CHAPTER

2

Narrative storytelling in cine-VR

So, what makes cine-VR so new and different? Certainly, it plays off of the strengths of other arts – relying heavily on performance and location; imagery and sound. At the same time, it flies in the face of long-established expectations and norms – removing any sort of visual frame or expected stage; immersing its audience in a world, yet limiting their ability to interact in the same way we interact with video games.

Before we get too philosophical about the theoretical impact of this new medium, let's walk through some fundamental concepts unique to narrative cine-VR. With any new medium, it is important to discover its possibilities and

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to label them. Artists and practitioners need a shorthand so they can order their thoughts and communicate efficiently.

Working with filmmaker Josh Crook (Photo 2.0), we have begun to identify a variety of approaches and techniques to create a cine-VR lexicon. Josh's research as an MFA student in the Communication Media Arts program has played an important role in establishing many of these fundamental concepts.

Award winning filmmaker, Josh Crook, has directed a dozen feature films and just as many television episodes. His work has premiered at Sundance and TIFF. Building upon this career, Mr. Crook is now creating innovative work in cine-VR having recently completed his MFA in Communication Media Arts at Ohio University.

Gravity

One fundamental concept of cine-VR is the idea of gravity. In a 360° scene, everything revolves around the camera. The camera is the center point and as the scene progresses, the more important aspects of the scene should be drawn towards the camera as if it were the center of gravity. A cine-VR director will block actors in ways that are similar, yet different from both film and theater. As an example, Photo 2.1 shows a frame from the 1940 classic, *His Girl Friday*.[1] Notice how the characters are blocked to illustrate their various relationships

Photo 2.1 Rosalind Russell and supporting actors in *His Girl Friday*, 1940

Cinematographer: Joseph Walker

Photo 2.2 Theoretical cine-VR camera position in *His Girl Friday*, 1940

Cinematographer: Joseph Walker

with one another, and how they are staged to the camera so that everyone can be seen. This blocking allows the frame to guide the eye.

Lines, light and balance focus our attention on Hildy (played by Rosalind Russell) because the director (Howard Hawks) has staged the scene for the camera. But in cine-VR, you are the camera and you are part of the scene (Photo 2.2) – or at least that's an option for the cine-VR storytellers. However, if the audience is now sitting at the table, the man behind the chair can no longer be seen and half the room (where Hawks and his crew had placed the camera and the lights) can now be seen. This calls for a fundamental realignment of how we conceptualize blocking.

There is no longer an "upstage" or "downstage", stage right or stage left – because there is no audience to play to. Nor is there a camera in the sense of creating a specific frame. In fact, there is no frame. The audience is on the stage, free to look wherever they want. If *His Girl Friday* were a cine-VR story, in all likelihood you wouldn't watch Hildy and the reporters track down a story from a distant third person POV. Instead, you might be one of the reporters at the table with Hildy – with the other reporters circling around you like sharks.

A key tool to reconceptualize blocking in a 360° space is gravity. If you can imagine the camera at the center of four concentric circles, then you've visualized the four relational layers that are built into any given scene. We remember these layers by calling them the "I-N-F-O orbits": Inner, Near, Far and Outer orbits (Figure 2.1).

Inner orbit

When a character or prop is within 2–5 feet from the camera, they are in the inner orbit for that scene. The audience will be able to recognize detail on the prop and read emotions on the character's face.
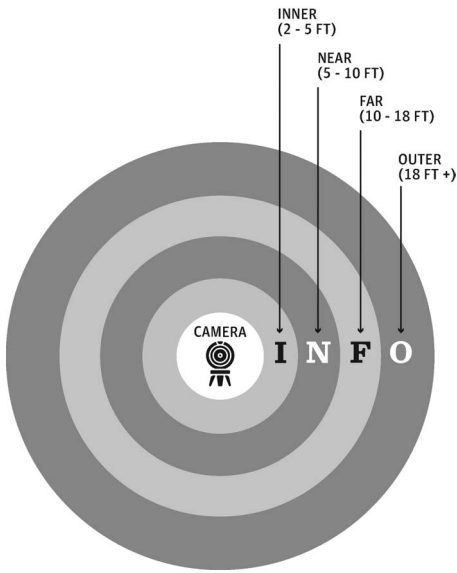
Figure 2.1 Gravity's I-N-F-O orbits

Near orbit

When a character or prop is within 5–10 feet from the camera, the audience will have a near orbital relationship with them. The characters in this orbit will command attention, and the audience will notice the props.

Far orbit

When a character is within 10–18 feet from the camera, they are recognized by the audience as someone that may be important to the story, but full attention is not yet given. Props will need to be large or highlighted in some way to be recognized in this orbit.

Outer orbit

When a character or prop is beyond 18 feet from the camera, there are typically ignored by the audience – unless they are the only character in the scene. Props in the outer orbit are typically ignored.

Knowing the I-N-F-O orbits of cine-VR allows you to more easily conceptualize the camera placement for the scene. Imagine that you are writing a scene in a small bedroom with a bed on one end and a small couch and chair on the other. Camera placement will emphasize each area differently (Figure 2.2).

