alone because there's no context to the response unless you include the question.

Instead, ask, "How long have you been a paperboy, and what's your favorite part of the job?" By having to qualify the order of his answer, "I've been a paperboy for two years and I love throwing the paper at garage doors." Now you've got something you can use.

How to get what you need in an interview situation

Ask open-ended questions. A good way to start any interview is to say, "Tell me about..." I like to ask questions that encourage people to remember things in a sensory way, "What did it sound like when...", "How did it feel when...", "What did it smell like...."

Some people tend to go off in a direction you didn't think your interview would go. If you have the time, let them go. You will often get your best material from these situations. If you don't have the time, don't be afraid to politely step in and steer them back to the subject at hand. Sometimes you just have to ask the question again.

At the end of every interview always ask, "Is there anything I should have asked but didn't?" Sometimes, people won't volunteer things, even if they feel strongly about them. When they realize that this is their last chance, they will often divulge something that they've been thinking about throughout the interview, waiting for you to ask. This "last" question also allows them to end the interview, rather than you.

Often, people won't really open up to you until what they think of as the "formal interview" is over. It's only then that they open up the floodgates of information. If you can, that's the time to get the microphone back out and keep rolling.

Some people don't want to open up, don't want to let you in. You need to gain people's trust. Again, give a little of yourself if you expect them to give back. Be honest with people. Empathize with people.

Some examples from the Broadcast side

I saw Les Rose give a presentation at the Northern Short Course in Reston, VA in 2005 and he talked about how he gets people to be comfortable with him from the very start. First, he talked about leaving the gear in the car and going to meet people without your camera if at all possible. Instead of showing up with your gear and being perceived as a camera person if you meet them first and then bring your gear in you will be a person with a camera, not a camera person. It's a big difference.

Doug Legore, former NPPA TV Photographer of the Year, has a surefire way to pick the right person to put his wireless microphone on when approaching a group:

“Ask who the loudmouth is in the group and someone will either say it's them or everyone else will point to them.”

Silence Is Golden

When someone finishes answering a question, if you feel they might have more to say, simply remain quiet. Most people aren't comfortable with silence in a conversation, and they will say something to fill it.

NBC News Correspondent Bob Dotson spoke at the NPPA Video Workshop in Norman, OK and talked about the art of asking questions:

“Silence makes most of us uncomfortable. Use that fact to help you get a better sound bite more quickly. People nearly always answer questions in three parts. First they tell you what they think you have asked. Then, they explain in more detail. If you don't jump right in with another question, if you let the silence between you build, they figure you don't yet understand and they make an extra effort to explain their thoughts more concisely. Often they make their point more passionately and precisely the third time.”

Don't let your equipment get in the way of getting a good interview

If you're not comfortable with your equipment, those you interview won't be either. Practice operating the equipment. Practice connecting and disconnecting the microphone. Learn which buttons are which by feel. You should be able to operate your recording device in total darkness.

You also need to trust your equipment. Nothing is more distracting and unsettling to someone than a journalist who constantly checks his or her gear to make sure it's working properly. By doing so, you simply remind people that they're being recorded, and you move farther away from getting something truly personal and honest.

Right before you begin the interview, try briefly touching the microphone to your cheek. This will subtly show your subject that they don't have to be afraid of it.

Don't pay any attention to the microphone that you're holding two inches from someone's lips. Look them in the eyes, not the mouth. This will tell them that the microphone is normal, that it shouldn't bother them that you are connecting with what they are saying. Listen to what they have to say. Soon, they will forget about the microphone, and they will relax enough to give you a good interview.

This ability to look the subject in the eyes is one of the reasons I prefer an audio interview over a video interview in which I have to ask questions while pointing a camera at the subject. Don't set the recording gear on a table between you and the interviewee. This only seems to put a distance between you. Set it off to the side.

Don't ruin your interview with uh-huhs and mmm hmms

When someone speaks to us, we often let them know we're listening by saying, "Uh huh", or "mmm hmmm." Don't do it. Let them talk. You will be very disappointed when you go to edit the audio and you hear yourself in the middle of some of their words. Simple nods and smiles are enough to let most people know you're listening.

Remember that body language is said to be the primary form of communication in an interview. Lean forward to show interest. Engage them eye-to-eye. Show physical interest with your body language and get wrapped up in what they are saying to you.

What is "natural sound" and what can it do for me?

Natural sound is any sound other than a formal interview. Stop and listen to what you hear right now. What you hear is natural sound. It might be a computer hum, a radio or television, people talking in the other room, the wind blowing, cars going by, someone making dinner, the baby crying, your fingers on the keyboard, or, pure silence. These are all examples of natural sound and it provides the details that give an interview a sense a place and helps to paint the picture.

Natural sound can be incorporated in a variety of ways in audio storytelling, so gather all you can when you're in the field. If, just for a moment, the user felt like they were on that farm where you did that story, you have succeeded. What put them there? The interview with the farmer or the natural sounds of chickens, cows or the tractor sprinkled throughout the story?

