

DESIGN FICTION

SCI FI FILMMAKING CURRICULUM GUIDE



DESIGN SCIENCE FICTION

A PHOTOGRAPHY AND FILMMAKING CURRICULUM GUIDE FOR MIDDLE AND HIGH SCHOOLS

SYNOPSIS:

This class will study and practice the many aspects of making a narrative film including set design, screenwriting, casting, location scouting, storyboarding, lighting, directing, acting, editing, effects, music, and marketing. Design research and Design thinking techniques will be employed by the students to ideate and create their own world in which a story takes place. Students will explore the fundamentals of composition through narrative photography. Authors like Arthur C. Clarke and Frank Herbert will be introduced as examples of futurist storytellers who imagine how technologies can shape culture. The life and work of the revolutionary filmmaker, Stanley Kubrick, will form a foundation upon which students will build their own visual style. Historically relevant film productions (Dune and 2001) will be studied in order to illustrate the filmmaking process from idea to screening. At the end of this class, students will present their finished short films at a screening event that they host and market, inviting the community at large to attend.

IN THIS CLASS STUDENTS WILL LEARN ABOUT

	PHOTOGRAPHY
	DRAWING AND PAINTING
	GRAPHIC DESIGN
	FILM PRODUCTION
	SCULPTURE
	INDUSTRIAL DESIGN
	WRITING COMPOSITION
	LITERATURE
	SCIENCE (RESEARCH)
	PERFORMING ARTS

STAGES

SC. 1

LITERATURE

SC. 2

SCREENPLAY

SC. 3

PHOTO COMPOSITION

SC. 4

PHOTO NARRATIVE

SC. 5

DESIGN FICTION

SC. 6

PRODUCTION

SC. 7

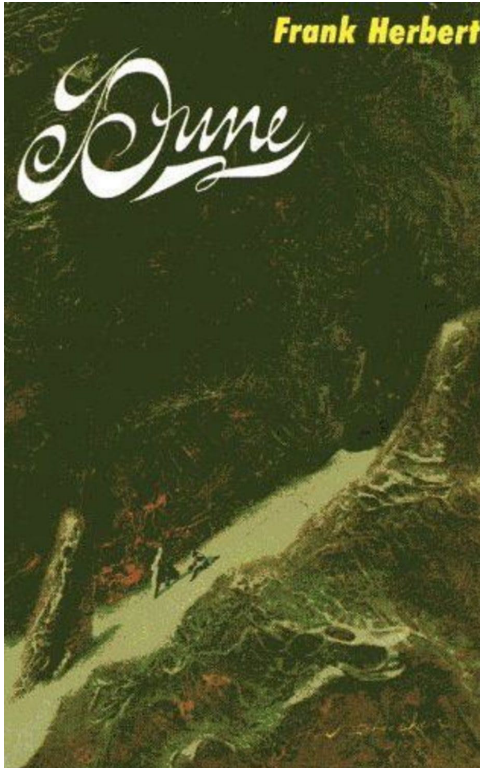
EFFECTS

SC. 8

PREMIER

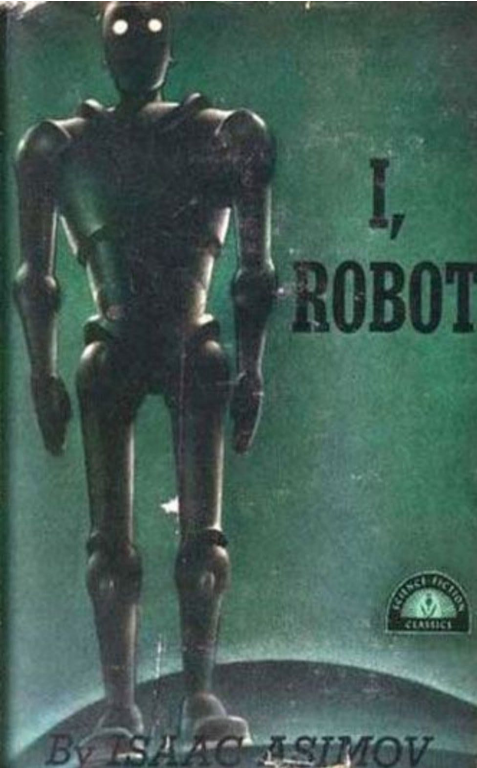
LITERATURE

Design research into the rich history of Science Fiction in writing from Mary Shelly to Ernest Cline. A nice way to present this curriculum is to ask students to find their own favorite vintage Sci-Fi book cover and submit it to my via Google Classroom. Using the projector, I can share out all of the off-beat artwork. Such evocative images my serve to spark some inspiration for a story or a design aesthetic.



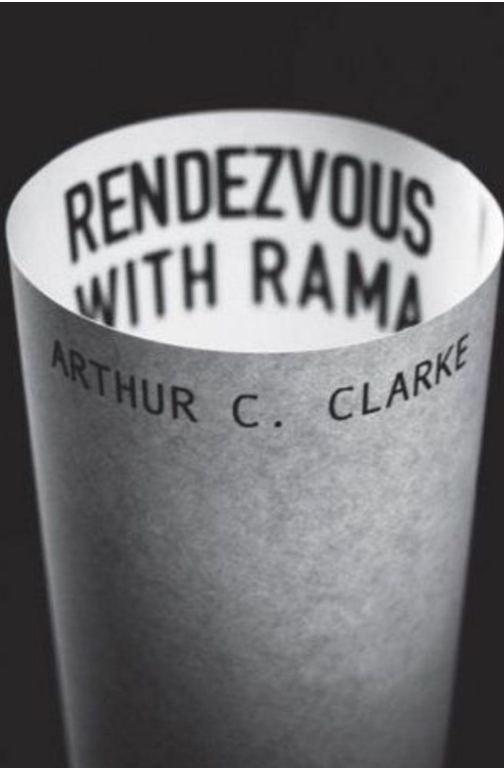
ARTIST
JOHN SCHONHERR

Like the Journey To The Centre of the Earth cover, a stark image of two tiny figures, battling through a vast landscape immediately conveys the scope of the novel beneath, that's waiting to be read and explored.