> To see some GRID Lab examples of how gravity can be used to direct dynamic scenes, access the Vimeo link at the end of the chapter and watch:
>
> - Destiny – Lamaze
> - Evening Ritual
> - He Loves Me (not)

Newton vs. Copernicus

The next aspect of gravity to consider is how you intend your cine-VR story to be viewed by the audience. This is an important concept, one that many cine-VR directors don't consider.
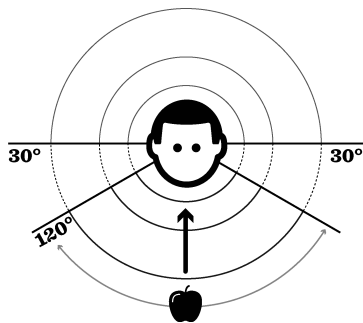
Crook insists that his work be viewed in a stationary chair – not a swivel chair or standing up. This is an approach we call "The Newton", after Sir Isaac
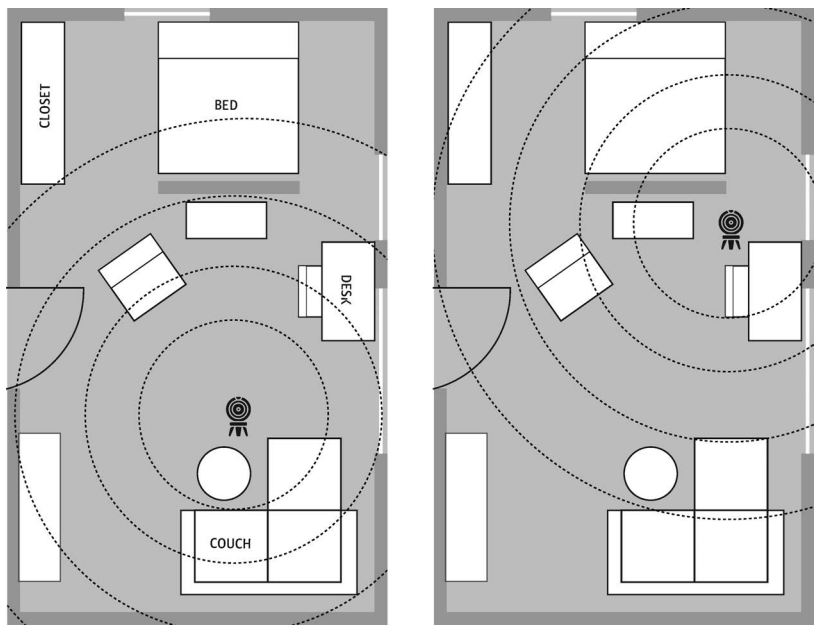
Figure 2.2 Two options for camera placement in a bedroom scene

Newton, the mathematician whose seminal ideas on gravity were supposedly inspired by being struck on the head by an apple. In this story, Newton was stationary, and the apple came to him (because of gravity).

Crook likes this approach because it gives the director more control over the scene. While the scene may be shot in 360°, by placing the audience in a static chair (and thereby restricting their movement) the scene is now confined essentially to a 120°–180° field of view unless the audience makes a concerted effort to turn around (Figure 2.3). While turning around in a static chair is possible, Crook believes that most audiences will fight the urge, and instead will settle into a relatively "face-forward" experience.

The Copernicus approach is the opposite. Nicolaus Copernicus, also a mathematician and astronomer, is credited for correctly modeling the universe with the sun at its center and the planets revolving around it.

The Copernicus approach is based on the idea that the viewer will be seated in a swivel chair (or standing) so they may choose to look in any direction at any time. The audience is the sun, and the scene revolves around them like the planets. The audience has complete freedom to twist and look in any direction.

Figure 2.3 The Newton approach encourages a consistent 120° FoV

The choice of whether to use the Newton approach or the Copernicus approach illustrates one of the most significant aspects of cine-VR: agency vs. control.

Agency vs. control

In literature, film and theater, the audience relinquishes control of their bodies, their emotions and their intellectual curiosity. The story is provided to them. The story is controlled. This does not mean that there is no emotion or intellectual curiosity. No, it means that the emotions are controlled. Sad music is added to cue the audience to feel sad. A spotlight is used to guide the audience's attention to a specific character. The author goes into detail to guide our intellect in a certain direction. In literature, film and theater, the audience's every move is, for the most part, controlled.

To use a mnemonic device, we can say that the crew creates control. A film crew or a theatrical crew controls the blocking, the lights, the sound design and the set construction in film and theater.

Agency on the other hand, provides choice to the audience. For instance, in video games, we as an audience are more aware of ourselves. We control our bodies and our gaze. We choose what to watch and where to go. Through these physical choices, we thereby choose to pay attention intellectually and emotionally. The same is true for painting, especially in an art gallery. We can linger as we wish on a painting that ignites the feeling of love, just as we can walk away from images that scare us (or vice versa). Intellectually, we can choose what to pay attention to and when to pay attention to it. In a game, if we want to inspect the details found on the desk, we can. Or we can choose to ignore these details. Intellectual and emotional choice is given to the audience by providing physical choice within the story. This innate ability to make choices that affect how we experience the story is known as "agency".

To use another mnemonic device, we can say that the audience provides agency. As an illustration, we can say that in cine-VR, the crew controls the character blocking but the audience has agency to watch one character instead of another.

In cine-VR, there is a fundamental tension between what the storytellers control and how the audience uses their agency within the story. So, it would be safe to say:

- In every medium, the crew controls the story during its creation.
- In cine-VR, the audience has agency while the story is being experienced.

Within any given story, the audience can be affected physically, emotionally and intellectually. Therefore, to fully understand how story works for cine-VR, we need to keep six concepts in mind as they pertain to agency and control:

Agency consists of choices made by the audience while the story is being experienced. There are three forms of agency for the audience:

1. **Directorial agency:** choosing where to look during the story.
2. **Emotional agency:** choosing who to connect with during the story, how those connections should make them feel, and when those feelings should occur.
3. **Intellectual agency:** choosing what to pay attention to during the story.

