

MAS.S66 Fall 2023

City Sci-fi:

Speculative Movie Making Towards the Design of Future Cities

Ecology Futures

A City Science Workshop

Instructors: Kent Larson, Gabriela Bîlá, Luis Alonso

TA: Maitane Iruretagoyena, Candice Wu

+ guests

Time: Wednesdays 2pm - 5pm

First class: September 13th (WED)

Location: E15-359 (MIT Media Lab)

Contact: gba@mit.edu (Gabriela) kll@mit.edu (Kent)

Summary: This class is a hands-on **workshop on urban narrative and movie making**.

Students will imagine how new and ancestral technologies may assist designing ecological urban ecosystems in 50 years, and produce a 2-5 minute movie to immerse larger audiences in their world concept.

#Building the world and the story

Students will learn about technologies of ancient and contemporary cities in the Amazon forest, and, informed by this, develop a future ecological urban scenario. Students will then create a scene that represents a moment in this world.

#Movie production

Students will build technical skills such as shooting, editing, virtual composing, and other aspects of moviemaking. They will be guided by the mentors and guest lecturers through the process of bringing their idea to completion.

#Exhibition: Final projects will be displayed at a public screening at the Media Lab 3rd floor atrium followed by Q+A.

Student projects Spring 23: <https://www.media.mit.edu/posts/city-sci-fi/>

Motivation: To create the future we want, we have to be able to design and visualize it. The 21st century is a critical moment for humanity: the unfolding climate crisis signals a turning point to reinvent our presence in the biosphere. The established systems of power, accumulation, consumption and domination have failed. In this context, how can we create new modes to inhabit the Earth that foster justice and fairness to all forms of life? What do the original people of the Amazon forest have to teach us about organizing human life within broader natural ecosystems?

In this workshop, designers, engineers, scientists, and students from multiple backgrounds will form teams to imagine ecological urban experiences in the future using movie-making as a tool. We will learn from guests who research, work and dwell in the Amazon rainforest and, informed by that, create future scenarios of community life. We will take a look at the fundamentals of sci-fi world-building and learn techniques to plot stories into immersive narratives. Students will build an urban landscape that shapes this future, and a short movie that shows a moment inside of it. Narratives will be experienced on many different levels through cinematography, prototyping, or sound design.

Prerequisites: Permission of Instructor, Units (3-2-7), Fall 2023.

Learning objectives:

- Ability to build a story to forecast “what if?” scenarios;
- Analyze future evolution and impact of past, current and future technologies;
- Experiment with directing and storytelling techniques;
- Explore the science fiction genre as a scientific research tool;
- Gain technical, aesthetic and conceptual skills on movie making;
- Build studio culture;
- Learn how to bring an idea to its completion: from a concept until it's materialized into an exhibition to external audiences.

Experience: No previous technical or design experience is required. This class seeks highly motivated students from diverse backgrounds.

Enrollment: Maximum of 20 students will be accepted.

Structure: Typically, each 3-hour session will begin with a 60 to 90-minute lecture and Q+A. Students will then be given a 90-min in-class workshop time for assignments, tutorials, and presentations of project progress.

Every week there will be homework that **incrementally builds** towards the final project. Therefore, having consistency on the assignments is crucial for the quality of the final work. Every class the students will present their project's latest development, in a way to build studio culture and cross-pollination of ideas and skills among peers.

Optional activities: During the term, optional activities will be held in order to collectively create skill sets and references. Attendance is not mandatory but is highly recommended.

- Movie nights followed by discussion
- Video editing workshop
- Studio set up workshop
- Unreal Engine workshop

Class materials, guests and resources: We will assign readings and movies to watch throughout the term. These materials will be based on student projects and class discussions.

Guest researchers and industry professionals will be joining us throughout the semester to present on their topics of expertise.