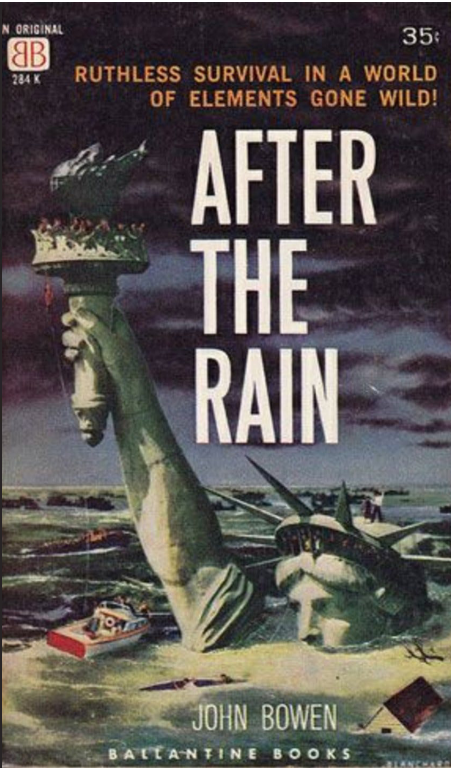
ARTIST
ED CARTIER

A hugely influential book and a brilliant cover to match; when someone says the word robot to you, this is basically the image that springs to mind - a darkly gleaming metallic body and two small, penetrating lights for eyes.



ARTIST
UNKNOWN

Taking inspiration from the book, with its tale of a cylindrical alien starship, this cover subtly hints at what lies within, with a minimalist flourish. A simple idea can make the most impactful image.