Control is used during the development and creation of the story. The audience does not have control. The audience has agency. Just as there are three forms of agency for the audience, there are three forms of control for cine-VR storytellers:

1. **Directorial control:** forcing the audience where to look during the story.
2. **Emotional control:** guiding the audience to connect with specific characters, in order to feel a certain way at a specific moment during the story.
3. **Intellectual control:** insisting that the audience pay attention to specific details in a specific order, or at a particular moment during the story.

Because cine-VR tells stories linearly (as opposed to games or enjoying art in a gallery) a unique tension is created between these three dichotomies of control and agency.

Directorial agency vs. directorial control

It may seem as if there is no agency in cine-VR as "the story" plays out linearly and has (seemingly) been pre-determined. However, this observation reeks of cinematic and theatrical influence. True, cine-VR does not provide the same level of agency that a video games might, but it has agency none-the-less.

Consider this: since cine-VR is a 360° image, and since it is impossible for any one person to view the entire 360° space simultaneously, then if two people watch a cine-VR experience, it is unlikely that they will both see the exact same piece. In fact, it's unlikely that *anyone* will have the exact same experience in cine-VR. Each time, we choose different things to observe, or observe them a different order. Therefore, each experience is unique.

And if each experience is unique, then the choices the audience makes while in cine-VR affect their outcome. In essence, each person crafts their own experiences by the choices they make regarding what to watch and when to watch it. If the audience's choices affect their outcome, then there is agency.

Some may ask, how can there be agency without an interface? Once you're inside the headset, cine-VR (for the most part) has no buttons, no menus, no maps – at least none that control the outcome. Yes, some cine-VR directors are experimenting with branching narratives, but the scenes themselves are linear. Yet, we would argue that cine-VR does indeed have an interface: you. You are the interface. The turn of your head dictates choice and influences the information that is delivered to you. This is what makes cine-VR unique. You

are determining what to watch. You are directing the attention of the story as it unfolds in front of you. You are the director of your own story. Cine-VR has provided you with "directorial agency".

An old film adage states that the story in a film is "written" three different times: once by the screenwriter, a second time by the director on set, and a third time when the film is being edited. In cine-VR, the story is "written" a fourth time: by the audience when they are experiencing the story. The more agency that an audience has, the more power they have to "write" their own story.

With this distinction between directorial control and directorial agency in mind, perhaps we can more clearly analyze Crook's choice of a Newton approach (remember: the crew had control, the audience has agency). Crook's background is firmly rooted in feature filmmaking (a medium with no directorial agency but plenty of directorial control). Therefore, Crook prefers an approach that limits agency. Crook wants to maintain as much directorial control as possible. The Newton allows him to do that.

Those that choose the Copernicus approach bend the other way. Again, consider *His Girl Friday* as a cine-VR experience (Photo 2.3). Crook might choose to place the camera in position "A" (adding a character to the table). If he chooses a Newton approach, then he could block the entire scene similarly to the way Hawkes directed it – thereby reducing directorial agency and increasing directorial control. But a director choosing a Copernicus approach might place the camera in position "B" and perhaps add a character to position "A". This camera scenario would increase the directorial agency for the audience, allowing them multiple characters to follow and different areas of the scene to watch. The camera placement combined with gravitational blocking elicits choice, and choice creates agency.

Photo 2.3 Newton and Copernicus options in *His Girl Friday*, 1940

Cinematographer: Joseph Walker

To see some GRID Lab examples of how agency can be used to build dynamic experiences, access the Vimeo link at the end of the chapter and watch:

- Lost Broken Alone
- Lula Mae – Many Roles
- Lula Mae – Family Dinner

Emotional agency vs. emotional control

Emotional agency is borne from directorial agency. To understand their nuanced connection, it's important to first distinguish the difference between primary emotions and secondary emotions.

According to Williams, primary emotions are the feelings *that a character has* in a story.[2] If the hero is battling a monster, then the hero may be experiencing the primary emotion of fear. Secondary emotions are the feelings *that the audience has* while enjoying the story. If we find the monster to be scary, then we too might feel fear. We are scared for the hero. But what if the hero is tilting at windmills? Don Quixote thought he was fighting monsters, so the audience understands that the primary emotion is fear.[3] But the readers also know that Don is only fighting windmills, and so their secondary emotion may be sadness. We might feel bad for the hero who is slipping his grip on reality.

The distinction between primary and secondary emotions exists as a result of the story being told to us by a storyteller. If you're at a party and a fight breaks out, there are no "primary emotions" and "secondary emotions". There are just emotions: my emotions and other people's emotions. In a story though, it's different.

In a story, primary and secondary emotions are both specifically crafted by the person telling the story. We are guided toward an understanding of the hero's emotions (and our own) by a truth that is dictated to us.

Primary emotions: Cervantes leads us to understand what Don Quixote is feeling by describing his perception of monsters (fear).

Secondary emotions: Our own feelings are also based upon information that Cervantes has provided; namely that Don Quixote is not fighting monsters – he's tilting at windmills (perhaps we feel a sense of unease?).

As another example, in a famous Gentileschi painting (Photo 2.4) we immediately recognize three primary emotions:

1. Terror and surprise felt by the man being beheaded
2. Anger and trepidation felt by the woman committing the murder
3. Determination felt by the murderer's assistant

Our secondary emotions are evoked by knowing the title of the piece: *Judith Slaying Holofernes*, which helps us to recognize this as the story of a young

Photo 2.4 Gentileschi's painting *Judith Slaying Holofernes*

woman (Judith) who has been summoned for a seductive evening in a general's tent. Instead, Judith (and her handmaid) kill the general (Holofernes) in order to save their village from attack the next morning. In this instance, we may feel relief as our secondary emotion – relief that Judith has saved her village from attack.

