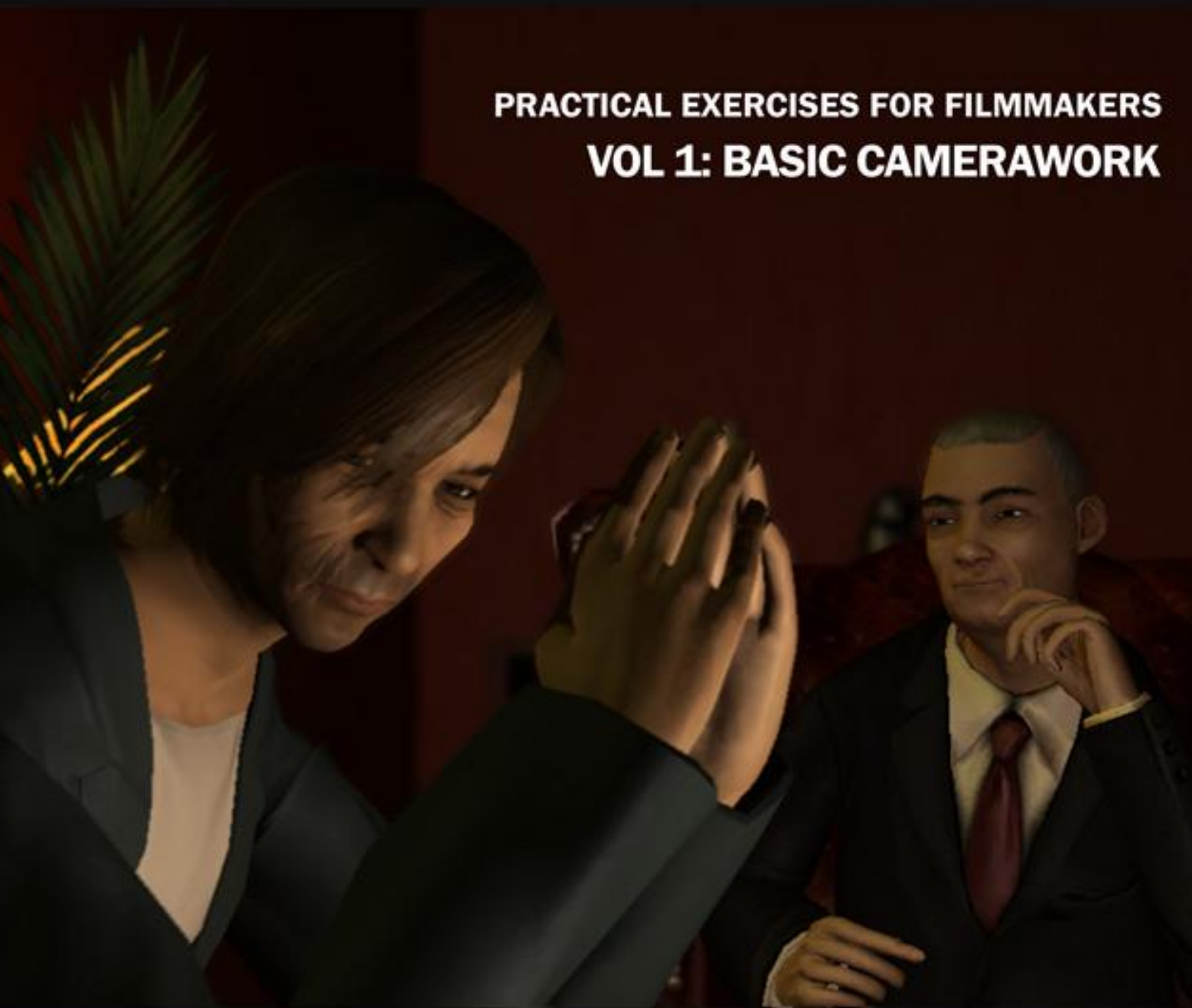


# **MAKING BETTER MOVIES**

**WITH  
MOVIESTORM**

**PRACTICAL EXERCISES FOR FILMMAKERS  
VOL 1: BASIC CAMERAWORK**



**MATT KELLAND**

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***"Spot on. The exercises are set up in a very logical, progressive way."***

*James Martin, University of North Texas*

***"Excellent - great for schools and colleges alike. The writing style is perfect - neither patronising or too authoritative."***

*Jezz Wright, Blockhouse TV*

# FOREWORD

**by Phil South**

When I was asked to write the foreword to the *Making Better Movies With Moviestorm* series, I jumped at the chance for two reasons. One is that it was Matt Kelland asking me. The other is that I love a chance to talk about movies. Ask anyone. Ignore their eye rolling; they always do that. It's a sign of their deep fondness for me.

Matt and I have been friends for many years, and I often think that one of the reasons that we are still friends after all these years is that he's one of the very few people I've ever met who cares as much about films as I do.

I recall the genesis of Moviestorm very well. It was called Machinemascope back then, and the whole reason it got created in the first place was to answer the question "is it possible to make movies on a home computer." Of course we now know the answer to that. It is – and not only is it possible, but many thousands of people have welcomed the chance to make their own films, for fun, for education and personal development and for profit.

The problem though, as you're probably aware, is that merely producing great tools and putting them cheaply and easily in the hands of anyone who wants to use them does not guarantee good work. You can hand anyone a page layout program like InDesign or a music sequencer like Logic, or even a video editing software like Final Cut Pro, but you can't make what they produce any good. You rely on their talent and experience to make good software produce great work.

There are a lot of safety nets in Moviestorm which correct most of the common mistakes that beginning movie makers always make. A lot of composition and lighting elements have been taken care of, allowing you to focus (pun intended) on the job in hand. And no, the job is not *making movies*. Nope, the job in hand is *telling stories*.

It doesn't matter if what you are making is factual rather than fictional. News editors talk about stories too. A story has a beginning, middle and end, and the structure helps you to "get" what the creator is talking about and enjoy the story they are telling.

But how do you get good at telling stories with movies? It comes down to experience, of course, and experience comes through practice. So how do you get experience in film making, when it takes so much time and effort to make even the simplest piece of film? You have to find actors and crew, then there are lights and cameras to buy, writers to bully, locations to find... and there are some scenes you just can't film at all without a crazy budget. It's a problem filmmakers have faced for a hundred years. But now there's a solution in the form of Moviestorm.

You see, Moviestorm doesn't just allow you to make finished movies if you are already an accomplished storyteller. It allows you to grow your own storytelling talent by putting in movie-making hours. As I said above, in the world of filmmaking, practice usually involves a lot of equipment, money and mostly time, both yours and other people's. It's hard for most people to put in the hours. It's a lot like a pilot who hasn't got easy access to a plane. So what does he do? He books time in a simulator. Even if a trainee pilot has regular access to a plane, he still books a lot of time in a simulator because it's much cheaper and safer than using a real plane. He can practice whenever it's convenient, and by logging enough hours he improves his skills almost automatically.