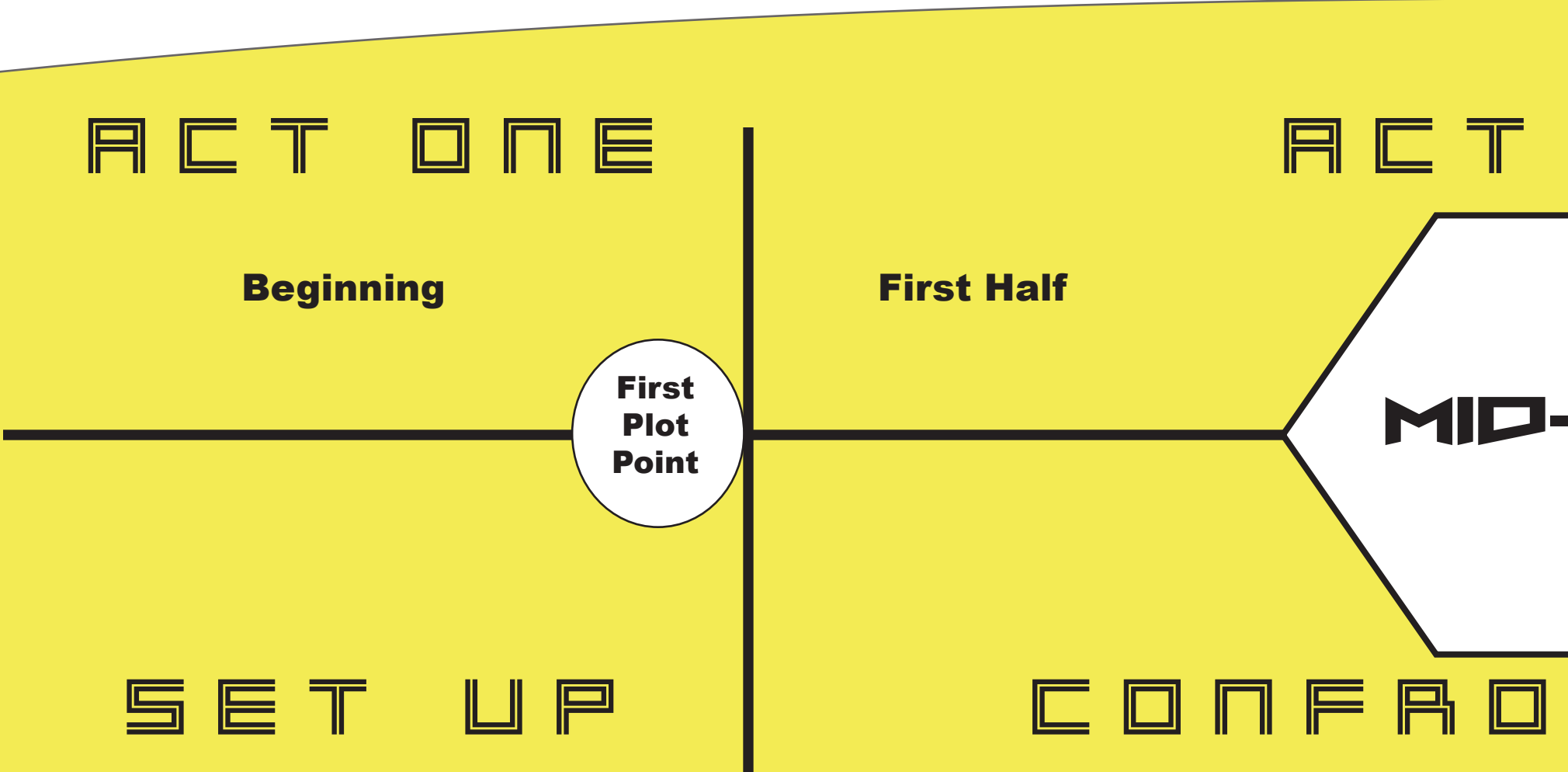


ARTIST
UNKNOWN

Copied a million times over by Hollywood disaster movies, this artwork for Bowen's 1958 novel is a classic science fiction image - a stricken Statue of Liberty with arm aloft above violent and energetic waters.

SCREENWRITING

The definitive voice in screenwriting is Syd Field. His book, Screenplay: The Foundations of Screenwriting uses a strait forward, step-by-step instructions to guid initiates through the process from ideation to production. Below is a model of narrative structure taught by Fields and utilized by professional writers. I like to to keep a few copies for my own reference and to loan to students who have a great interest in writing for film.



READING LIST

Douglas Adams:
HITCHHIKERS GUIDE TO THE GALAXY
Phillip K. Dick:
DO ANDROID DREAM OF ELECTRIC SHEEP
Arthur C. Clarke:
EQUQ: A SPACE ODYSSEY
Ernest Cline:
READY PLAYER ONE
Robert Heinlein:
STARSHIP TROOPERS
Stanislaw Lemm:
SOLARIS
Isaac Asimov:
I ROBOT
Frank Herbert:
DUNE

This early stage is a great opportunity to get chummy with the English department at your school. You might consider team teaching this first unit or asking an English teacher to make a presentation. I once traded classes with an English teacher. I gave a short talk on documentary filmmaking to a group of freshmen while she discussed Dystopian Fiction with my Photo/Film class.

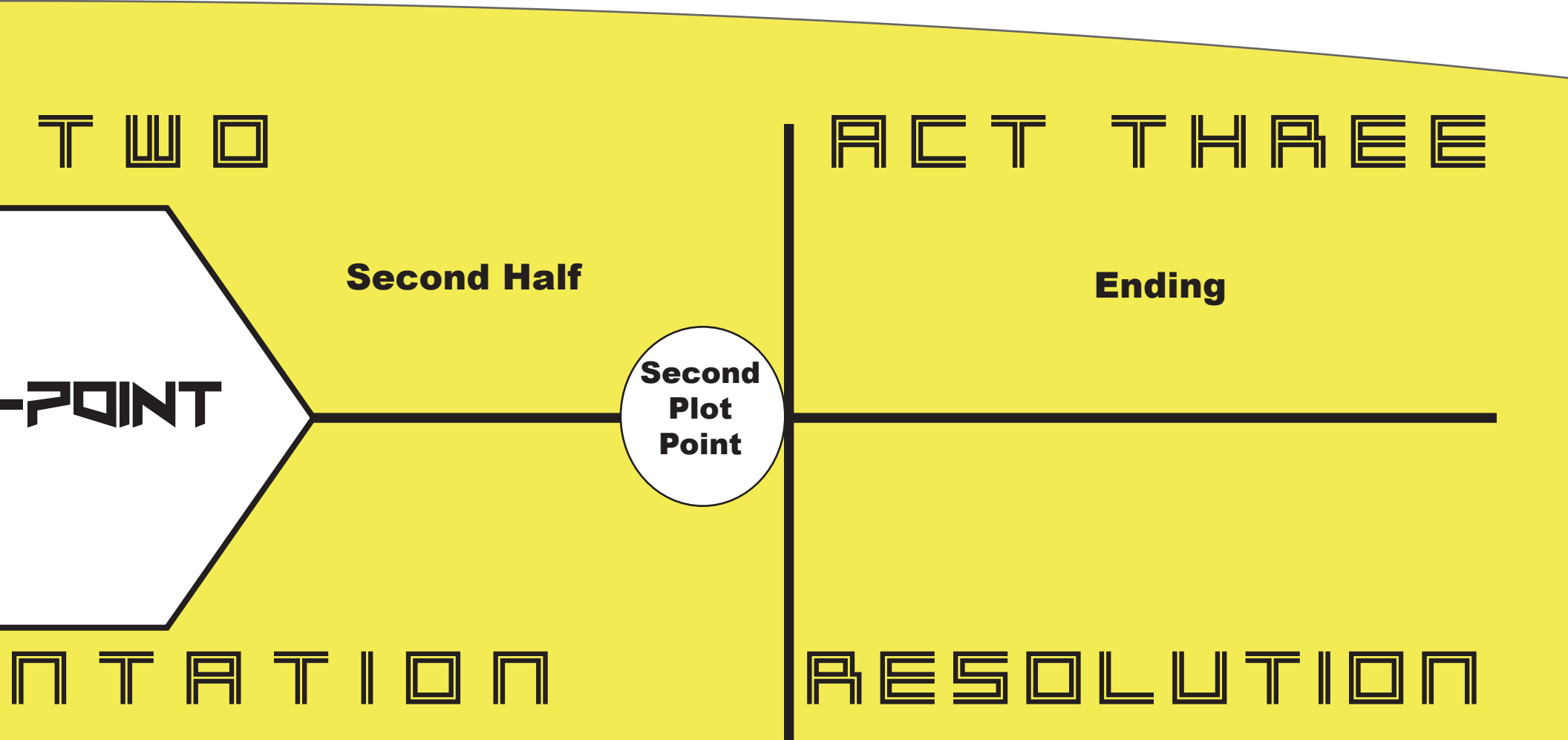
After studying a book and watching the movie, ask students to answer some key questions:

- What was it about?
- Themes, technologies, society
- Tell us about the movie version.
- Who directed it?
- Who starred in it?
- Was the movie true to the book?