The juxtaposition of primary and secondary emotions in most media is nothing more than a parlor trick disguised to make the audience feel as if they have control over their emotions – when in fact, they don't. This applies to most media where the audience's emotions are crafted by the author of the novel; the director of the play; the designer of the game; or the painter of the work of art.

The storyteller controls your secondary emotions just as much as they control the primary emotions of the character. Gentileschi painted the fear on Holofernes' face just as surely as he knew that you would feel sympathy for a woman trying to save her family from certain death.

Cine-VR turns this dynamic on its head however, because the medium has provided directorial agency to the audience. The audience no longer feels as if the story is being *delivered to them*. Rather, they are *constructing it for themselves*. in a sense, directorial agency breaks the fourth wall between audience and emotion. Without a recognized storyteller, there is no distinction between primary emotion and secondary emotion. You are not watching the story of a party where a fight breaks out. You are simply present at the party when the fight breaks out. It is now up to the audience to decide how they want to feel – and each person might choose differently. This means that the audience now has emotional agency.

To see some GRID Lab examples of how primary and secondary emotions can be used to engage the audience, access the Vimeo link at the end of the chapter and watch:

- Destiny – Motel
- For the Love of God
- Lula Mae – Food Pantry

Intellectual agency vs. intellectual control

Intellectual agency seems to be an off-shoot of directorial and emotional agency – which only makes sense. If the audience is choosing where to look and which characters to emotionally connect with, then it only stands to reason that they would pay attention to the details connecting to and affecting those characters. This is especially true since cine-VR is a linear medium.

Consider a story where three characters are facing each other in a Mexican standoff. A traditional film approach would be to cut from one character to another – using close-ups to control and guide our intellectual curiosity from one detail to the next in a specific order. The content, and the order of the details, combined with the rhythm and framing of each shot will control the mood and emotion of the scene.

But what if the audience controlled which details to observe, and in which order? Image that you are more emotionally attached to Character A (because of the emotional agency you exercised earlier in the story). Now, during the Mexican standoff, your eyes may be glued on the details of the villain who is aiming a gun at your favorite character. You might notice every detail of the villain (the size and model of the gun, the fact that he's wearing a bullet proof vest, his boots, his hat, the bead of sweat rolling down his brow).

Using your directorial agency, you may choose to spend your intellectual energies on this one character, at the expense of the other two. Or, you may choose to quickly switch your perspective – from one character to the other, to the next – comparing and contrasting each of the three as they stand resolute in their positions. The intellectual choice is yours and yours alone. True, the cine-VR storytellers have used their intellectual control to create all of the details in the scene, but the audience is using their intellectual agency to choose certain details over others.

One aspect of the story that can significantly affect the audience's agency is the point of view the audience finds themselves when they put on a headset and enter the story.

Point of view

As we know from literature, there are three POVs from which a story can be told.

First person POV: A story being told by the main character.

Second person POV: A story about one character, told by another character.

Third person POV: A story told by a neutral, often omniscient, observer.

The same concepts have been absorbed into cine-VR, but with a twist because in cine-VR the camera so closely mimics how it would feel to be present in

a location, the experience forces the storyteller to immediately answer three specific questions:

1. Is the audience a neutral observer, or is the audience a character in the story?
2. Can the other characters see the character that the audience is playing?
3. Can the audience see their own body and, if so, how does it interact?

The answers then prescribe one of many possibilities.

GOD

The GOD point of view is a neutral, all seeing, perspective that the characters cannot see. This is the cine-VR version of third person POV. The camera can be placed anywhere, giving the audience secret insights into the characters' lives. The audience in this POV is invisible and omniscient.

GRIFFIN

In the GRIFFIN point of view, the audience is an actual character who occupies space in the scene. However, GRIFFIN doesn't have a body. If the audience looks down, all they see is the floor, but other characters act as if GRIFFIN is a person. GRIFFIN is the name of the invisible man in the H.G. Wells classic novel.[4] There are two versions of GRIFFIN.

GRIFFIN 1 is similar to a first person POV where the entire story revolves around the audience's perspective. They are front and center to the story, with people often speaking to them and perhaps even pretending to hear what they have to say.

GRIFFIN 2 is more of a second person perspective, sitting on the sidelines and watching their colleagues participate in the story.

BOD

The BOD POV is also a character – this time with a body. Meaning that when the audience looks down, they will see an actual body. Of course, this brings in other considerations such as the sex, race and physique of the body which is brought to bear through costuming.

As with GRIFFIN, a BOD 1 perspective is similar to a first person POV. They will be central to the story and characters will interact directly to BOD 1. BOD 2 maintains a second person POV, acting more as an observer than a participant. Since both BOD 1 and BOD 2 both have bodies, further distinctions are required:

Passive BOD: The body does not do anything; it simply acts as visual anchor for the audience – a prop, if you will. When we shoot a passive

BOD POV, we typically use a mannequin beneath the camera. The audience can see the body, but the body doesn't move in any meaningful way.

Active BOD: An active body will move, although it does not react to the audience's demands (yet!). When we shoot an active BOD POV, an actor's body is used. For example, if a BOD POV is at a party, the audience will see the body shake hands, hold a drink, smoke a cigarette, etc.

Combined, there are four BOD options: Active BOD 1, active BOD 2, passive BOD 1 and passive BOD 2.

DOG

Similar to anthropomorphism in literature, cine-VR can force a non-human perspective upon the audience – often for comedic or satiric purposes. We call this the DOG, in honor of Virginia Woolf's use of the technique in *Flush*.[5] But the DOG perspective does not have to be canine in nature. For instance, the camera may play the role of a hamburger, and the entire scene is played from the hamburger's POV. The DOG may or may not have "a body" that can be seen.