The same is true of any technical ability which has some art to it. The more you do it, the better you get. It's a creative muscle memory. It's the same with creativity and mastery of your storytelling chops. The more you do it, the better you will get. Shots flow to shots in a seamless hypnotic glide, because you know what you are doing and you know exactly where to go at any one time, in the service of your story.

This excellent series of books will guide your development. In each of the carefully structured and easy to follow exercises Matt leads you through all the movie making tricks you will need, from the most common to the most difficult. It's a simple regime to follow: just read what's on the page and do it. Then do the next one, and the next, and keep working your way through. Pretty soon you'll be flying through them, and your mastery of both Moviestorm and film technique will grow. Most importantly, you can please yourself as to when you log the hours in your virtual movie-making cockpit. Take your time, and stagger the sessions across a number of weeks rather than trying to do it all at once.

Don't make the mistake of thinking that all you need to do is read how it's done. You've got to actually *do* the exercises. Try all the variants, review your work critically, and then do the follow-ups. The whole point is that when you start filming for real, you've done this so many times that you're instinctively falling back on hundreds of hours of real, practical, hands-on experience in the simulator.

Always remember, learning how to make films to tell stories is not about theory. It's about practice. If you want to get good at telling stories with films, there is absolutely no substitute for putting in the hours. I won't scare you by telling you how many hours they say it takes to become a genius, but it's a lot. Genius will take time, but getting good at telling your own stories just became a lot easier.

Phil South

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# INTRODUCTION

This series of books grew out of a selection of articles I wrote for the Moviestorm blog in 2009-2011 on how you can use Moviestorm to practice film techniques. Several people contacted us to ask whether we had any specific examples of how to do it. I realized I'd talked a lot about theory, but very little about practice. I therefore decided to put together this collection of simple exercises you can do to learn individual techniques.

There will be several volumes in the series, covering a range of techniques including staging, editing, lighting, sound, and more. This initial volume covers the basics of camerawork.

These exercises aren't in any way specific to making movies with Moviestorm. They're standard techniques that apply to all forms of film. For example, one exercise focuses on filming a scene without moving cameras, and then filming it again but allowing the camera to move. Another, in the volume on staging, requires you to shoot the same scene with and without extras. You can take what you've learned to any other film-making medium - full CG animation, live action, or whatever. It's about learning skills, not about learning to use specific tools or media.

The main advantage of using Moviestorm as a training tool is that you can practice whenever it's convenient for you, and you don't need to assemble a cast and crew each time. And if you're not happy with what you've done, you can easily go back and do it again and again until you're satisfied - reshoots are cheap easy!

The other advantage of using Moviestorm is that you're not constrained by the usual problems of the student filmmaker. You don't have to worry about shutting down city streets to film in the middle of Manhattan or London. You can have a huge crowd of extras. You can use cranes, helicopters or other equipment, and film stunt scenes, car chases, and explosions without worrying about insurance or cost. Moviestorm is a versatile tool that will give you a chance to learn the kind of things that most novice filmmakers can't ever do in real life.

The exercises are all fairly adaptable. Generally, you won't need any particular packs or content: any version of Moviestorm will do. Most of them work on the same principle: take a single scene, and film it in several different ways. You can use the same scene over and over again if you want - I often use a short scene from one of Per Holmes's training DVDs, and another, slightly longer one, from a parody soap opera I was working on some years ago. This is actually a pretty good way of working, as you can focus explicitly on the one aspect you're practicing, and reuse much of what you've previously done; sets, characters, recorded dialog, and so on. You'll also develop an increasing empathy with the scene, and you'll find each take getting better and better, rather like a musician practicing the same piece over and over. When you've worked your way through several exercises, go back and compare all the different versions with your first attempt, and see what you've achieved.

This series of exercises isn't a substitute for practicing with real kit. You'll still need to get familiar with real cameras and lights, and you'll have to get used to working with real actors and crew on real sets. Practicing this way simply gets you used to knowing what you're going to shoot and developing a sense of how it's going to look when it's cut into your final film.

Although most of the book is written primarily for directors, it's useful for others as well. It's an easy method for editors to generate the footage they need to practice cutting scenes in many different ways. It's a good way for scriptwriters to understand how their written words can be portrayed on the screen. It's a useful way for camera operators to practice filming, or for producers to understand how creative choices affect the production costs.

Most importantly, though, it's a way to ensure that when you start making movies for real, you'll know exactly what you're doing, and you won't be wasting everyone else's time and money trying to figure out the basics. As we're fond of saying at Moviestorm, "shoot first, ask questions later" is the maxim of the unprepared filmmaker, and "fix it in post" is just another way of making trouble for your editor.

# EXERCISES

## How to use this book

The book is set out in a workbook format. Each exercise uses a standard structure:

**Technique:** what you're going to focus on

**Scenario:** what type of scene works best for this

**Exercise:** what you do

**Review:** you critically analyze your work and see how the different versions compare

**Follow-up exercises:** more things you can try to develop this technique

### To get the best from this book, it's important that you do two things.

First, you must actually do the exercises.

Reading them won't make you a better film-maker any more than reading about sports will make you an athlete. While developing *Moviestorm*, I've shot literally hundreds of hours of animated footage over the last few years. Looking back at the things I made early on, the improvement is obvious. Now, when I need to film something like a simple dialog or a walk, I'm not wasting time. As I read the script, I instinctively know how I want to film it. Camera angles and moves, cuts, staging, lighting, and even sound come alive in my head. These days I don't even make a storyboard; I simply go straight to *Moviestorm* and quickly block out a rough version. That kind of fluency comes from having shot the same type of scenes over and over again.

Second, you must be super-critical with yourself when it comes to the reviews.

The aim isn't to complete all the exercises as fast as possible. It's to learn from them and find ways to improve. In most cases, there are no right and wrong ways to shoot these scenes (although there are accepted conventions it's useful to be familiar with). It's about trying out different things to see what happens. Even if they don't work, you've learned something. So don't just give yourself a pat on the back and move on. Be picky. Find the things you don't like. Ask yourself if that scene could possibly be any better. At some point, you won't find anything more you can do to it. So move on, but come back to it later when you've practiced some new techniques. I'll guarantee you'll see new ways to film the scene.

# STATIC VS MOVING CAMERAS

## Technique

**Film a scene with and without moving the cameras.**

This is probably one of the most important film techniques to practice. It's one of the main elements that differentiates film from any other medium. Creating interesting compositions is just the starting point: the next stage is learning how to get between those key frames. That's where camera motion comes in.

