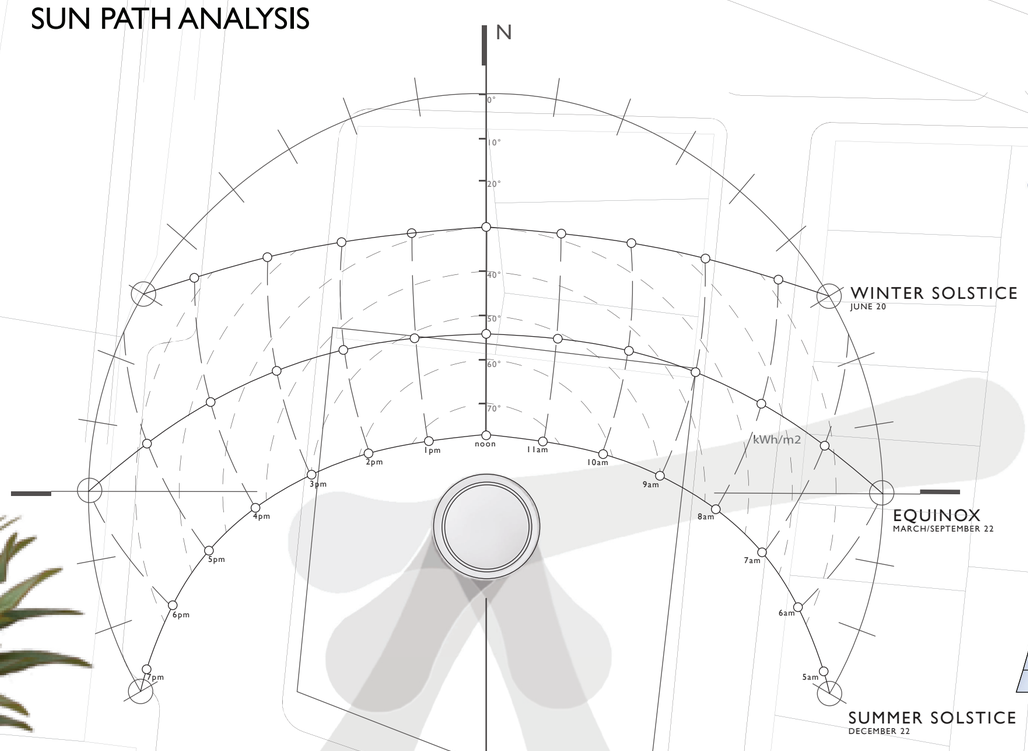
URBAN ECOLOGY
VICTORICA

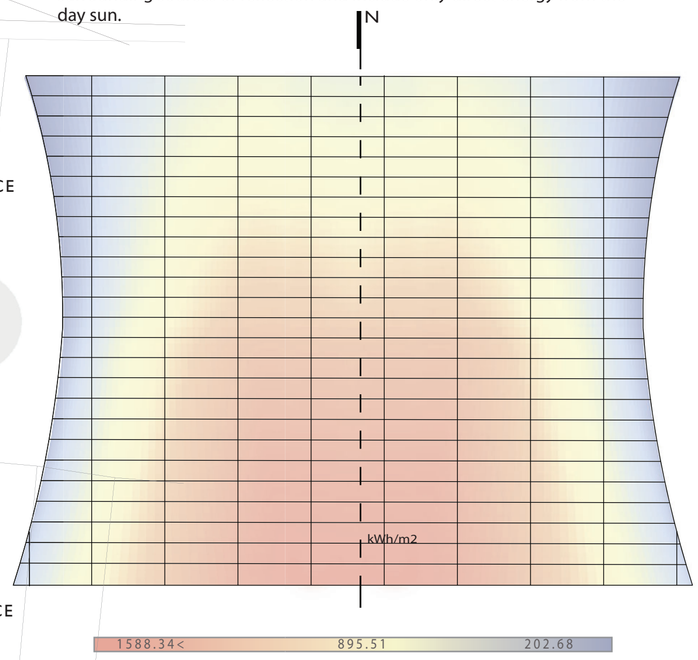
Surrounded with poor conditions of ground vegetation/coverage and lacking elements of productive biodiversity, the introduction of a vertical gardening infrastructure within the Victorica site would give away to a regenerative system of urban ecology that sustains communal resilience. The vertical structure would be employing three categories of planting: pollinators, medical, and agriculture; all in which would supply product for the local Co-Op and a seamless fabric of leisure for recreational/civil usage.