In the DOG, audio cues are often used to help the audience understand what they are supposed to be. For instance, the audience might hear hissing when the villain gets too close if the DOG were that of a cat.

Tying it all together

Now let's take a look at how the ideas of gravity, agency and POV can all be synthesized to conceptualize a basic cine-VR scene. For this example, we'll craft a story that all takes place in one location. While this seems to be standard practice in cine-VR these days, it doesn't have to be.

When conceptualizing a scene, you need to consider four basic elements: story, characters, props and location. For our example, let's create a climactic scene at the end of a murder mystery. A detective has called five prime suspects to a meeting, in a small apartment where the alleged murder took place.

Characters In this scene there will be five characters: DETECTIVE BLACK, three suspects (S1, S2 and S3), and the victim: SAMMY GRAPES.

Story: In this scene, six specific key beats will occur.

Beat #1 **Detective Black** welcomes the suspects, announcing that she has solved the crime and will identify the guilty party.

Beat #2 Black explains that **S1** could not have committed the murder because he is unable to operate the special GUN that killed Sammy Grapes.

Beat #3 The detective explains that **S2** didn't commit the murder because he wasn't in the apartment at the time.

Beat #4 Triumphantly, the detective declares that **S3** is the murder.

Beat #5 Suddenly, **Sammy Grapes** shows up and surprises everyone.

Props: The key prop is the GUN.

Location: The location is a small apartment with a dining table, a couch, some chairs and a fireplace. There are two entrances (one east, one west) and one bay window (north).

As part of this exercise, we should first recognize that the location is malleable. We can mold it and shape it to our needs. For instance, in Figure 2.4 you'll see three different room configurations for the scene.

Notice that each of the locations has the same external dimensions, the same exits (east and west) and the same window/balcony to the north. Different configurations of the furniture, however, allows us to consider the idea of gravity in the scene differently. It also provides different options for specific points of view. Some configurations are more open, some more confined. A cine-VR storyteller will use each configuration to their advantage, deciding how much directorial agency they want to provide.

Note: It is certainly possible to transition between POVs within a cine-VR scene. As an illustration we are only illustrating one POV. We encourage you to experiment by cutting from a GOD to GRIFFIN and back again (or any other configuration) depending on the story.
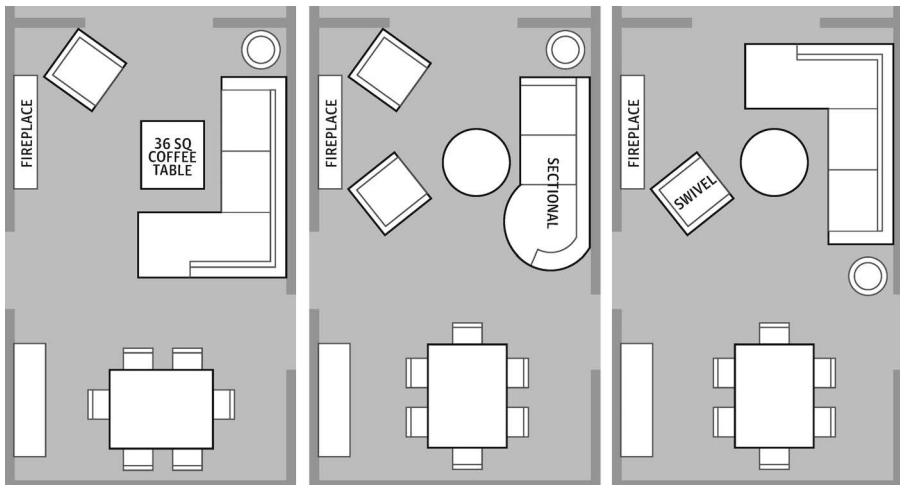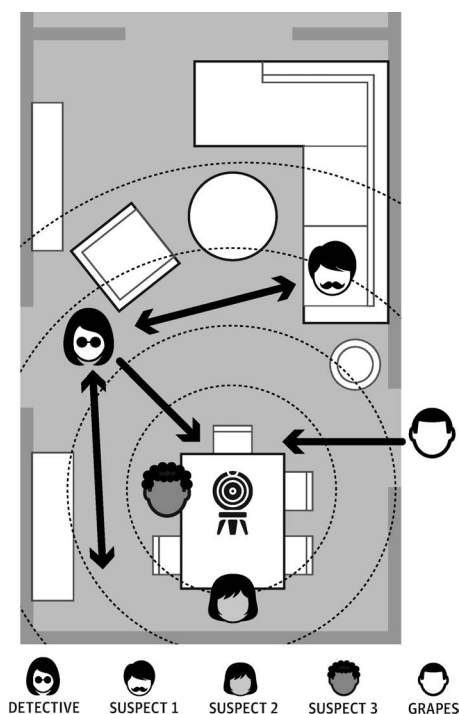

Figure 2.4 Cine-VR projects depend on adapting locations to meet the needs of the story

Copernicus GOD configuration

One possible arrangement for a Copernicus GOD configuration would be to place the camera in the center of the dining table, with the detective pacing the room (Figure 2.5). Black could place the gun on the table (in the inner orbit so the audience can examine it) as she dismisses S1's involvement. By using directorial control, we have placed the gun on the table, thereby providing the audience with the intellectual agency to choose whether or not to inspect the gun.

Notice how we placed S1 in the outer orbit – thereby limiting the audience's emotional agency to connect with that particular suspect. As the scene progresses, we will use the idea of gravity to get closer and closer to the emotion of the story. Black will address S2 (in the near orbit) before addressing S3. By the time Black accuses S3, she has seated herself at the head of the table and confronts S3 face-to-face within the inner orbit. This gives the audience the best chance to see the emotions on both characters' faces. The director has used directorial control to allow only two characters inside the inner orbit – but this still provides the audience with some form of emotional agency, as they can choose to connect more with either S2 or S3.