Good camera movement is critical to the flow of your film. Bad camera movement, however, is distracting. Just because you *can* move the camera doesn't mean you *should!* It's essential to develop an innate sense of time and motion, and ensure that each of your camera movements fits with the scene, the script, the story and the sound. You also need to be aware of the shots before and after each movement and consider whether you are changing direction or speed when you cut.

On the other hand, as well as learning to use motion, you need to get practice with using static cameras. Although the temptation is to move the cameras frequently, static shots are often just as effective. They're also quicker and easier to shoot, since you don't have to worry about coordinating the camera and the actors. You may also be restricted in other ways: although you may want to move from a high crane shot into a ground level shot, the reality may be that you're shooting from a high window or platform, and you don't have that option.

It's only when you edit the scene together that you really find out what works and what doesn't. Drawing arrows on a storyboard doesn't always give you an accurate sense of how a shot will come out. Even on set, you may get some great shots, but that doesn't mean they'll edit together well. This exercise trains you to think in terms of complete scenes rather than individual shots, and helps you understand how to use camera motion effectively.



*If you were moving the camera, you could gently push in from the medium close shot to the close shot. However, if you just cut between two static shots, you'd create a jarring jump cut. In this case, you'd need to cut away to a different shot and then back in.*

Use a short scene, between 1 minute and 90 seconds. Dialog or action scenes can work equally well, and you can use interior or exterior locations.

# STATIC VS MOVING CAMERAS

First film the scene using completely locked cameras. To give yourself maximum constraints, do not even allow yourself to pan or zoom: the framing must stay constant throughout. You can use extreme camera angles, as if you had cranes or other equipment, but the camera must not move.

Now film the scene again, but allow yourself full freedom of movement: you can pan, track, dolly, zoom, or anything else you want.

## Review

How does the camerawork affect the scene? What does the motion add to the scene? Is it distracting?

When you're moving the camera, do the shots flow well together? Does the scene feel coherent, or is there a stop-start feel to it?

Do you like your camera movements to go all the way from the beginning to the end of the cut, or do you prefer a pause before and after the movement? In what circumstances would you use or not use a pause?

How do the different constraints affect your cutting pattern (i.e. when do you use a move instead of a cut to get to a new framing)? Do you still cut at the same places?

Do you have to change the staging between the two versions?

How well can you cover actor movement when you can't move the cameras?

What scenes work well for static cameras and which benefit from motion?

How many setups would you need for the different versions? What kit would you need?

## Follow-up exercises

Refilm the scene using very slowly moving cameras in place of the static ones from your first version, pushing in or panning slightly. What difference does adding just this small amount of motion make?

Add different music. How does this affect whether you prefer static or moving cameras, and the speed at which the cameras move?

Film several scenes and ensure that the amount and style of movement in each is coherent and appropriate to the scene. They do not need to be the same, but they do need to go together successfully. For example, have two consecutive dialog scenes, then an action scene, and finally another dialog scene.

# LONG SHOTS VS CLOSEUPS

## Technique

**Compare the effect of filming the same scene in two different ways.**

The most basic decision you make every time you shoot a scene is the framing. Probably the first thing you think of will be the shot size. The amount of person you see in the frame is your primary compositional element, and that, more than anything, determines how your audience sees your film.

Your main decision is deciding what to leave out, and conversely, where to direct your viewer's attention. Longer shots show more, but lack detail, especially on small screens. Close shots show less, but force the viewer to look at whatever you have determined is most important.



*The long shot gives a good understanding of the space and the surroundings. The closer shots allow the viewer to get more involved with the characters and their emotions.*

Use a short scene involving two or more people. You can use action or dialog scenes, though dramatic dialog scenes are probably easier. Either an interior or exterior location will work.

# LONG SHOTS VS CLOSEUPS

Film the scene using entirely long shots. You should be able to see the head and feet of your target character at all times.

Film it again, but this time start with a master shot and then use close and medium shots only. Do not frame below the chest at any point after the master shot.

Finally, film the scene with a combination of long and close shots to get a feel of how to mix them.

## Review

How does the shot size affect the storytelling?

Is it clear to the viewer who is the focal point at any one time?

Does the viewer have an awareness of the space and the relative location of the characters?

How do you edit the scene differently? Do you cut in the same places? If you use more camera movement, how does this affect the flow of the scene?

What scenes work better with long shots, and what work better with close shots?

How many setups do you need? What effect will this have on shooting schedule?

## Follow-up exercises

Repeat this with as many scenes as possible until you develop an instinctive feel for appropriate shot sizes. Filming action scenes is a particular challenge.

# USING CU/ECU - TELEPHOTO VS CLOSE CAMERA

## Technique

### Experiment with two different ways of shooting close shots.

When you film a close shot on an actor, you have two options: move the camera in close, or stay further back and use a long lens. While you may be guided by your DoP or be constrained by physical or technical limitations, they give quite different results, as the shots below illustrate. As the director, you need to be aware of the visual implications of the lens selection.

In isolation, either type of shot can work well and look good, but you need to see them within the context of the film to tell which will work better for the specific scene. (This is a good case for using pre-visualization rather than just relying on a hand-drawn storyboard.)

*Note that this exercise does not replicate physical issues with real cameras, such as the problems of focus when an actor is extremely close to the lens.*



*Left: standard lens setting. You can see most of the rear character's upper body, and some background detail. Center: long lens. The character behind is now almost as large in the frame as the foreground character, and there is almost no background visible. Right: wide angle lens. There is a lot of background visible, but the foreground character appears distorted. This can be a useful visual effect for some scenes.*

Use a short dialog scene involving two or more characters. Use a medium size interior set or an exterior set. Choreograph the scene using no character movement, but add in gestures so that they are acting naturally. Even though the body movement can't be seen, it will present the challenge of keeping the characters' heads in shot.

# USING CU/ECU - TELEPHOTO VS CLOSE CAMERA

Film the scene using close-ups wherever possible. Use the standard lens setting throughout.

Film it again using the exact shot sequence and editing pattern, but use long lenses to make the shots look different.

## Review

Compare the difference between the two versions. Which looks more natural? Which is easier to watch?

What difference does it make when doing an extreme close-up compared to a head and shoulders shot?

How easy is it to keep the characters in frame when they perform simple gestures and talk?

Do you have to light the scene differently to make the different versions work well?

What physical constraints did you have with camera placement (walls, other characters, props etc) that influenced your choices?

## Follow-up exercises

Have your characters move during the scene and see how this affects your camerawork.

Can you successfully mix close cameras and long lenses in the same scene?

Film an action scene or fight sequence using close-ups.