Students can present their research findings to the class. Again, the hope is to inspire the class to write or draw. By the second or third week, students should coming up with an “elevator pitch”.



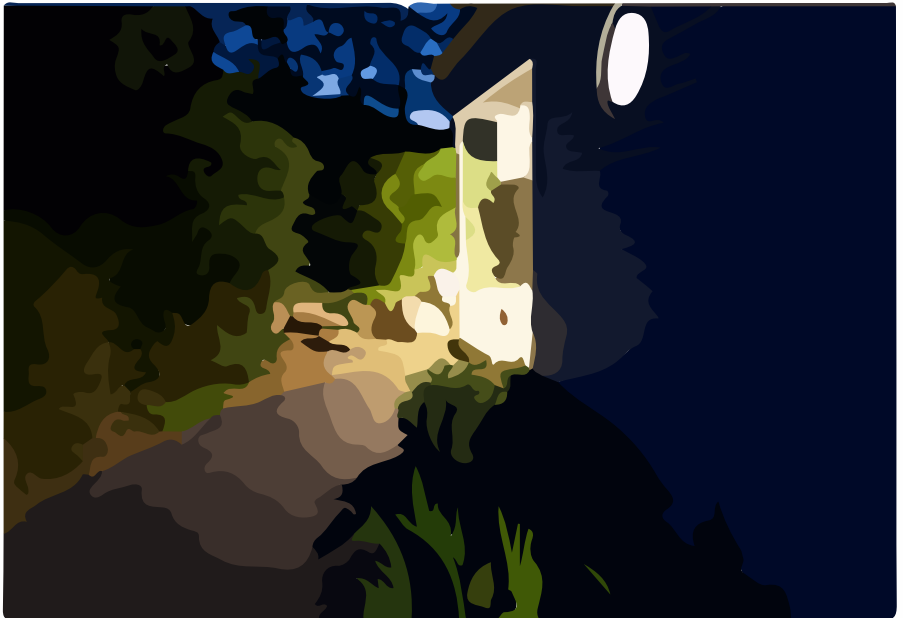
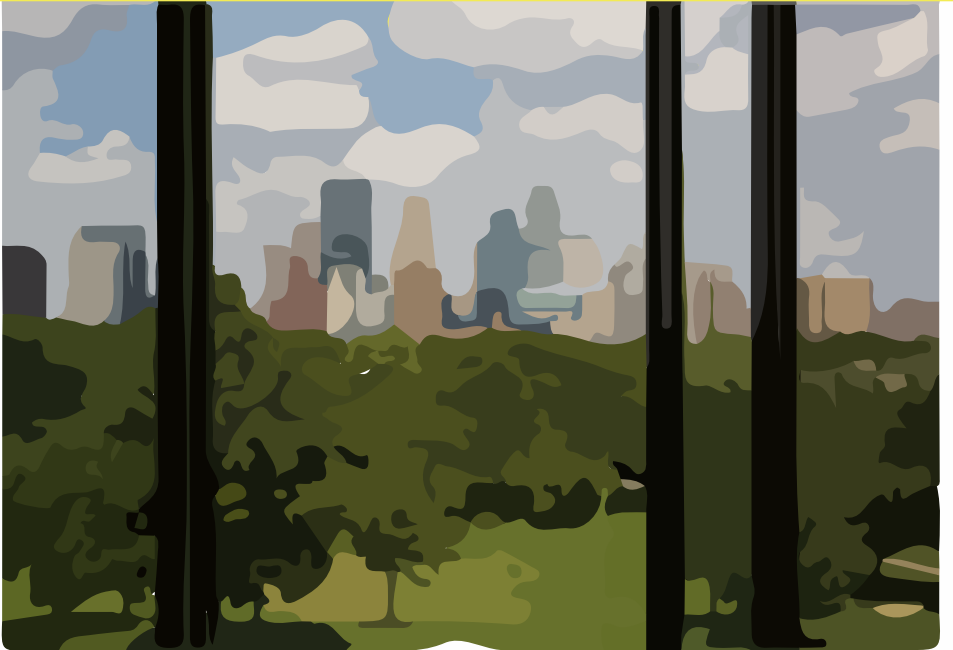
Studying the work of Stanely Kubric really inspired me to share this lesson. He often sought out literature and authors in the early satges of his filmmaking process. His partnership with Arthur C. Clarke led to one of the inflencial scifi films ever made: 2001. Each of the books on the reading list have been adapted into films.