Notice how the scene is blocked to invite the audience to utilize the full 360° to enjoy the story. The Copernicus approach, combined with the camera placement in the middle of the action, provides the audience with maximum directorial agency. They can look northwest to see Black, northeast to see S1, and south to see S2, with the scene nearly ending on S3 due west. Then Sammy Grapes enters.

Expecting the audience to be facing west, we bring Sammy Grapes in from the east entrance to surprise and startle not only the characters, but the audience as well. Ideally, there will be a loud noise, or a shout from Sammy as he enters – using directorial control to force the audience to "whip around" in their seat to see what has happened. Sammy will quickly move from outermost orbit to innermost orbit, ending the scene with the audience's focus on Sammy Grapes.


Figure 2.5 Copernicus GOD configuration

Newton BOD 1 configuration

The Newton configuration retards directorial agency. The audience is not encouraged to turn 360°, and so the scene needs to be reconfigured if this is the approach the storyteller chooses. In a first person POV, the audience might very well be seeing the scene through the eyes of Detective Black. If this is the case, then you might choose to seat the characters around a table (Figure 2.6), with the BOD's back to the east door (we'll explain why in a moment).

Again, we'll block the characters in a way that uses gravity to bring the action closer to the camera. Once S1 is dismissed, she might leave the table and retreat to the outer orbits. S2 may sit when addressed, moving from the far orbit to the near orbit. Notice how this approach further retards directorial agency for the audience. The director is controlling the blocking in such a way that the audience is forced to pay attention to one character at a time. When that character's moment is finished, the director stages them in such a way that it's almost impossible for the audience to follow them. In this case, the directorial control of the crew limits the directorial agency of the audience.

To continue, the gun will be placed on the table by the detective, so the gun will be in the inner orbit. Because the detective is handling the gun (and we are the detective in this version of the story), the crew uses directorial control to choose a BOD POV so that the character has hands and can interact with objects.

Keep in mind, however, that the actions of the BOD are not controlled by the audience. The BOD POV will raise and lower the gun as part of the pre-recorded story. The director controls when, if and for how long the gun will be raised and lowered. This will affect the audience's intellectual agency. For instance, if the storyteller wants to reduce the intellectual agency of the audience, then the BOD will raise the gun and hold it at eye level – thereby forcing the audience to inspect the gun (in the same way a film director would use a close-up). If the gun is simply held at chest height, however, then the audience's intellectual agency is increased because they have a choice as to whether or not they want to inspect the gun. Some may choose

SUSPECT 1   SUSPECT 2   SUSPECT 3   GRAPES
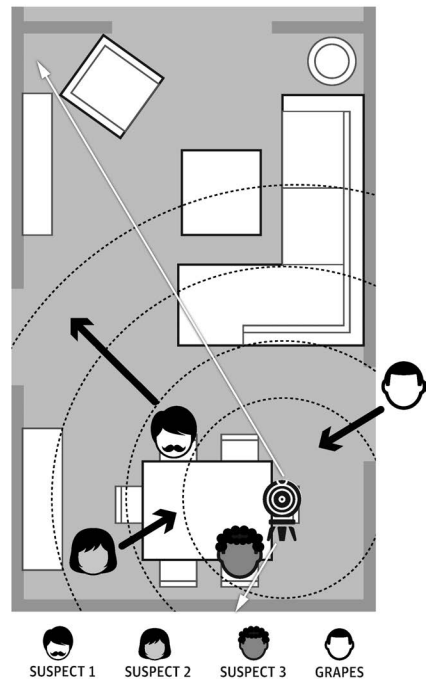
Figure 2.6 Newton BOD 1 configuration

to look at the gun, while others may choose to study the faces of the characters at the table.

The final confrontation with S3 will, again, occur in the inner orbit. Notice how – although the camera placement and furniture arrangement are different – the scene still uses the concept of gravity to progress from the outer orbits to the inner orbits.

In this example, we used the Newton with a specific moment of the scene in mind. When Sammy Grape storms in, there will be a psychological and physiological reaction for the audience. First, the audience will be forced to face southwest because of the Newton – but Sammy Grapes will enter from the northeast. This will startle the audience (a psychological effect created through directorial control). They won't be able to turn around very easily because the audience (like the detective) will be sitting in a chair and will have to crane their neck to see Grapes (the physiological effect). Ideally, this will place the audience even more strongly inside of the first-person perspective of the detective, maximizing the storytellers' emotional control to surprise the audience at the end.

Newton GRIFFIN 2 configuration

In a Newton GRIFFIN 2 configuration, it wouldn't be unreasonable for "GRIFFIN" to feel like one of the suspects gathered for the inquisition. This will provide the audience with directorial agency, as well as emotional agency. Emotionally, the audience will feel connected to the story in a more immediate way and will have the directorial agency to follow the other characters as they wish.

Notice how we chose a furniture set up that was more open, so the detective could move more freely in the space (Figure 2.7). The detective is going to guide us from orbit to orbit. She'll start on the outer cusp of the near orbit as the scene begins. The detective will use directorial control to grab our attention verbally as she addresses the group from "center stage".

