

AMAZONIA STUDIO, 2023

MANAUS, waterfront + igarapés

MIT Spring 2022 – Architecture Design Option Studio 4.154

Tuesday and Thursday, 1-5pm ET

Angelo Bucci (abucci@mit.edu) and Luca Smith Senise (TA, lucaaa@mit.edu)

in collaboration with Marcos Cereto, UFAM, Manaus, Amazonas, Brazil



IDD / Instituto Durango Duarte

Manaus from rio Negro toward north: floating city, harbor and town between Mindu's igarapé on the left and Educandos' igarapé on the right.

A few years later the floating city would be destroyed by sinking.

Introduction

The third edition of Amazonia Studio is in Manaus, the largest city in the region with 2.5 million people. Manaus is situated at the border of *Rio Negro*, right before its junction with *Rio Solimões* to become the immense *Rio Amazonas*, the Amazon River. The hydrological condition of Manaus also made the place a cultural hub for ancestors and outsiders, as if it was a metropolis for native peoples well before its modern cosmopolitan incarnation after the arrival of post-Colombian colonizers. Today it remains a metropolis for two worlds at same time. The city of Manaus represents an extremely rich cultural amalgamation that can be perceived in works, music, clothes, food and architecture.

More than this, it imprinted a unique spatial culture defined by people living on the water, on the ground, and in the huge range of situations in between. Specifically, this studio will be focused on two related topics: a two-kilometer-long stretch of waterfront facing the Rio Negro and two remarkable *igarapés*: *Mindu* and *Educandos*.

Waterfront

This stretch of the waterfront corresponds to the harbor of Manaus, formally established in 1899. The port is quite active and plays a crucial inner and outer role, both connecting different regions inside Amazonia and linking the Amazon with the rest of the world. Historically, after the decline of the rubber market in the region, a floating city was settled there, growing up to an estimated population of 12,000 people. Then, in the end of the 60's, it was destroyed. More than haunted by a wrecked city, the rim of Manaus faces a tough task: 14m is the average seasonal changing of the Rio Negro's water level. Exploring the possibility of a floating waterfront for Manaus aims at establishing a consistent configuration between historic and fluvial conditions.

Igarapés

An *Igarapé* designates a branch of river going into, originally, a piece of forest. Although many *Igarapés* have been drained and built over, several of them remain inside the urban area of Manaus. Historically, the relationship between the constructed landscape and the typical geomorphology of an *igarapé* was marked by the use of a local architectural typology: the palafittes, usually for housing. More and more, an environmental agenda has changed common understanding about the crucial role of *Igarapés* in mediating water and land conditions. A public program entitled PROSAMIM — *Programa Social e Ambiental dos Igarapés de Manaus* — was established in 2003 targeting two types of actions. The first is environmentally oriented, aimed at developing urbanization and affordable housing. The second, is socially and institutionally oriented. Both the *Educandos* and *Mindu igarapés* were partially redefined by this program. *Igarapés* suggest a delicate and fine relationship between water, park and constructions. It could represent, as an essay, the relationship between river with forest, and between both of them — forest and river — with architecture.

Work in partnership / design in dialogue

The studio will be in touch with people from Manaus. At a first glance, we will receive as guest lecturers, Marcos Cereto and Isabella De Bonnis, faculty at the School of Architecture at the Federal University of Amazonas, UFAM, and Roberto Moita, a renowned architect in Manaus. A studio trip, during spring break, will further our connection with local people and institutions.

Methodology

As a design studio, activities are developed through dialog under two universal formats: desk crits, individually; and pinups, sharing ideas among the group. The dynamic of working is modulated in time along the semester, three reviews [preliminary, midterm, and final reviews] according to milestone events for three successive emphases of the design process: concept, development and closing. These emphases are enchainned like three acts, phases, to make us realize how time inflects changing goals and atmospheres along the design process.

The first act, concept, is dedicated to opening our field of possibilities. Arriving at a worthy decision, besides clear criteria, requires selecting the best among several possibilities, which come up during the design process as sketches. Therefore, at this first act, we are supposed to open more than to focus, as in a productive drift. It is in this phase that an architect renews themselves by formulating hypotheses that are unusual or unexpected. The question here is 'what?' The goal is a clear concept. Although it might seem simple, this concept produces a fundamental drawing, usually a diagram or a sketch: clear enough to guide us at the beginning of the process and, at the same time, open enough to allow several possible unfoldings. For this reason, a single concept remains in our mind, with the power for multiple proposals that we see as recurring along the life of an architect. The concept aims at the density of a synthesis. This phase could be related to arch (*-arkhi*): starting point, foundation and cause of the process.

(During this phase, part of the work could be developed in groups. Students could be organized, for example and according to their own interests in teams dedicated to research specific areas among those three — igarapé Mindu, Rio Negro waterfront, igarapé Educandos — also, students could all collaborate to produce a physical model)

The second act, development, corresponds to a dive into the grammar of architectural language emphasizing its constructive and aesthetic aspects. This phase is dedicated to tectonic (*-tektion*). Here, the question that we must face is 'how?' Its resolution requires that the unity, from a clear concept, must be dismantled in parts. It is an analytical search for the possible essence of each part and the judgment of its constructive meaning in relation to the whole. It is a phase of accumulation, but each time it is necessary to shake the drawing paper strongly enough to make what is no longer relevant falls away. Accumulation with valid criteria.

The third act, closing, requires the most rigorous filter, at same time strategic and poetic, in order to frame a clear discursive sequence that can properly present the proposal. This phase is design. The question here is 'why?' which, at this point, must be sufficiently answered by the project.

Schedule

Tuesdays and Thursdays, from 1pm to 5pm

phase	week	date	activity
		FEB 06	STUDIO LOTTERY
Phase 1: CONCEPT (group/shared research)	1	FEB. 07 FEB 09	Presentation / introduction to phase 1: concept PINUP / first approach / guest lecturer 1 (Roberto Moita)*
	2	FEB 14 FEB 16	Desk crits / guest lecturer 2 (Marcos Ceretto)* Desk crits
	3	FEB 21 FEB 23	Desk crits / guest lecturer 3 (Isabella De Bonnis)* PINUP / concept presentation
phase 2A: DEVELOPMENT 1	4	FEB 28 MAR 02	Introduction to phase 2A: development / Desk crits Desk crits
	5	MAR 07 MAR 09	Desk crits PINUP / midterm preview
	6	MAR 14 MAR 16	Desk crits Desk crits
	7	MAR 21 MAR 23	Desk crits MIDTERM REVIEW
		MAR 25 APR 01	SPRING BREAK / STUDIO TRIP TO MANAUS
phase 2B: DEVELOPMENT 2	8	APR 04 APR 06	Introduction to phase 2B: development 2 / Desk crits Desk crits
	9	APR 11 APR 13	Desk crits Desk crits
	10	APR 18 APR 20	Desk crits Desk crits
Phase 3: CLOSING	11	APR 25 APR 27	Introduction to Phase 3: Closing / desk crits Desk crits
	12	MAY 02 MAY 04	PINUP / Final Preview Desk crits
	13	MAY 09 MAY 11	Desk crits Desk crits
	14	MAY 16 MAY 18	Desk crits FINAL REVIEW

* schedule to be confirmed