CINEMAGRAPHIC COMPOSITION AND LIGHTING

LEARNING THE BASICS

In the first week of this class, introduce commonly utilized compositional conventions: Rule of thirds, leading lines, balancing elements, close-up, medium shot, wide shot, cowboy shot, framing, symmetry, emphasis. Show them as many examples as you can get shoot. Ask them to identify conventions used in student work as well as master work. Introduce Bresson to illustrate leading lines.



I recommend the book: Read This If You Want To Take Good Photographs by Henry Carroll. It makes a great quick reference guide for students in a language that is concise and easy to understand.

READ THIS
IF YOU WANT
TO TAKE GREAT
PHOTOGRAPHS.
HENRY
CARROLL

NARRATIVE PHOTOGRAPHY

VISUAL STORYTELLING

This stage is a great time to present the famed photographer, Cindy Sherman. Her Film Stills series is a perfect illustration of photographic narrative. I like to ask students if they can identify the archetype being portrayed in each photograph.



Link to Clones Step-By-Step: <https://drive.google.com/open?id=0B9Jg58dH3XDdT2JJbmlYXzlWTTA>

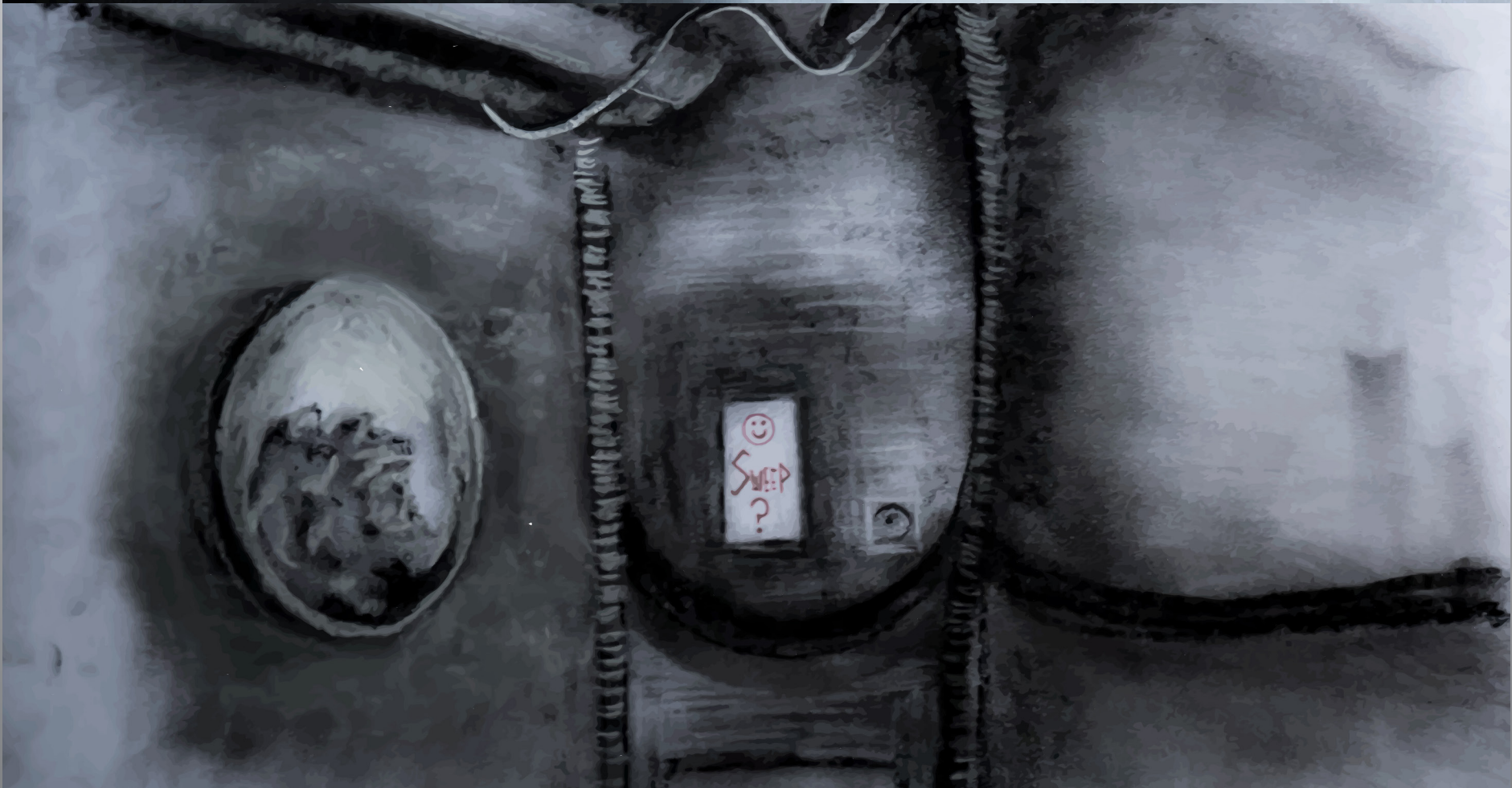


The photo above is an example of clones made using Adobe Photoshop. While studying Art Education at UW-Stout, I was lucky enough to have a class taught by Bob Atwell who introduced this lesson to me. With a tripod, camera, computer, and a friend (or timer) a student can be both the director and the talent. I've taught the clones project to every Photo class I've ever taught with great success and interest.

On the left, a sophomore, plays dead in an extra credit, narrative photo submission.

CONCEPT ART

It is important to encourage students to coceptualize ideas; by making a prototype they can move forward from the ideation stage of the design process. Encourage students to use a variety of media. Experimenting with new kinds of drawing or painting can often bring forth new ideas or better refine erlier iterations of a concept. This is also a great time to introduce the notion of dramatic lighting, mood, and color in film production.