Then, the detective will move to the outer orbit as she addresses S1. Unfortunately, the gun will be lost to the audience (props are difficult to see in the outer orbit). We will have to
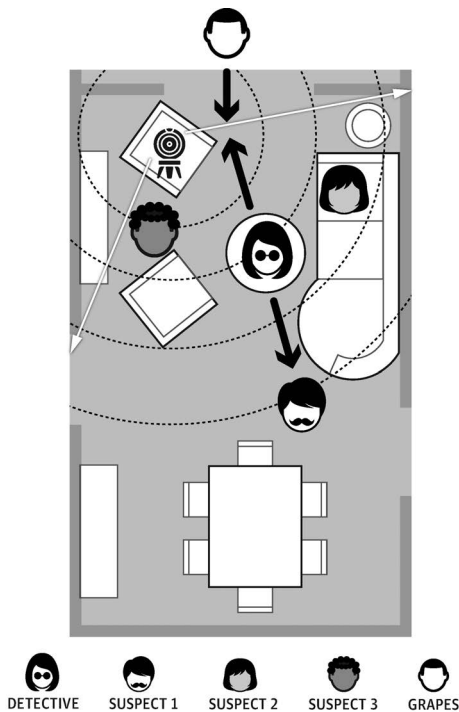

Figure 2.7 Newton GRIFFIN 2 configuration

rework the script accordingly and decide whether we want to favor intellectual control or intellectual agency.

Using gravity, we'll slowly draw the story back toward the camera. The detective will return to the outer orbit for S2's beat. Then, S3 will be confronted by the detective with both of them in near orbit. When Johnny Grapes bursts in from the north door, the detective will greet him in the inner orbit – right in front of GRIFFIN.

By placing GRIFFIN's back against the wall, we allow the audience to see as much of the room and the action as possible. Even though the audience is in a Newton, the blocking has provided more directorial agency than in the previous example. For instance, it will be difficult to keep all of the characters in view simultaneously. The audience will have to choose who to watch. Providing this sort of directorial and emotional agency requires a space that is more open so that the characters can move the audience's attention through the different orbits.

Copernicus BOD 2 configuration

A Copernicus BOD 2 configuration can also be used to "open up" the room. For instance, if BOD were seated in the center of the room, the rest of the characters can revolve around him (Figure 2.8). This sort of set up provides maximum directorial agency.

Using the same concepts as the previous examples, we might start the scene with the detective in the near orbit to command our attention. As she addresses S1, the detective would move to the outer orbit. The blocking in this scene controls the audience's view of the detective, but still provides them with emotional agency to follow the various suspects.

Despite providing directorial and emotional agency, the cine-VR storytellers can still exercise intellectual control. When the detective mentions the gun, she could actually give the gun to BOD, placing it firmly in the inner orbit and allowing the audience an opportunity to see it first-hand (so to speak). Remember: BOD is a character with real hands. As with the earlier BOD example, the storytellers could make the character raise the gun to eye level and hold it there for inspection – thereby

DETECTIVE **SUSPECT 1** **SUSPECT 2** **SUSPECT 3** **GRAPES**
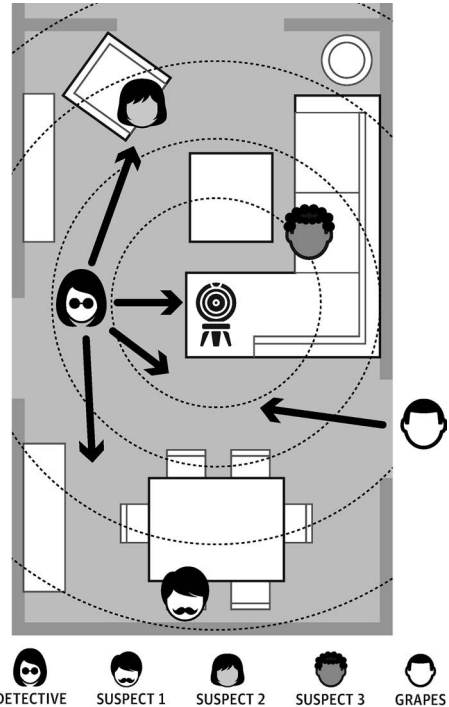
Figure 2.8 Copernicus BOD 2 configuration

maximizing intellectual control by forcing the audience to inspect the details of the gun in close up.

Returning to the scene, the director could control attention by using gravity. The detective could grab our attention verbally by addressing S2 in the far orbit. Then, moving closer, S3 would be confronted in the near orbit – sitting next to BOD. When Sammy Grapes arrives, the confrontation with the detective can again be delivered as close to BOD as needed in the inner orbit. Notice how the dialogue and blocking of the detective will suggest where the audience's attention should be focused, but the layout of the room and the staging of the suspects will still provide directorial and emotional agency for the audience.

Of course, not every scene needs to end with the characters within the inner orbit, and not every scene needs to follow the notion of gravity so explicitly. The concepts of gravity and point of view all connect on a fundamental level to help the cine-VR storytellers visualize the dynamics of each story. As we've illustrated, the decisions greatly influence the audience's sense of directorial, emotional and intellectual agency.

Coda

Agency and control are the twin doorways to a new level of artistic expression. We are just now scratching the surface of what this medium can do. Directorial agency erases the distinction between storyteller and audience, which thereby creates emotional agency by erasing the division between primary and secondary emotions.

Directorial and emotional agency allow the audience to be more intellectually curious than they normally are in most temporal media. Time creates a specific restriction in cine-VR, a factor that the audience cannot control. This, and other forms of creative and artistic controls, are the foundation of cine-VR storytellers. As we will explore in future chapters writers, directors, actors and editors have only just begun to explore this dichotomy.

We believe that the tension between audience agency and creative control is one of the key factors that makes cine-VR such an exciting new medium and vessel for new kinds of storytelling.

For examples of how techniques and ideas from this chapter have been utilized in actual cine-VR productions, please visit: https://vimeo.com/channels/cinevr (**password:** *360storytelling*).

Remember: please use a headset and headphones whenever possible.