Participation and community: This class seeks to build collaboration skills, which is essential to studio culture. All students are required to engage in class discussions and project critiques, which will be taken into consideration for grading. When providing feedback to peers, always respect their diverse backgrounds and experiences.

Software: We will use Adobe CC and free software for the in-class tutorials. Adobe CC is provided to MIT students via IST. Students are free to use other software for their final projects as they see fit.

Final Project: The final project is executed by teams of 2 students, and is composed of two main parts:

1. **The dossier (midterm):** Concept book with worldbuilding and story, containing at least:
 - a. the premise of your world;
 - b. the focus area of area of research (mobility, food prod, dwelling, working, kinship, politics, economy, etc)
 - c. why this theme is important for you;
 - d. how different aspects of urban life might be impacted by this technology in fifty years;

- e. style frames;
- f. draft storyboard for a 2 to 5 min movie;

The dossier will be refined during the second half of the term as the projects will continue to evolve.

2. **The short movie + poster (end of term):** A 2 to 5 min movie to immerse an audience in the world you created.

Final exhibition: The dossier and the movie will be presented at a public exhibition and festival screening session: the second open edition of the City Science Student Film Festival. Students will participate in a Q+A with the audience.

Students will be encouraged to exhibit extra materials they may produce throughout the term, such as prototypes, costumes, props, miniature models, posters, soundtracks, and anything that helps to communicate their world vision to the audience.

Weekly Schedule

Week 1 (13/SEP) - Introduction

Room: E15-359

Class introduction: Kent Larson, Gabriela Bilá, Luis Alonso

Class overview:

- Summary of goals and the material that will be explored in the class
- Syllabus
- Class logistics
- Q+A
- Students and lecturers' introductions.

Week 1.1 (14/SEP) - Kick-off class with Vanda Witoto: The urban to forest divide - when the Amazon encounters cities

Room: E14 3rd floor Atrium , 5-6pm

Lecture: Vanda Witoto (indigenous leader of Witoto people, nurse, voice of indigenous health during Covid-19 pandemic)

Witoto people's history, indigenous life in fringe urban areas of the legal Amazon and their health amidst the COVID crisis. The Amazon paradox: abundance in natural resources vs. human misery.

Homework: Research how indigenous people of Amazonia (or another biome of preference) tackle one major aspect of community life such as: mobility, food production, politics, economy, division of labor, dwelling, inter-species relations, energy gathering, social structures, property, education, health, weather management, kinship, religion, leisure. Prepare a short presentation: what motivates you to research this topic? What did you discover?

To be submitted until 7pm in the evening before following class.

Week 2 (20/SEP) Pre-columbian Amazon

Room: E15-359

Lecture: Eduardo Goés Neves (Prof. of Archaeology at the University of São Paulo, Brazil)

Using traditional and cutting edge archeology technologies to unveil life of populations in the Amazon before the European invasion.

Class assignment: Group discussion, brainstorm and report back. How can the indigenous technology, science or practice you researched at the previous homework be incorporated to create a new model of urban communities in the next 50 years? Which problems of cities as we know today would benefit from adopting that indigenous knowledge?

Homework: Continue research initiated in class. Prepare a short presentation to discuss in the following class.

To be submitted until 7pm in the evening before following class.

Week 3 (27/SEP) Group feedback

Room: E15-359

Class assignment: Each student presents previous homework. Students divide in pairs.

Homework: Pairs start building a future urban community narrative. What's the premise of your community? How is that different from how cities are organized today? How does that premise affect the community across different scales?

Week 4 (04/OCT) Indigenous Sci-fi

Room: E12- MIT Nano Lab

Lecture: Grace Dillon

What are indigenous science and fiction? How does that compare with the western notion of sci-fi?

Presentation on workflow figure out the dates of workshops

Homework: Start developing possible storylines within the future community you created in the previous assignment + visual study.

***Schedule office hours with the instructor.**

To be submitted until 7pm in the evening before following class.