SET BUILDING

This is where the prototypes become working backdrops to the narrative. It's also a good time to bring out the cameras, again. Students can light the sets for well-composed still shots. We can critique these shots as a class and make needed changes or adjustments. I like to partner up with the Tech Ed department for this stage of the project to help students use equipment safely and plan cuts. 3-D printers are pretty cool for small set pieces and props, too.



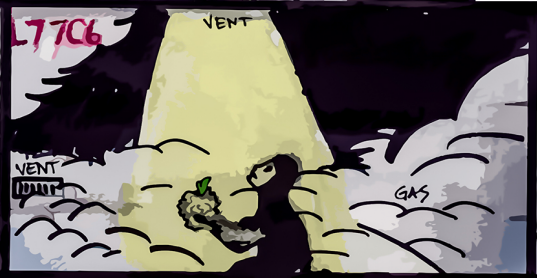
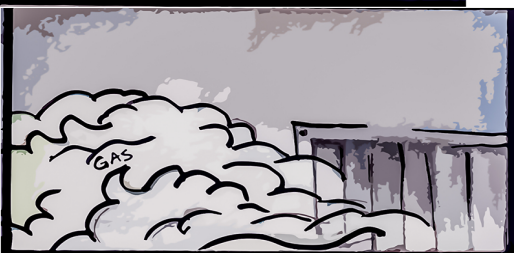
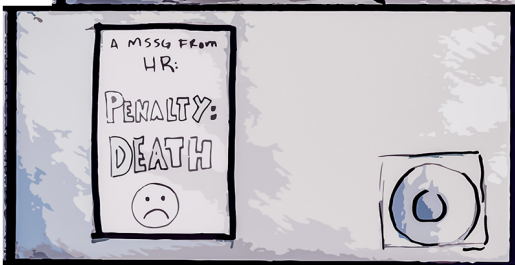
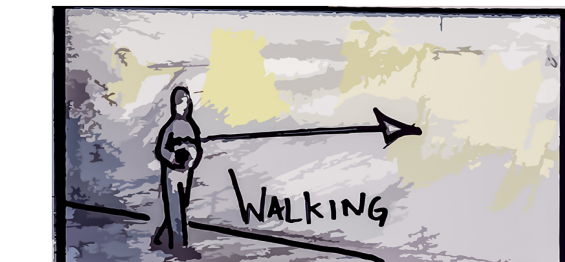
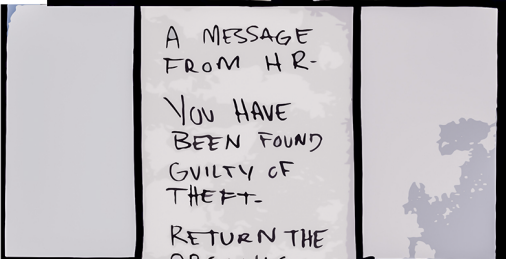
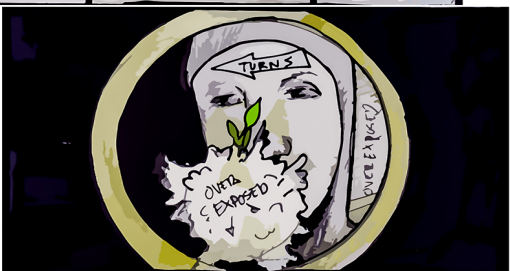
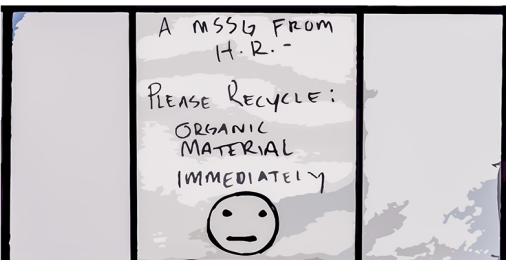
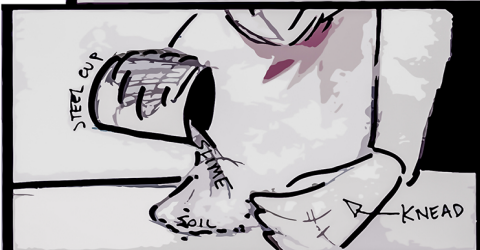
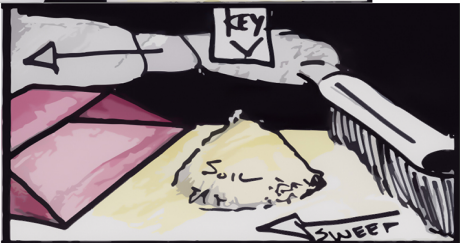
STORYBOARDING

Drawing out angles and movement will help students plan specific shots for production. They can also be used in post-production to establish shot/scene order in sequence.

PLANNING

All of pictures on the right are frames from a Scifi movie entitled Sweep that I made as a Graduate student. I tried to plan as much in storyboards as I could before shooting.

The 'HR' screen is actually an iPad. I used Adobe XD to make it interactive. The speaker is meant to give a source of 'HRs' ominous voice-over.



Voice-Over: HR
Sound: Gas hisses from vent.