The videos on the book's Vimeo page are broken into four categories. We would like to thank the cast and crew for all of their hard work and dedication to these projects.

Grid lab narrative experiments

(For the Love of God, He Loves Me (not), Lost Broken Alone, Moving In Moving On)

Between 2019–2020, GRID Lab student employees worked with professor Williams to push the boundaries in cine-VR narrative storytelling. Cast and crew: Beckie Brown, Savannah Copeland, Jacob Diaz, Seth Eggenschwiller, Rusty Fields, Andy Figeuroa, William Fowler, Jake Haire, Jordan Herron, Elijah Jimenez, Tabitha Kennedy, Kenzie Kress, Sammy Lahiri, Sophia Logston, Alessandra Odgen, Warren Stratton and Yiana Tjotjos.

Graduate student projects

(*Bottle's Journey, Walking Past Abandoned Houses, Weekend Ritual*)

Graduate students from the MFA in Communication Media Arts and the MFA in Film programs produce a wide variety to inventive pieces in their courses and as thesis projects. Cast and crew: Andrew Brite, Barbara Costas-Biggs, Scott Cottle, Jordan Herron, Kaitland Hickman, Anastasiia Kulikalova, Sammy Lahiri, Terrance Reimer, Ryan Gregory Tallman, and Megan Westervelt.

Grant funded projects

(*Lula Mae* and *Destiny*)

The GRID lab is sharing a variety of scenes from two large projects from 2019, produced, shot, co-written and co-edited by Williams, Love and Love. The crew: Sarah Adkins, Bryget Anderson, Carrie Arnold, Lori Austin, Alex Bailey, Darlene Berryman, Liz Beverly, Merri Biechler, Kelsea Bolin, John Bowditch, Doug Bowie, Christina Brosovich, J Raymond Bryars, Hannah Buell, Emily Chapman, Gary Chleboun, Karie Cook, Josh Crook, Shawn Cutright vMichelle David vSamantha Devore vSebastian Diaz, Ying Ding, Dakota Dunn, Alyssa Embry, Madison Ephlin, Chris Garcia, Kathleen Gardin, Nick Gardin, David Gibb vDawn Graham, Mitch Grandy, Chloee Griffith, Emily Guseman, Douglas Guseman, Savannah Heller, Deborah Henderson, Jordan Herron, Terri Hood-Brown, Yaphet Jackman, Gregory Janson, Kate Jiggins, Elijah Jimenez, Calvin Jones, Robert Kaithern, Brett Karr, Johanna Kearns, Melissa Kitrick, Lauren Klintworth, Sammy Lahiri, Steven Lee, Serena LeFevre, Leanne LeMaster, Ricky Lightner, Chip Linscott, Nicki Mazzocca, John McCarthy, Jacob Midkiff, Jake Morgan, Lexi Murray, Logan Phillips, Cody Pomeroy, Cody Prell, Audrey Reeder, Josh Reisinger, Tori Rinehart, Judi Rioch, Rosellen Roche, Nalani Rodgers, Alexa Ross, Becky Sell, Kerri Shaw, Sean Sims, James Smith III, Sean Terrell, Juan Thomassie, Ana Tomas, Bethany Truman, Inna Tsyrlin, Matthew Valdovinos, Daniel Warmke, Stacy Wright, Paige Young, and Shiji Zhou.

The cast: Courtney Abbott, Alex Amery, Josh Ben Amoz, Jim Azelvandre, Joe Balding, Jessica Beckford, Rita Bennett, Chase Brackley, Beckie Brown, Andrew Burns, Colleen Carow, Brantley Carow, Madeline Carow, Ariel Carver, Rachel Cathey, Ty Chenell Jones, Sabrena Collins, David Cosgrave, Caleb Crawford, Lori Crook, Betty Davis, Gracie Drennen, Joseph Edwards, Casiha Felt, Andy Felt, Brennan Gallagher, Emmett Girton, Sawyer Grant, Lawrence Greene, Margaret Guseman, Zach Haddox, Katherine Hammond, David Haugen, Jordan

Head, Cynthia Head, Graham Holford, Cheryl Howe, Jennifer Inks, Jill Iverson, Kaleb Jackson, Tara Jordon, Jenny Keller, Martha Klinger, Kristina Kopf, Tammy Lee, Constance Leeson, Ben Leeson, Anthony Masci, Jackson Masci, Richard Mason, Patricia McBride, Josie Merkle, Sonji Miller, Chad Moore, Autumn Mulneix, Travis Mulneix, Manda Neal, Rita Preston, Amy Richardson, Aurora Richardson, Averi Richardson, Dorian Richardson, Dorian Richardson Jr, Taelin Richardson, Shelly Riggs, Justin Rose, Deborah J. Sheskey, Margaret Sheskey, Christie Sikorski, Kelly Sikorski, Nancy Smathers, Zachary Taw, Patricia Thomas, Jaycie Williams, Lorainne Wochna, and Billy Zehnal.

Additional projects

In addition to the projects listed above, we will continue to add new narrative projects as we complete them. Thank you in advance to all the future cast and crew!

Notes

1. *His Girl Friday*, directed by Howard Hawks (1940; United States: Columbia Pictures), Film.
2. Williams, Eric R. *Screen Adaptation: Beyond the Basics* (United States: Focal Press/Taylor and Francis, 2017), p. 134–136.
3. Cervantes, Miguel de. *Don Quixote* (Spain: Francisco de Robles, 1605), Chapters 8 and 9.
4. Wells, H.G. *The Invisible Man* (United Kingdom: C. Arthur Pearson Publishing, 1897).
5. Woolf, Virginia. *Flush, A Biography* (United Kingdom: Hogarth Press, 1933).