# EXTENDED SHOT DURATION

## Technique

**Practice filming a scene with different numbers of cuts to develop experience with shots that last a long time.**

Most shots last 3-6 seconds. However, sometimes, you want to have much slower pacing. Directors like Werner Herzog often use extremely long shots – in *Wozzeck*, for example, some entire scenes are filmed with a single shot from a static camera. Alexandr Sokurov's *Russian Ark* has no visible cuts at all, and appears to be a single moving shot 90 minutes long.



*Possible cutting pattern for an extended tracking shot: start close on the speaker and set the location - note the Eiffel Tower in the background. Pull back to reveal the listener. Continue pulling back along the table to show a room full of listeners. Move the camera to the side and then along the table so you can see the face of the person on the left. The speaker stays in view throughout, keeping continuity, but there is always something new for the viewer to look at. A shot like this can last 30 seconds or more with no problem.*

Use a scene about 1 minute to 90 seconds long. Dialog or action can work well, and either interior or exterior scenes are effective.

## EXTENDED SHOT DURATION

Film the entire scene using just a single master shot. Do not move the camera.

Film it again with just one camera. You can move the camera, but do not cut away.

Film it a third time using as few cuts as possible – make each shot last as long as possible.

Film it a fourth time using whatever cuts you need.

### Review

How does the cutting speed affect the overall pacing and feel of the scene?

What do you need to do to make the first two versions interesting to watch? Can you sustain a single shot for that long?

How does the duration of the shot affect your shot selection?

What was the minimum number of cuts you felt you needed to make the scene interesting?

What sort of scenes benefit from long shots and slow cuts?

How many different set-ups did you use? What effect would this have on shooting time on set?

### Follow-up exercises

How long can you make a single shot last without it getting boring?

Create a sequence where you follow characters through an environment without cutting away.

# EMPHASIS ON DIFFERENT CHARACTERS

## Technique

**Film a scene in different ways and change who the viewer regards as the main characters.**

When you're faced with a script, your first job is to decide how to portray that on the screen. It's not just a matter of filming whatever's in front of you. You need to interpret that script and choose what's important. That interpretation changes the whole film.

For example, the script may involve an argument between a teenager and her father. She's protesting that she's been grounded unfairly, but he's resolute. Without changing a single word on the page, you can interpret this in two ways, allowing the viewer to empathize with either of the characters. You can decide to make this scene about a girl being unfairly treated, or about a father's problems with an unruly child. Significantly, choosing which character to emphasize isn't the same as choosing who the viewer sympathizes with; although you may be directing their attention to the father, the viewer may still see him as a cruel, domineering parent. Effectively, there are two things you're doing at once; you're telling the viewer which character is more important right at this moment, and you're enabling the viewer to identify better with that character. If they're thinking about the father, they'll be making judgments as to whether he really cares about her, about his motives, and about the effect this argument is having on him.

Some of this will, of course, come from the acting, but most of this comes from your directing style. A lot of the time, the viewer will simply project their own thoughts onto the characters; the same simple nondescript look in a reaction shot could mean boredom in one version and callousness in another.

The easiest technique is simply to devote most of the screen time to your main character. However, you can do much more. By placing your main character in a dominant position, you make them seem more important. The lighting affects who your viewer looks at. Camera angles affect the way the viewer sees the characters. Motion makes the viewer more or less involved with a character.



*Left: balanced emphasis. The viewer isn't sure who to focus on. Center: emphasis on the girl. She's in the foreground, and the man is dimly lit. Right: emphasis on the man. Although he's in the background, we can't see the girl's face, and he's better lit. Her face is covered, reducing our empathy with her.*

Use a dramatic dialog scene. This exercise works best with two strong speaking parts with roughly equal amounts of dialog.

# EMPHASIS ON DIFFERENT CHARACTERS

Film the scene emphasizing one character.

Film it again, using the same dialog, but emphasizing the other character. Try to change the emphasis by using methods other than just giving the lead character more screen time: use lighting, sound, framing, placement of actors, editing and other techniques.



*Compare these two very similar shots using identical staging and camera angle. The left is the man's shot. The lighting is on him, and the girl's face is turned away. The right is the girl's shot. The lighting is on her, and she's looking towards the camera. Subtle staging like this can affect how the viewer reacts to your story.*

## Review

What did you do differently?

How significant are the start and end shots of the scene?

Does the viewer sympathize with the main character? How would you change that?

Which version seemed to be a better interpretation of the script?

What led you to determine how best to interpret the script?

## Follow-up exercises

Put the scene into the context of a longer movie. How does changing the viewer's perception of this scene change the way they see the rest of the movie?

Use a scene where one character has much less dialog than the other and make the character with fewer lines more important.

Add in a non-speaking part, and make them the main character; for example, a hidden observer, or a junior executive at a board meeting.

# CONVERSATION

## Technique

**Film a standard two-person dialog scene in three different ways.**

Filming dialog is the single most important technique you need to master as a director. Most of the screen time in any movie is people talking. There are three standard ways to shoot a two-person dialog sequence, and all of them should be absolutely second nature by the time you get onto a set. Whatever your preferences may be stylistically, you may be constrained by equipment or time to use fewer setups than you would ideally like, so you must be ready to go with the simpler setups.

Equally importantly, you need to be aware of whether you're showing the speaker or the listener. While the editor will do the actual cutting, it is the director's job to decide what to shoot. This can completely change the way the scene comes across.

There are of course many other ways to film a conversation, but this exercise will help you become proficient with the most commonly used conventional method.



*Standard camera set-ups for filming conversations. Master shot, over the shoulder shots, and close shots. Conventionally, you start with the master, push in to OTS shots, and then go to close shots before finishing on the master. Note that the shots are balanced, and the characters stay in their own side of the frame.*

Any two-person dialog scene will do, in any location. Aim for around 90 seconds to two minutes. Have the characters stay still while they talk.

# CONVERSATION

Film the scene with a two-shot from a single camera. Move the camera if you want to add interest and to emphasise different characters at different times.

Film the scene using a master shot and close one-shots on the two speakers.

Film the scene using a master shot plus interior and exterior reverses (close shots and over the shoulder shots).

## Review

Compare the three different versions. How do they alter the feel of the scene?

Is it necessary to maintain symmetry between the framing of the shots on the two people?

What effect does it have on the scene whether you show the speaker or a reaction shot? What in the script suggests which of those you should use?

How many different setups did each version require? How would that affect the shooting schedule?

## Follow-up exercises

Repeat this exercise over and over with as many different scenes as possible, experimenting with different camera angles and cutting patterns.

Film conversations where one or more of the characters is moving.

Add in a third person, and experiment with three-person filming patterns. This will involve a combination of two-shots and one-shots with master shots.

Continue adding more people.

Experiment with new camera set-ups such as filming from behind.

# TELEPHONE

## Technique

### Film a telephone conversation.

Telephones are a standard ingredient in films, but the two people are inevitably in different locations. This presents a range of challenges for the director, since they cannot be filmed like conventional face to face conversations.



