Drawing to Plan out the Animation Process

While working on *Serpendipity*, the greatest challenge for the animation team was the Snakes. Whether you switched them from IK to FK, having them feel like they were reacting to Gordon's movements within the given space was extremely difficult. The most notable difficulty about it was trying to figure out the posing and the timing of the poses since these characters were non-human and attached to a human character's head. There had to be a process for how to tackle a shot with snakes in it.

After troubleshooting in layout, we devised a strategy to streamline the animation of the snakes. The first step was to fully animate Gordon. Whatever his acting consisted of within the shot, we had to make sure his animation was final. In times where this unfortunately wasn't the case, changing the direction of Gordon's head or the bend of his body would significantly alter the snakes' silhouettes and mess with the visual composition of the shot. It wouldn't make sense to animate the snakes at the same time as Gordon, as they often are reacting to his movements. Once Gordon's animation is done, the snakes could be put into position and animated. For a visual demonstration of posing the snakes, we'll start with the Gordon reactionary pose and the snakes already in their positions on his head.
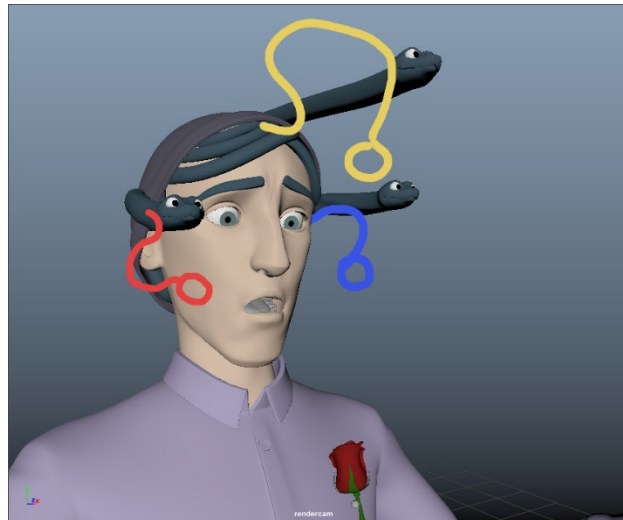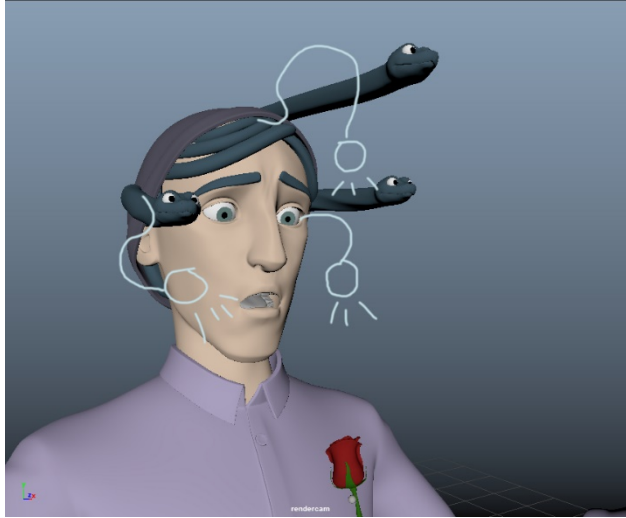
The idea behind this pose is that Gordon and the snakes notice something in front of them—maybe they were sitting at the table and then a fly lands onto Gordon's dish.

Trying to pose the snakes from the perspective camera and then glancing to the official camera

to see if the posing works would be fine but do I have an idea of how I want the snakes to be looking down? It's not like I was able to record their movement when I took reference footage. Plus I would like to keep as true to their personalities as possible. That's when I would thumbnail out the snakes' poses—mainly their emotional beats. There are several ways to do this.

If you wish to draw poses out on Maya, you can use the Grease Pencil tool. This allows you to create simple drawings or plan out how you want to go about a shot directly on the camera that you will be playblasting/rendering. Its advantage is that it lets you scrub through the timeline and immediately plan out your shot. Just make sure to have Grease Pencil turned on in the Show menu on your Viewport. Also, if the Grease Pencil starts to act finnicky or not work at all, you will have to reset it (In your Viewport, go to View > Camera Tools > Grease Pencil Option box). Another option is to take your animation playblast into a drawing software such as Photoshop and draw the key poses there. The benefit of this is the advanced control and you can even 2D animate the snakes to test how the final animation could look. A third option is to draw the thumbnail poses on Paper. This is for those who feel the most creatively inspired when drawing on paper, such as myself. I benefited from this method because I wouldn't have to switch from two different software or overload the computer's processing power. On the next page are examples of all three methods drawing out the same poses for the snakes. The main idea is to use whatever best helps you plan the motion of a character. The reference footage you record acts as a basis for animation but drawings provide the exaggeration needed to make the character more animated.

On the left is the version from the Grease Pencil in Maya, the middle was done in Photoshop, and the right one was done on paper. I even started planning the snakes' expressions on the right one. However you choose to go about this will greatly shorten the troubleshooting period of timing your animation. You can also draw arrows to indicate movement or write notes on the side.

All in all, drawing your poses will help you plan out the poses of characters or elements that are not so easy to record footage of.