ASTROTOP_X

05_11_2024, Xcenter, Nova Gorica
45.956557, 13.647316 - planet Zemlja

Medtem ko je velik del vesoljske industrije pa tudi družbenih ambicij in pripovedi usmerjen na iskanje življenju prijaznega planeta, se skupina umetnic_kov in znanstvenic_kov v projektu Astrotop_X sprašuje, kdo ali kaj je (ali so) subjekt(i), ki išče(jo) drugi dom v vesolju in kaj določa dejavnike, ki kozmično krajino opredelijo kot krajino 'B.' Izbrani ekosistem v kapsuli s pomočjo senzorske tehnologije ter računalniškega algoritma upira pogled v globoko vesolje, brska po podatkovni bazi eksoplanetov in presoja, kam – in če sploh – bi se kazalo preseliti v prihodnosti. Skrbno izbran del kraškega ekosistema v kapsuli Astrotop_X preko sporočanja stanja temperature in cirkadialnega ritma v realnem času analizirala bivanjski potencial na eksoplanetih.

Po premierni predstavitvi na pričujoči razstavi bo kapsula potovala v umetniško-znanstvenem laboratoriju xMobil, avtomobilski prikolici na sončne celice, ki predstavlja del zaprtokrožnega sistema, značilnega za vesoljska plovila. Tako se bodo v kapsuli naseljevali različni drugi prizadeti ekosistemi, medtem pa bodo teleskopi vsak dan odkrivali še kak morebitni planet B – ki pa bo seveda zmeraj predaleč, da bi tja tudi zares odpotovali ljudje. Morda pa bo to kdaj uspelo vsaj rastlinam?

Z vidika botanike je kraško rastlinstvo nedvomno že prilagojeno na trde življenjske pogoje, navajeno je na stres: zimski mraz, padavine, sušo, pomanjkanje zemlje in pregrevanje tal, sončno sevanje, burjo. Podobno, najbrž še huje bi bilo na eksoplanetu. Moralno-ekološka dilema: ali ne bi bila takšna rastlina, ki obišče ali se preseli na tuj planet preprosto invazivna vrsta? Tehnični problem: kako naj rastline preživijo tako dolgo pot? Prav možnost preživetja v takih razmerah je izziv tudi za raziskovalce, zato je izbor rastlin za potovanje prva, morda najpomembnejša odločitev. Poleg živih rastlin bi v tako kapsulo lahko dodali tudi t.i. "semensko bombico" ki potrpežljivo čaka na konec medzvezdnega potovanja…

Projekt Astrotop_X nasprotuje antropocentrističnemu dojemanju okolja in poudarja medsebojno soodvisnost vsega živega. V skladu z mislimi Donne Haraway in njenega "chthulucena" poziva k sobivanju večvrstnih skupnosti, kjer so nepremočrtna prepletenost in soodvisnost ključni za prihodnost Zemlje in njenih ekosistemov. Le na takšnem globokem sobivanju pa lahko temeljijo tudi tvorne spekulacije za prihodnost. Ali lahko rastline brez človeškega posredovanja postanejo zares avtonomni protagonisti medzvezdnih potovanj in presežejo naše (človekove) fizične, fizikalne in nenazadnje geopolitične omejitve? V tem kontekstu Astrotop_X kritizira nenietzschejansko prečloveški tehnoeskapizem, ki poganja distopične fantazije kolonizacije vesolja. Opozarja na krhkost tuzemskih ekosistemov, ki so pogosto neupoštevani v dominantnih narativih o vesolju, tamkajšnjih vojaških in ekonomskih prestižih ter sci-fi pravljicah o lepi prihodnosti tam-nekje, vstran od grde in izčrpane krajine A. V algoritem kapsule je vključena podatkovna gesta, ki naposled priznava – da smo tukaj pravzaprav le ljudje (sami).

Tudi rastline so večplastne in nomadske enote, zato opirajoč se na posthumanistično misel Rosi Braidotti Astrotop_x spodbuja premik izven človeškega subjekta, s tem pa na novo opredeljuje in v fokus postavlja voljo ne-človeških dejavnikov. Četudi skozi nemara vendarle prečloveški umetniško-znanstveni pristop, kapsula Astrotop_X omogoča, da narava sama postane aktivna raziskovalka kozmične prihodnosti, s čimer razbija hierarhično ločnico med človekom in ne-človekom. Poziva k preučevanju ne le našega vpliva na planet, temveč tudi, kako lahko (tudi močno prizadeti) ekosistemi kot je (pred kratkim od ognja opustošen) Kras sami navigirajo skozi kompleksne čezresničnosti, kjer Zemlja morda ni več edino ali primarno domovanje živih bitij.