Actors and camera operators can reference the storyboards and direction notes during shooting. At this stage students can start listing sound effects for team members to source. The inetenet is a good source for sound effects, but students may want to record their own sound effects on a foley stage. Here's an opprotunity to partner with the Music Department. They may have options for sound recording. The band teacher may also help with scoring the films.





PRINCIPLE PHOTO GRAPHY



**On the left:
Cindy Sher-
man's Film
Still that
served as the
primary in-
soiration for
this film. We
turned the
runaway
stereotype
into a mur-
derer stereo-
type.**



This short film is based on a Cindy Sherman photograph. It a result of a challenge posed by Peter Galante: Make a film based on a famous work of art. After studying the Film Stills series as a grad students and an art teacher, I felt like one of those works would be a perfect fit for this project. The whole film is one shot, slowly panning away to reveal the narrative. I sat in the truck of a car as it slow rolled down a hill in nutral. It was important that the driver not hit the breaks for the entire shot because the break lights shone bright red against my actor the very talented Angela Wheeler.



Here's another opportunity to take stills. Production shots can help explain the process during a presentation to the class. Other students can get a chance to see 'behind the scenes'.

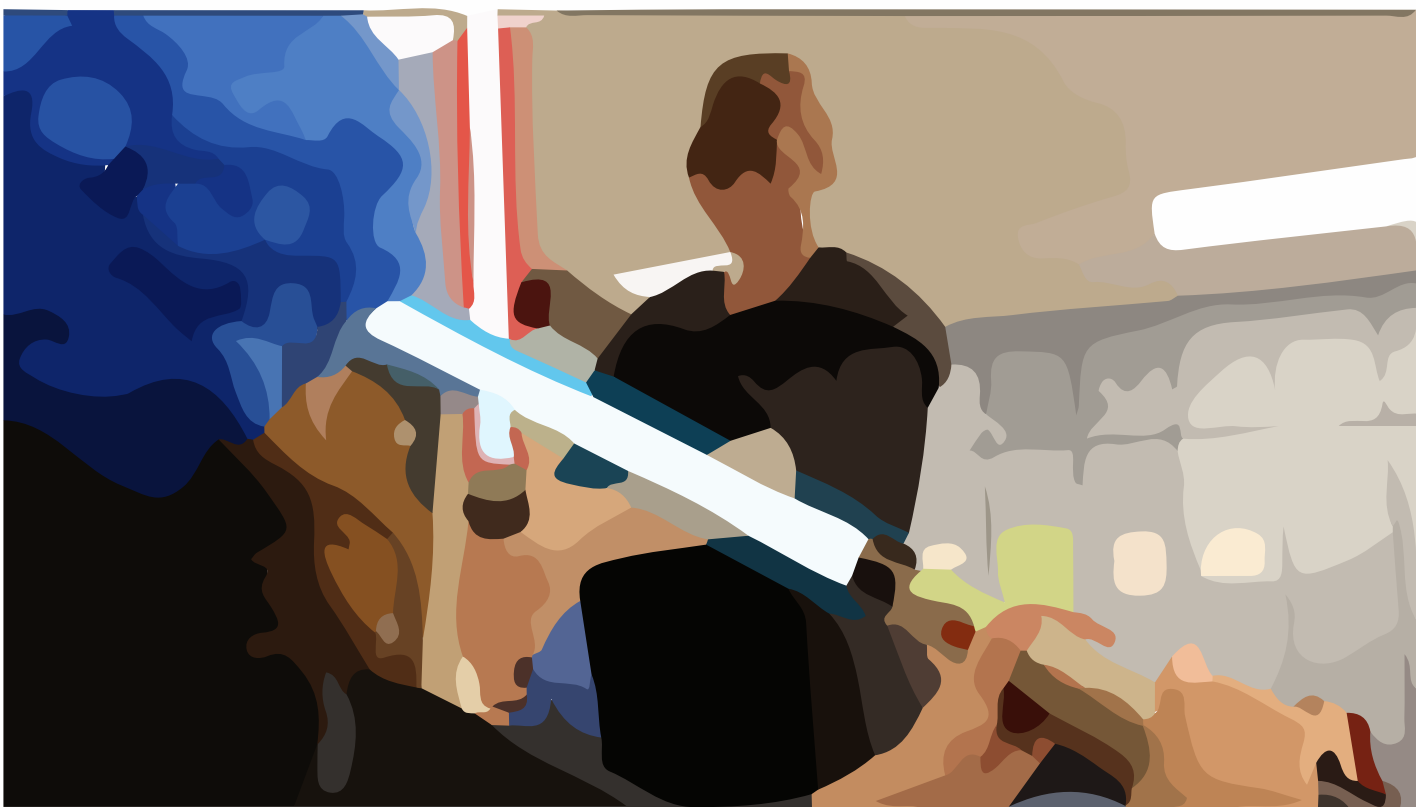


POST PRODUCTION

SPECIAL FX



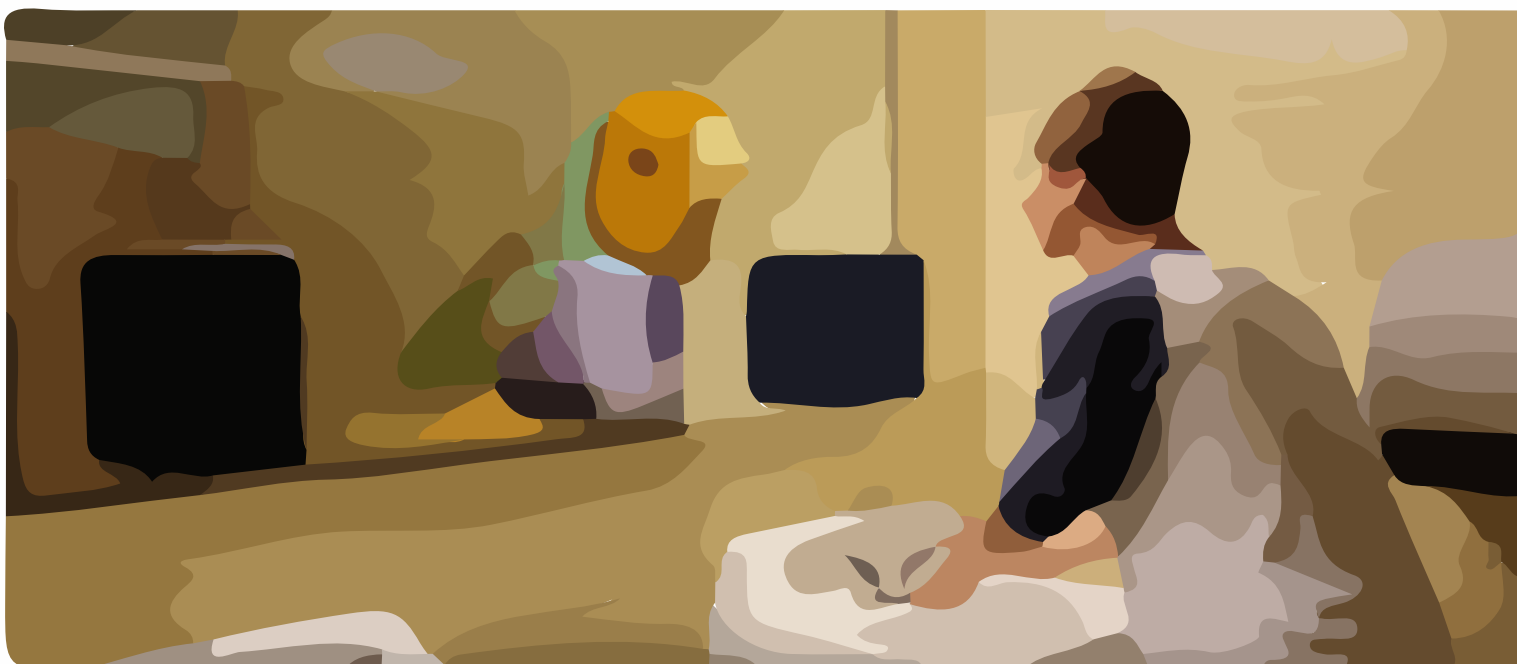
I have found that some students become highly engaged in the post-production process, especially when it comes to digital effects. The pictures on the left come from a student film. The light saber effects were added in Adobe After Effects by a student who was not totally committed to the group's initial Starwars spoof idea. But when I showed him how to create the lightsaber effect, warning that such a frame-by-frame process is extremely time consuming, he threw himself into editing. The resulting, two minute battle sequence stemmed from one student's tireless dedication over several hours of concentrated effort. The sequence also became a point of pride for the student when it was unveiled to the public at the end of the semester. A few years later, that student enrolled in film school with a focus on movie effects.