SUN PATH ANALYSIS



RADIATION ANALYSIS

The examination of the cumulative annual average of radiation fallout across the building surface of the Victoria's water tower, this study exempted all surrounding sources of reflection and include only direct energy from the day sun.



Eschscholzia californica
California poppy

PLANT TYPE
- POLLINATORS → BUMBLE BEES (APIDAE), SWEAT BEES (HALICTIDAE), MINING BEES (ANDRENIDAE) → BY PRODUCT TO CO-OP → HONEY, NECTAR, BEEWAX, POLLEN, PROPOLIS
- MEDINICAL
- AGRICULTURE

BENEFICIARIES
- ROCK DOVE (COLUMBA LIVIA)
- EARED DOVE (ZENAIDA AURICULATA)
- HOUSE SPARROW (PASSER DOMESTICUS)
- BLACK-CHINNED SISKIN (CARDUELIS BARBATA)
- RUFOUS-COLLARED SPARROW (ZONOTRICHIA CAPENSIS)
- AUSTRAL BLACKBIRD (CURAEUS CURAEUS)
- SHINY COWBIRD (MOLOTHRUS BONARIENSIS)

DRIP IRRIGATION FROM TOWER'S WATER

REDUCE WATER USAGE
BY 95%

PLANTING SCHEME

The planting scheme that has been projected across the water tower located at Recinto La Victoria is based on the cumulative average of radiation exposure and each plant's toleration.

							GT
							GT
		LC				GT	GT
		LC			GT	GT	GT
	LC	LC		GT	GT	DP	DP
	LC	GH	LC	GT	GT	DP	EB
	LC	GH	LC	LC	DP	DP	EB
	LC	GH	GH	DP	DP	DP	DP
	LC	LC	GH	CS	CS	DP	DP
	LC	GH	GH	CS	CS	DP	GH
	GH	GH	CS	GR	CS	FC	GH
	GH	CS	CS	GR	FP	FC	GH
	CS	CS	GR	FP	FP	FC	FC
	CS	FP	GR	FP	KO	LC	FC
	CS	FP	GR	FP	KO	LC	FC
	CS	FP	FP	FP	KO	LC	LC
	CS	PA	KO	FP	KO	CS	LC
	CS	PA	KO	KO	KO	CS	LC
	PA	PA	KO	KO	CS	CS	CS
	LC	MS	KO	TM	CS	CS	CS
	MS	LC	MS	TM	TM	FV	CS
	GD	MS	LC	MS	TM	FV	CS
	GD	MS	MS	EX	EX	FV	CS
	GD	GD	EX	EX	FV	FV	FV

PLANT LIST

MEDINICAL
- *Digitalis purpurea* - **Dedalera**
- *Ephedra chilensis K. Presl* - **Ephedra**
- *Equisetum bogotense kunth* - **Equisetum bogotense**
- *Fabiana patagonica* - *Fabiana*
- *Galium hypocarpium* - **Galium**
- *Geranium* - **Robertianum**
- *Geum magellanicum* - **Scarlet avens**
- *Haplopappus baylahuen* - **Bailahu**
- *Kageneckia oblonga* - **Bollen**
- *Lobelia excelsa* - **Lobelia**

POLLINATORS
- *Geranium* - **Dissectum**
- *Jovellana punctate* - **Teacup flower**
- *Tropaeolum majus* - **Garden Nasturtium**
- *Eschscholzia californica* - **California poppy**

AGRICULTURE
- *Ephedra chilensis K. Presl* - **Pingo-pingo**
- *Ceratonia siliqua* - **Carob**
- *Prosopis alba* - **White Carob**
- *Foeniculum vulgare* - **Fennel**
- *Fragaria chiloensis* - **Beach Strawberry**
- *Gunnera tinctorial* - **Chilean rhubarb**
- *Luma chequeen* - **White Chilean myrtle**
- *Madia sativa* - **Chilean tarweed (Seed oil)**
- *Mentha aquatica* - **Water mint (herbal tea)**
- *Marrubium vulgare* - **Common horehound**
- *Schinus polygamous* - **Chilean pepper Tree**

Mentha aquatica
Chilean Tarweed
(seed oil)

BIODIVERSITY

This introduction of polyculture practices through the plant selection that is being placed across the Victorica water tower allows for species biodiversity within the urban eco-systems throughout Santiago and increases the stability of species mortality rates.