Skupina Astrotop_X:
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Andreja Gomboc, astronomija (UNG FN / CAK)
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Sodelujejo:
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Produkcija GO! 2025 (Mojca Stubelj Ars, Xcenter) v okviru projektov PostMobilnost in xMobil (pETER Purg)

V sodelovanju z:
Univerza v Novi Gorici (ung.si), Fakulteta za naravoslovje (FN), Fakulteta za humanistiko (FH), Akademija umetnosti (AU)
Univerza v Ljubljani (uni-lj.si), Biotehniška fakulteta (BF) in Botanični vrt UL
Zavod Cosmolab

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ASTROTOP_X

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45.956557, 13.647316 - planet Earth

While much of the space industry and societal ambitions are focused on finding a planet hospitable to life, a group of artists and scientists in the Astrotop_X project asks: Who or what is (or are) the subject(s) seeking a second home in space, and what defines the factors that characterize the cosmic landscape as landscape 'B'? The selected ecosystem in the capsule, aided by sensor technology and a computer algorithm, gazes into deep space, sifting through a database of exoplanets to assess where—if anywhere—it might be suitable to relocate in the future. A carefully chosen part of the Karst ecosystem in the Astrotop_X capsule analyzes the potential for living on exoplanets in real-time by monitoring its own temperature and circadian rhythm.

After its premiere in this exhibition, the capsule will travel in the art-science laboratory xMobil, a solar-powered trailer that here represents part of a closed-loop system typical of spacecraft. As it travels, the capsule will house various other affected ecosystems, while telescopes will each day discover a new possible planet B—which, of course, will always be too far away for humans to actually travel there. But perhaps one day, plants might succeed?

From a botanical perspective, Karst vegetation is undoubtedly already adapted to harsh living conditions; it is accustomed to stress: winter cold, precipitation, drought, sparse soil, overheating of the ground, solar radiation, and the strong bora wind. Similarly, though likely even harsher, would be conditions on an exoplanet. The moral-ecological dilemma: Wouldn't such a plant that visits or relocates to a foreign planet simply present an invasive species? The technical problem: How could plants survive such a long journey? The possibility of survival in such conditions is also a challenge for researchers, making the selection of plants for the journey the first and possibly most important decision. In addition to living plants, such a capsule could also include a so-called "seed bomb," patiently awaiting the end of the interstellar journey...

Opposing the anthropocentristic perception of the environment Astrotop_X emphasizes the interdependence of all living things. In line with Donna Haraway's thoughts on "Chthulucene," it calls for the coexistence of multi-species communities, where non-linear entanglement and interdependence are key to the future of Earth and its ecosystems. Only such deep coexistence can form the basis for constructive speculations about the future. Can plants, without human intervention, become truly autonomous protagonists of interstellar journeys and transcend our (human) physical and geopolitical limitations? In this context, Astrotop_X critiques the Nietzschean posthuman techno-escapism driving dystopian fantasies of space colonization. It highlights the fragility of terrestrial ecosystems, often overlooked in dominant narratives about space, military and economic prestige, and sci-fi fairy tales about a bright future somewhere out there, far from the ugly and depleted landscape A. The algorithm in the capsule includes a data-driven gesture that finally acknowledges—here, we are actually just humans. Alone.

Plants too are complex and nomadic entities, and so, relying on the posthumanist thought of Rosi Braidotti, Astrotop_X encourages a shift beyond the human subject, thus redefining and focusing on the agency of non-human actors. Even though perhaps still through a posthuman artistic-scientific approach, the Astrotop_X capsule allows nature itself to become an active explorer of cosmic futures, breaking the hierarchical boundary between human and non-human. It calls for an examination not only of our impact on the planet but also of how ecosystems (even badly affected, such as the recently fire-ravaged Karst) can navigate complex hyperrealities where Earth may no longer be the only or primary home for living beings.

Astrotop_X Team:
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University of Ljubljana (uni-lj.si), Biotechnical Faculty (BF), and Botanical Garden UL
Institute Cosmolab

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