*First speaker: filmed close, facing right and framed left, like a conventional conversation set-up.*



*Left: the ideal matching shot. Right: this shot is a long shot and probably won't cut well.*



*Left: this shot has the second speaker on the same side and facing the same direction. This implies she's talking to his back as he walks away. Right: this shot emphasizes the difference between the two locations. She's in a quiet, isolated spot, he's on a busy street - perhaps on his way to work after leaving her?*

Use a scene involving a phone conversation with the speakers in two different locations. 30-45 seconds is sufficient.

# TELEPHONE

Film the conversation three different ways. First, cut between shots of each person as they speak.

Second, cut between the two people, but don't stick rigidly to the speaker; show some reaction shots.

Finally, stick with one person and have the other speaking entirely off screen.

## Review

How does this affect the storytelling? How does the viewer perceive the off screen character?

How does the mood and subject of the conversation affect how you film it?

How are reaction shots different when the person is reacting to something off screen?

What additional complexity is involved in filming two locations and matching the timing of the dialog?

What do you need to think of in terms of matching the shots (eyelines, shot sizes, etc)?

What extra cost is added by using two locations?

## Follow-up exercises

Try it with split screen (this will require an external video editing program in addition to Moviestorm). When is this appropriate? How do you get into the split screen, and how do you divide the screen?

Stay in one location, but break up the shot on the speaker with shots on extras, minor characters, etc.

Film a phone conversation where one person is moving while the other is static. How does this affect your composition?

When filming some phone conversations, the audience only hears one of the speakers. Can you rewrite the scene so that the other half of the dialog is implied? Do you need an explanation afterwards, or can you work this into the onscreen character's replies? How does this affect timing?

# FOLLOWING WALKS

## Technique

### Film a character walking.

Filming characters walking is probably the second most common thing you do, after filming simple conversations. It seems simple, but there are many different ways to film a character walking, each of which the viewer interprets slightly differently. You may need to work around physical constraints, such as working in a narrow corridor, and you may be constrained by both equipment and available shooting time.



*Common patterns for filming walks. Starting from the position on the left, you can track with the character as she walks (center), or pan to follow her walking away (right).*



*Have the character walk into shot starting from the left and ending up in the same framing as above. This signifies arrival. The extreme long shot (right) gives a good view of the space but lacks intimacy and detail.*



*The "butt shot" is commonly used, particularly as the opening for a scene. You can follow the character, and gradually move up to show more detail, or you can have them walk off. Shooting from behind allows you to show what the character is seeing and be part of their journey.*

Start with an exterior set – a large park or a street is ideal for this. Use a single character. You do not need dialog.

# FOLLOWING WALKS

Film the character walking for about 20-30 seconds. Try it in the following ten different ways:

- Use a single master shot to capture the whole walk
- Use a panning shot to follow the character
- Use tracking shots to move with the character from the side
- Film the character from behind as if walking behind them
- Film the character from in front as if walking backwards in front of them
- Film primarily from the end point so the character walks towards you
- Film primarily from the start point so the character walks away from you
- Film entirely in close shots (head and chest)
- Film entirely in long shots
- Film from above as if from a high building, helicopter or security camera

When you've filmed the walk in a variety of ways, mix the different techniques together in various ways to create an interesting sequence.

## Review

What do the different versions suggest about the character and their motivations?

What do the different versions tell us about their environment?

How many camera setups did each version involve? What kit would have been required?

Where would your camera operator need to be to get the shot? (i.e. would they need to be standing in traffic?)

## Follow-up exercises

Film in an interior location and see how the physical constraints affect your shot selection.

Film two characters walking side by side, with and without dialog.

Include one or more corner turns in the walk path.

End the sequence with the character entering a door.

Restrict the time allowed for the shot: if the walk takes 30 seconds to perform, allow just 6 seconds of screen time.

Film the character running instead of walking.

Add in extras to the scene.

Use different music and see how this affects the way the sequence works.

# WALKING OFF - OUT OF SHOT OR OUT OF SET?

## Technique

**Experiment with two different ways of having a character exit a scene. You can show them physically leaving the set, or you can simply have them walk out of shot and imply their exit.**

When a character exits a scene, you have two main options on how to show this on screen. This is usually a stylistic choice, but you may also be constrained by scene length, or you may need to keep the viewer's attention on the characters remaining in the scene.

Leaving the set is definitive and makes it clear that the character is no longer present. However, this takes up screen time that may be better spent on the remaining characters. It works well when you want to convey something about the exiting character – for example, to show his reaction to the situation.

Having a character walk out of shot is economical on the filming, and keeps the viewer's attention focused on the remaining characters. This is useful when the exiting character is a minor role who has fulfilled their role. It can also be used for ambiguity – although the viewer assumes the character has left, they don't know that for certain.



*Left: two characters speaking. Center, we watch the policeman leave. Right: we push in on the girl as he walks out of shot.*



*Left: the cop is dismissed. Center, we watch the policeman leave. Note how the girl goes out of shot as the camera pans to follow him. Right: we push in on the two remaining characters as the cop walks out of shot.*

Create a very short dialogue between three characters. Towards the end, have one character exit, then conclude the dialog between the remaining characters. (A good example is a military scene where one character is dismissed or ordered to perform a task.) Use an interior scene in a smallish room, as this makes it easier to be definitive about the character's exit.

# WALKING OFF - OUT OF SHOT OR OUT OF SET?

Film the scene, and follow the exiting character as they leave the room to show that they have departed. Do this twice. First, leave a gap in the conversation where you are showing the walk.

Second time, continue the conversation off-screen as the viewer watches the exiting character leaving.

Film it a third time, but have the exiting character simply walk out of shot and keep the camera on the two remaining characters.

## Review

Which version works better, and why?

How does this affect the viewer's perception of the exiting character?

Does it make a difference whether you see the exiting character from in front or behind?

How does this affect the duration and pacing of the scene?

How many set-ups do you need for each version?

How can you use sound to indicate the character leaving without showing this on screen?

In the third version, is there a difference between having the character walk out of shot and moving the camera so that they are no longer in frame? What camera movements could you use to signify that they have left the scene rather than simply no longer being visible?

## Follow-up exercises

Can you stage it to show the exiting character leaving in the background while the conversation continues in the foreground? Does this work from a technical and a story viewpoint?

In the military scene outlined above, use this technique to suggest either that the exiting character is a minor character who has been dismissed, or a major character whose role in the story has just been defined.

# DEPTH OF FIELD

## Technique

**Choose how much of the shot is in focus.**

Focus isn't just about the technical capabilities of your camera. With digital cameras or animation, you can choose to have everything in focus all the time if you want. However, you can use focus stylistically to direct the viewer's attention to parts of the screen, or to obscure something you want to be mysterious about.