Other effects I've found for students include green screen, split screen (think: Parent Trap), pyrotechnics, and even some forced perspective (in camera) shots.



PAROTECHNICS



MASKING



GREEN SCREEN



SPLIT SCREEN

AN AUTHENTIC EXPERIENCE

WORLD PREMIER



FILM FESTIVALS

Entering students' finished films into regional or national film festivals is a great way to give them an authentic goal. They can set up their own account at Film Freeway; a site that connects filmmakers to film festivals.

MARKETING CAMPAIGNS

At this late stage in the filmmaking process, students can test out their typographic and digital print design skills by marketing their films to the school. I tied student films to the annual art show which gave the wider community an opportunity to see the student-made work. One year, a student of mine was interviewed by a local radio station a week before the event, boosting community involvement. Other students have used social media in their campaigns; sharing images and updates with friends from around the region.

PUBLICITY

Here's your chance to really boast about your program to the school, parents, and community. In the third year of teaching film, I was lucky enough to win \$35,000.00 in grant money in support of the multimedia program which really helped to afford new tools for students. The money made a positive effect on student learning, but the show of support really helped to raise confidence in student filmmakers. Often, art teachers can feel overwhelmed with extra-curricular, unpaid commitments. But showing these student films is a piece of cake and the payoff in student engagement is well worth the effort.



After graduating from MIAD with a degree in sculpture, I went on to work as set builder for an animation studio and a photographer for ten years. I then received my second degree in Art Education from the UW-Stout after which I worked in both High School and Middle School Art Classrooms for five years. Currently, I am pursuing an MFA in Design.

REFERENCE FURTHER STUDY:

Benson, Michael (2018). Space Odyssey: Stanley Kubrick, Arthur C. Clarke, and the Making of a Masterpiece. New York, NY: Simon & Schuster

Davenport, Christian (2018), The Space Barons: Elon Musk, Jeff Bezos, & The Quest to Colonize the Universe. New York, NY: Public Affairs

Grazier, Kevin R. PhD (2008). The Science of Dune: The Unofficial Exploration Into The Real Science Behind Frank Herbert's FICTIONAL UNIVERSE. Dallas, TX: Ben-Bella Books