Week 4.1 (06/OCT) City Science Workshops @Climate Tech

Room: E14 - 6th Floor

This week the City Science group will host the ClimateTech event with MIT Technology Review. Students are strongly encouraged to attend the City Science Summit Workshops on Friday October 6th.

More info to be posted here shortly: <https://citysciencenetwork.org/>
[Registration is required](#)

Week 5 (11/OCT) Climate adaptations at Amazonian cities + movie night

Room: E15-359 + Bartos Theater

Lecture: Diosmar Filho (Head of Amazonia Legal Urbana research center, director of movie *Terras que Libertam*)

How big cities within the Amazon forest, and their inhabitants, are already adapting to climate change?

Homework: The dossier. It should contain: 1. the premise of your community, 2. why you're interested in this theme, 3. how it will impact different areas of urban communities, 4. which character will embody your story, 5. A scene.

To be submitted until 7pm in the evening before following class.

Movie evening: Terras que Libertam - Q+A with director Diosmar Filho.

Room: Bartos theater (E15-070)

Time: 6pm

Week 5.1 Shooting set workshop (optional)

Date, time and location TBD.

Lecture: Jimmy Day (Media Lab videographer)

How to assemble a basic movie set. Cameras, lights, backgrounds, sound recording.

Class assignment: Visual experiment using camera of choice.

Week 6 (18/OCT) MIDTERM

Room: E15-359

Midterm presentations: Groups present their dossiers.

Homework: Outline main scenes of your movie and draft a production schedule for the following weeks.

To be submitted until 7pm in the evening before following class.

Week 6.1 - Video editing workshop (optional)

Date, time and location TBD.

Mentor: Gabriela Bila

Hands on workshop on Adobe tools (Premiere and After Effects) for video editing.

Week 7 (25/OCT) Forest Fiction

Room: E15-359

Lecture: Simon de Diesbach (director of movie Limits)

A digital forest as the main character. Discuss the production of short movie Limits, from its conceptualization to production.

Class assignment: Draft a scene in a script format.

Homework: Script or storyboard + visual research.

To be submitted until 7pm in the evening before following class.

Week 8 (01/NOV) Motion Capture Workshop - MIT Immersion Lab

Room: E12- MIT Nano Lab

Class tutorial: Talis Reks (MIT Immersion Lab)

Hands-on tutorial on motion capture using MIT Immersion Lab.

Homework: Start shooting! (if you haven't started yet)

Week 8.1 - Unreal Engine workshop (optional)

Date, time and location TBD.

Mentor: Candice Wu

Basics of Unreal Engine for animation and compositing.

Week 9 (08/NOV) Sound

Room: E15-359

Lecture: Christian Frederickson (violinist, composer, and sound designer for live performance)

The role of sound in creating a movie aesthetic signature. What is soundscape, what are sound effects, how to research sound, how sound and images are intrinsically connected.

Class Tutorial: Use software to edit sound and make corrections on field recordings.

Homework: Continue working on the project + sound study.

Week 10 (15/NOV) Rough cuts

Room: E15-359

Class assignment: Watch rough cuts together and get feedback from guests and instructors.

Homework: Continue working on project.

Week 11 (22/NOV) Thanksgiving week

Office hours by request.

Homework: Make refined 2nd cut.

Week 12 (29/NOV) AI Ethics in the movie industry

Room: E15-359

Lecture: Guest TBA

What are the ethical implications of using AI in the cinema industry, and how does it impact creative expression, privacy, and the portrayal of diverse perspectives?

Homework: Finalize movie and dossier.

Week 13 (06/DEC) Final Class

Room: E15-359

Presentation of short movies for grading. Bring all the printed and physical objects to display at the exhibition.

Submit the final movie file until 11:59pm EDT.

Week 13.1 (08/DEC - Friday) - Public screening at the Media Lab

Room and time: We

Short Movies screening festival + the dossier exhibition

Open to the Media Lab community. Q+A with students.