*Main image in full focus. Below left: the background is blurred to make the characters stand out. Below right: the focus is exclusively on the main character so that the viewer's attention is drawn to him.*

Use a scene 2-3 minutes long. Any scene will do. A scene including dialog with over the shoulder shots is useful. You can also use a large set for this.

# DEPTH OF FIELD

Shoot and edit the scene with everything in perfect focus.

Now reshoot it, but focus only on the key points of interest in each shot. Do not change anything except the depth of field.

Reshoot it a third time, changing anything you like. Change the camerawork, choreography, lighting, editing etc.

## Review

How does focus affect the storytelling? Does the viewer feel directed or constrained?

How important is it to match depth of field in each shot (i.e. if one shot is fully focused, can you cut effectively to a shot with only a small amount of the screen in focus)?

How does focus affect your shot selection?

How does focus affect lighting?

How does focus affect choreography and set dressing – i.e. does it matter about what's in the background of a shot if you can't see it clearly.

Is focus something you feel you need to be aware of as a director, or is it the DoP's problem?

## Follow-up exercises

Try the same exercise, but add different soundtracks. How does the soundtrack affect whether the lack of focus works?

Would you use the same techniques if you were shooting in 3D?

# RACK FOCUS

## Technique

**Within a shot, switch focus from one character or object to another, without moving the camera position.**

Rack focus allows you to control where the viewer is looking. It effectively gives you two different shots for one camera setup, which can make for more economical filming. However, it changes the pace of the scene, as the switch in focus isn't seen as a cut. Some filmmakers dislike the use of rack focus, as they see it as artificial, and prefer either to keep both characters in focus and stay with a single shot, or else use a cut.



*The rack focus shifts the emphasis from the boss in the foreground to his enforcer in the background. This works well if the two of them are about to have a conversation, or if the enforcer is about to do something.*

Use a very short dialog scene with two characters.

# RACK FOCUS

Film the scene with the two characters at different distances to the camera, ideally both with their faces visible. A good example is to film one character looking out of a window with the other one in a room behind her. In the middle of the scene, include a shot with both characters in focus as they speak their lines.

Now film it again, but this time switch the focus between the two characters so the viewer's attention is drawn from one to the other.

## Review

What difference does adding the rack focus make?

What effect does it have whether you're focused on the speaker or the listener?

When is the best point to change focus: during a line or between lines?

How fast should you switch focus?

Does the viewer get disoriented when you move their point of view on the screen? You should try this on different size screens so that the viewer physically has to move their eyes or head by a different amount.

If you don't rack the focus, does a standard two-shot work?

## Follow-up exercises

Do the same with an object, racking focus either from the object to the character or from the character to the object. Try this with both foreground and background objects.

Rack focus while the camera is in motion and see how this changes the shot.

# FOREGROUND OBJECTS

## Technique

**Add interest to your composition by adding foreground objects.**

Foreground objects can serve three purposes. Visually, they can balance out a shot by filling empty sections of the screen. Secondly, they can be used to obscure something the viewer isn't supposed to see yet, though this is hard to do well. Thirdly, they can add an extra layer of meaning to the shot.

You can do this with people, either main cast or extras, though this can often be confusing for the viewer. Normally, you use set dressing.



*Without foreground objects, the shot looks empty, and the character seems isolated and lonely. Adding the foreground objects not only gives a more pleasing composition, but also gives her a sense of being at home in a comfortable space, as well as saying something about her - has she had a party, or is she a drinker? The roses on the right are less effective: they unbalance the composition and dominate the frame, and it looks as though she's looking at them. However, this could work well if you rack focus from the flowers to the character, or use the flowers to pivot around and change framing. The shot could also work well as a transition from a previous scene which ended on, say, roses on a gravestone, or if the roses were significant to the story.*

Create a simple scene in a fairly uncluttered set. Interior or exterior scenes both work well. Dialog is useful, though not required. Action scenes do not work well for this exercise. Use one or two characters at most.

# FOREGROUND OBJECTS

Film the scene, using a shot placing the main characters in one third of the frame. Now add in foreground objects on the opposite side of the frame to balance the shot. The foreground object should be simple set dressing, not significant to the story.

## Review

What difference does it make?

What size and shape object worked well?

## Follow-up exercises

Add foreground objects to tracking and panning shots to add extra movement to the shot.

Experiment with focus to see what difference it makes when the foreground object is blurred.

Use the foreground object to obscure something in the shot.

Use an extra instead of an object as the foreground object.

Create a scene where the foreground element is significant to the story. For example, have a photograph of a man's family in the foreground while he's talking about them.

Try using the foreground object as a pivot point: start on the object and move the camera to show the full scene, or start on the background and move the camera to bring the foreground object into view. If the foreground object is a moving object such as a car, have it move into position.

# REVEALS

## Technique

**Film a scene, and at the end reveal something that changes the meaning of the scene or adds significant new information.**

The reveal is a powerful technique that puts the viewer off balance and keeps them watching closely. For dramatic pieces, particularly thrillers or mysteries, the reveal is often used to add menace or to spring a plot twist: for example, we see two people talking, and at the end the reveal shows a hidden observer watching their conversation, or there's a body on the floor at their feet, or we see the contents of a document they have been discussing. In comedy, this can act as the punchline to a gag when we see that the context isn't as expected.

The reveal relies on a change in framing: the viewer is shown a scene, and then is shown the same thing from a different viewpoint, which adds extra information.



*A fairly simple two-stage reveal. First, we see a couple kissing. Next, the camera pulls out and we see that she is in her underwear. We are also now looking through a window, which implies that they are being observed. Finally, the camera shows us the man outside watching them. We still can't see his face, so we don't yet know who he is or how he is reacting to what he sees.*

Use a scene in a single location – either interior or exterior. Ideally, it should be 1-2 minutes long, including 2 or more people. This works best with dialog scenes.

# REVEALS

Film the scene and at the end, reveal the thing you haven't been telling the viewer.

## Review

Get a friend to watch the scene – you can't spring a surprise on yourself! Then ask your friend for their reaction.

Was the reveal predictable?

How did the reveal change the scene?

Also review it yourself:

How does music affect the reveal - how can you use it to emphasize it or distract the viewer?

What other ways could you have used to reveal the same thing?

## Follow-up exercises

Sometimes the reveal can be effective if done early. Try revealing the hidden item part-way through the scene, and see how this changes the viewer's perception of the second half of the scene.

Try doing the reveal in two or more stages; for example, show a shadowy figure watching at first, but only at the end of the scene reveal who it is. Ask your viewer at what point they guessed the truth. If you can achieve misdirection and they get it wrong, so much the better!

Film the scene without using the reveal at all – just put the viewer in the picture to start with, and see how that affects the scene. This is classic Hitchcockian technique, using suspense rather than surprise.