Wherever you record sound, even if it's an interview, be sure and get 30 seconds or more of pure background sound, the tone of the room if you will. Every place has its own "silence", and they all sound different. You may need some of that silence to cover some of your edits later in the editing process.

Wear headphones. Yes, wear headphones.

Not only are you expecting someone to talk into a microphone, you're doing it while wearing headphones at the same time. Headphones are the only way to truly monitor what the microphone is picking up. If you don't wear headphones, you really don't know what sound you're getting, or if your equipment is even working.

If you accept it as normal, so will those around you. Not wearing your headphones is akin to shooting an image without looking through the viewfinder. We've all shot from the hip now and then, but would you do an environmental portrait that way?

Would you please say that again?

If the phone rings in the middle of an interview, or someone coughs, or a dog barks, or a lowered 1992 Civic with a loud exhaust goes by, don't hesitate to ask the speaker to repeat him or herself.

Purchasing the right gear for you

Currently, MediaStorm uses the Marantz PMD660 digital recorder. The PMD660 runs on four 'AA' batteries and records to a CF card.

While the Marantz deck is a bit larger than some of the other hand-held devices on the market, it offers two XLR microphone jacks. This enables you to directly connect professional microphones for the highest quality sound recordings. The Marantz also offers manual record levels, phantom power, level limiter, and lots of other features, including the ability to transfer files to a computer using a USB connection.

The machine is rugged and trustworthy and offers very little noise pickup from the mic pre-amps. Its biggest drawback is its slightly larger than hand-held size.

Please refer to the Submissions page on the MediaStorm website for a complete list of MediaStorm's PMD660 kit.

(Note: when looking at levels of gear, a "professional" or "prosumer" recorder has xlr inputs and provides phantom power. Recorders without these two features are generally considered "consumer" recorders)

Alternative Mini Connection Options

There are several digital recorders that use a mini microphone input. If you're using an XLR microphone, you will need to purchase a conversion cable, i.e., XLR to mini.

Using a mini microphone input can lead to lower audio fidelity, but the benefit is a less expensive, more compact unit with longer battery life.

Another concern with mini connections is that they aren't as secure as XLR and can more easily disconnect.

We do not recommend the use of iPods for audio recording. But if you do not have access to an XLR input recording device, there are several other mini mic recorders you could consider.

Microphones

Microphones are to your recording device what lenses are to your camera. There are wide microphones, tight microphones and everything in between.

We use the Beyer M58. It's a dynamic (non-powered) microphone with a fairly wide pickup pattern and low handling noise. Handling noise is the noise that a microphone picks up when you touch or maneuver the microphone. It's more likely to be heard during silence. The Beyer M58 is extremely durable.

When using this microphone for an interview, try to get it close to the person's mouth, about 2 inches away. This helps bring out the natural bass in their voice and make them sound more present. It's a good all-around microphone. If you carry only one microphone, this is a good choice.

Another alternative is the Sennheiser ME66/K6. It's a condenser microphone with a very tight and narrow pickup pattern. It's what's known as a "shotgun" microphone. It's powered either by battery or phantom power. The Sennheiser ME66/K6 is more fragile than the Beyer M58, and is more sensitive to handling noise. It's best to keep it about 12" away from an interviewee's mouth.

Whichever microphone you choose, it's best to always carry a microphone windscreen. Windscreens help keep any wind noise, or p-pops, out of your recordings. At a mini-

mum, use a Sennheiser MZW66 Pro Foam Windscreen for ME66 Microphone.

We also use what's called a "dead cat" with our shotgun microphone. This is a very hairy version of a windscreen, and is even more effective at reducing wind noise.

Wireless microphones

A wireless lavalier system can be very useful, but a good one is expensive, and it can be unnecessarily complicated. When you use a wireless, you pin a small lavalier microphone on your subject, plug it into a transmitter they wear on their body, out of sight. The receiver plugs into your recording device.

Advantages of wireless microphones:

- The biggest advantage is that a wireless system allows you shoot and record sound at the same time, but you have to be careful when doing this as the click from your camera will be audible.
- It allows your subject to go about their business while talking, which can make some people feel more relaxed than they would in a formal interview setting.
- It also allows your subject to be a great distance from you.

Disadvantages of wireless microphones:

- A good system is very expensive.
- A wireless microphone system involves a transmitter, receiver, and dealing with more cables than you would with a handheld.
- If your subject is moving around, you will often get sound of clothing rubbing against the microphone.
- Lavalieres are more susceptible to wind noise than a handheld microphone with a good windscreen.
- If your subject turns their head away from the microphone and talks, you're often level with sub-standard audio.

Please refer to the Submissions page on the MediaStorm website for a complete list of our video kit.

Links

If you are considering new equipment, we recommend you check out Transom.org's section on tools: <http://www.transom.org/tools/>

They provide updated reviews for a wide variety of audio products, including the newest recorders and microphones.