Experiment with the different feels you get if you pull the camera out or pan it to create the reveal versus a simple cut to the revealed object or reframe. Or else try a reveal where a character steps out of the way to show something they have been obscuring.

A very tricky technique is the implied reveal where you cut to something that isn't there. For example, end on a shot that suggests someone could have been watching, but without showing them. Or if the dialog is about an object, cut to show that it is missing. This requires great subtlety.

# POV SHOTS

## Technique

**Film a sequence, or part of a sequence as if from the point of view (POV) of a specific character.**

POV shots are a useful tool for filmmakers. They help the viewer identify with a particular character by literally allowing them to see through their eyes. They are also very useful for reveals: the viewer may not know who a character is, and cannot see their face or what they are doing.

Modern viewers are used to POV shots from videogames, but it rarely works if you try and emulate this style, particularly in action sequences. However, POV can be used effectively in many other situations. One classic example, which we will use below, is a stalker furtively following a victim. In an adventure story, when the hero enters a new location, you can use a POV shot to suggest him looking around. Even in conversations and drama, you can use POV to show what a specific character is seeing; this is one step more intimate than an over the shoulder shot.



*Continuing the scene from the previous exercise, these two shots are an alternate way to tell the viewer that the couple are being watched. The camera is in the same position as the watcher in the previous exercise. Looking at the camera implies that there is someone there to see, so the viewer knows this is a POV shot, not just a neat composition. Ducking the camera further down into the bushes suggests that the watcher is hiding. If you move quickly between these two shots, it suggests that the watcher is trying to avoid being spotted or identified.*

Create a set with a suitable hiding place (parked cars, an alleyway, bushes, etc) and two characters.

# POV SHOTS

Have one character walk through the set while the other one watches them from hiding. Film it with the viewer able to see both characters, then film it again using POV shots. For added tension, have the victim stop and look back as though they are aware they are being followed, and show the watcher's reaction.

## Review

How does the POV shot make you feel?

Does it feel artificial or forced?

Does the scene work better with the POV shot or the standard shot?

How effectively can you mix POV with other shots?

What effect does music and sound have on the scene?

## Follow-up exercises

Complicate the process by having the watcher move, instead of a static POV.

Continue the scene so that we find out who the watcher is at the end of the scene.

Try some of the other scenarios mentioned above.

# IMPLIED VS SEEN

## Technique

**Film a scene so that the viewer perceives much more than you actually show. Use shadows, reaction shots, or sounds to make the viewer imagine what you want them to see.**

For various reasons you may not wish to show something on screen, but still have it part of the story. This may be for budget or technical reasons (you can't actually get the shot you want), for ratings reasons (you can't show what you want), or artistic reasons (you want the viewer to be looking at something else).

When done well, the viewer may not even realize they haven't seen what they think they've seen. A classic example is the end of *Rosemary's Baby*. Most people are shocked by the powerful shot at the end where we see the baby in its crib with horns. However – and check this out if you don't believe me – the shot isn't there. We see people looking into the crib, and we see their horrified reaction, but the actual baby is never actually shown. This is masterful filmmaking by Polanski.



*Left: two people talking about something. We need not actually see the dead body on the floor to know what they are talking about. Right: the woman is obviously seeing something disturbing. The guard's description or the sound of something happening off screen, combined with her expression, may be sufficient to convey the sense of disgust and horror.*

Use a scene with a dramatic moment in. Ideally, it should be under 1 minute long. You can use either an action or a dialog scene, as they will give you different challenges.

# IMPLIED VS SEEN

Film the scene and show the key moment on-screen.

Film the scene without showing the actual key moment. Do not use dialog to explain what's happening off-screen, just let the viewer work it out.

## Review

Which version do you prefer?

What was on-screen at the key moment? Why did you pick that?

Does the scene gain or lose anything by not seeing the important moment?

What did you do differently in terms of lighting, staging, etc?

How does music or sound affect the viewer's perception of the scene? Does it change their perception of the characters?

## Follow-up exercises

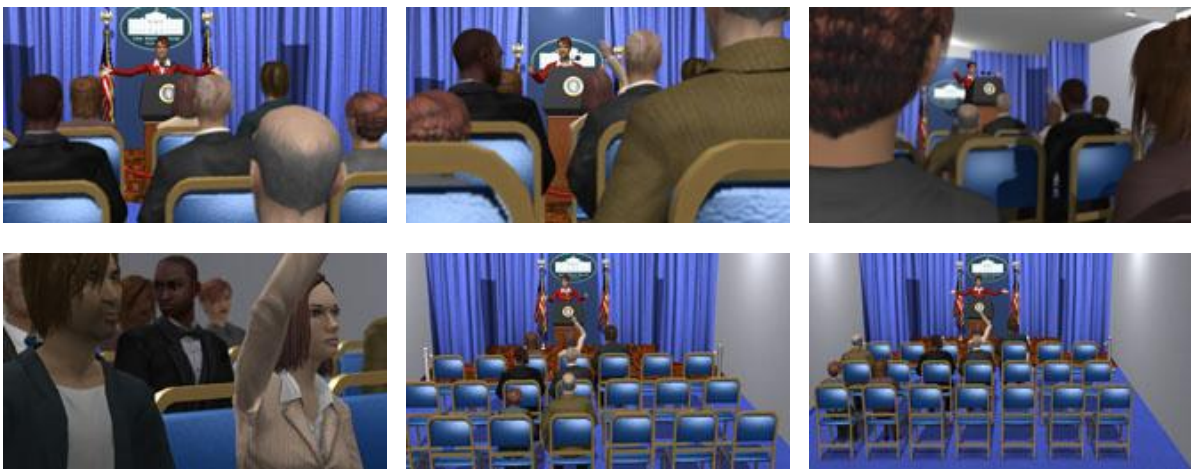
Can you completely change the meaning of the scene without changing the script? For example, focusing on a different character at the cutaway point, or using different music?

# THE CROWD ILLUSION

## Technique

**Imply a large crowd with only a small number of extras.**

Budgets don't always allow you to have as big a crowd as you would like. Even in animation, a big crowd can be time-consuming and tedious, and a CG crowd may not be an option, so sometimes it's better to fake it with clever camerawork and good use of extra. This can be surprisingly effective: in early episodes of the series *Sharpe*, they filmed large Napoleonic battles using no more than 25 extras and a lot of smoke.



*Upper row, the more you push the camera down into the crowd, the more people there appear to be. There are only seven people in the audience, set out as in the bottom center. To add extra depth, use reaction shots such as the one lower left - these need not be important characters, just extras. The audience has been rearranged so that there are more people off to one side for this reaction shot, as bottom right. The viewer will probably never notice that the same people are in different places in the two shots. Use focus to blur out the crowd in either the background or foreground as appropriate so they look more like a mass of people and less like a small group of individuals.*

Use a scene in a single location – interior or exterior. Ideally, it should be 1-2 minutes long. You can do it with a single protagonist plus a small number of extras – restrict yourself to no more than 20 for this exercise, and if you can do it with less, so much the better! You can use either an action or a dialog scene, as they will give you different challenges.

# THE CROWD ILLUSION

Film the scene, and make it look as though the crowd is larger than it is. Use sound and carefully-chosen camera angles to achieve the effect. Fake it if necessary, for example by having the same people run past the same spot several times, or use a blurred, fast-moving camera in the middle of the action to suggest a documentary 'thick of the action' feel.

## Review

Does it look convincing enough? If not, why not?

How does sound affect the perceived size of the crowd?

How much time are you focusing on the crowd, and how much on the main character?

How are you using the set to best effect?

How can you make the viewer think they've seen something they haven't?

## Follow-up exercises

How small can you make your crowd and still get an acceptable result?

Shoot it again with a bigger crowd. What difference does that make?

# CONSTRAINTS ON NUMBER OF CAMERAS

## Technique

**Shoot & edit the same scene assuming two different types of camera set-up: once using two simultaneous cameras as if it were a TV studio, and once allowing several set-ups as if it were a film set.**

For various reasons, you may be constrained in the way you shoot a scene. While it may be preferable artistically to pick the ideal camera angle and lighting for each shot, it may not always be possible to do this. This exercise simulates that type of constraint.



*All these are perfectly good shots from a family drama scene and will cut together well. If you were shooting a film and had no time constraints, you could use all of them. If you were shooting TV, or had only limited time on set, which two or three would you use?*

Use a scene in a single location - interior or exterior. Ideally, it should be about 2 minutes long, including 2 or more people, and plenty of dialog. You can use an action scene if you prefer, as this will give you different challenges.

# CONSTRAINTS ON NUMBER OF CAMERAS

Shoot the scene and edit it as if you have two cameras running at the same time. Don't move one camera into a position where it would be seen by the other camera - so create close-ups using zooms rather than dollying in, or get the actor to step into shot. Avoid using extreme high or low angle shots as much as possible, and try to stick to a standard height. You can move the inactive camera between shots, but keep it realistic - if you're only cutting away to Camera Two for three seconds, you can't move Camera One more than a few feet.

You'll probably end up with something that consists mostly of fairly static shots, typically medium or long, with a few close-ups all from similar angles.

The easiest way to set this up in Moviestorm is to create two camera streams, and don't use jumps on either, just moves. Do all your editing in the cutting room. Look at the director's view and see where the cameras are on the set, and how fast they're moving, and adjust if you've been too generous to yourself.

Now shoot and edit the scene any way you want. Use a mixture of close-ups and long shots, moving and static cameras, and as many camera positions as you need. Adjust the lighting for each shot if you want to. Change the positions of the actors if you like, and even change the choreography completely - do whatever it takes to get the best shots by staging the scene some other way. Cheat if you need to - there's no need to maintain continuity between shots, as long as you maintain *apparent* continuity.

## Review

Which version do you like better, and why?

Does the scene lose anything by using fewer camera set-ups? In particular, did you lose any story or emotional elements that you were able to bring out by using more cameras?

What did you have to do differently in order to get the extra shots? Different choreography, lighting, and so on? Did it end up the same length?

Look at some selected stills. How was your visual composition affected? When you had more freedom, did you find yourself using more over the shoulder shots, or different framing, for example?

Work out a rough shooting script and figure out how many camera setups you actually used in your extended version. How much would it have added to the production time (and budget, if you feel so inclined) to get those additional camera setups?

## Follow-up exercises

How much difference does it make if you allow yourself three cameras?

Can you do the entire scene in a single continuous shot with just one camera?

# ABOUT MOVIESTORM

Moviestorm is a low-cost, easy-to-use animation tool. It's not like other animation tools though – it's more of a virtual film studio. Controlling it is much like playing a game – if you're familiar with *The Sims*, you'll be able to use Moviestorm right away.

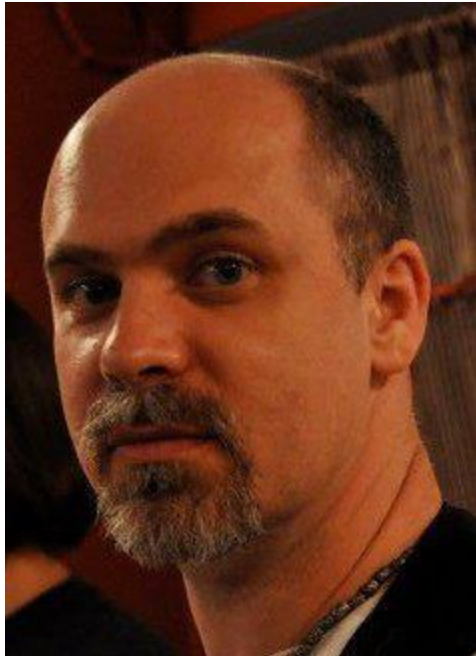
I've been part of the development team for Moviestorm since the beginning, along with my long-time friend and collaborator, Dave Lloyd. It grew out of our desire to make insanely ambitious movies despite having no budget, no kit, and no training. We realized that animation was the way to go, but neither of us knew anything about 3D modeling or 3D animation. We just wanted to direct movies. So we decided to build a tool that would allow us to do that. It doesn't create movies that rival the visual quality of Pixar or Dreamworks, but we never expected it to. Those kind of movies take huge budgets and thousands of hours of rendering time on expensive kit with large teams of highly trained artists. We wanted something quick and easy that we could use working solo on our home computers – even a \$300 bargain laptop. We've started to think of Moviestorm as a film sketching tool – it's fast, it's versatile, and you can get your ideas across very economically.

Along the way, we realized that Moviestorm could be used for more than just making ultra-cheap movies. We're now seeing people around the world using it for pre-visualization on professional productions, in classrooms, for business presentations, and to help teach filmmaking.

You can get Moviestorm for Windows or Mac from <http://www.moviestorm.net>



*Moviestorm screenshots: set building, directing, editing*



*Matt Kelland is one of the founders of Moviestorm. He's also founded several other companies, including one of the first ISPs in Britain way back in the early 90s, one of the first mobile phone games companies, a digital & transmedia publishing house based in Los Angeles, and an events promotion company in Orlando, Florida. Matt has also written or contributed to several books, designed computer, board and card games, and has had his animations shown at film festivals around the world, including Sundance. He now lives in Orlando, and spends his free time cooking, listening to local blues bands, and avoiding the theme parks as much as possible.*

*He blogs, irreverently, on a range of topics, occasionally including films, at <http://mattkelland.blogspot.com>*