

WALKING ON THE MOON

EXPLORING ICELAND'S GLACIAL LANDSCAPES AT LANGJÖKULL & VATNAJÖKULL
September 2018 - April 2019

The University of Manitoba Department of Architecture
Masters I Design Studio 2018-2016

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| 1 Sarah Dankochik | SENSING THE UNIVERSE |
| 2 Andrew Fritschij | THE ROCKET BUILDERS |
| 3 Meighan Giesbrecht | RECOVERING SPACE |
| 4 Ben Greenwood | INTANGIBLE ATMOSPHERES |
| 5 Kataun Habashi | INTERPLANETARY STATION: IMAGINING THE IMPOSSIBLE |
| 6 Mackenzie Hammond | LIFE ASTRONAUTICAL |
| 7 Alyssa Hornick | GEO-LOGICAL CIRCUMSTANCES |
| 8 Victoria Lovell | TRANSFIGURATIONS |
| 9 Lexi Morse | SIMPLE GIFTS / SIMPLE LIFE |
| 10 Thomas Nuytten | MANUFACTURED SPACE |
| 11 Behnaz Rafeei | LIVING IN A VACUUM |

GUIDANCE, ASSESSMENT, TRAVEL & ACCOMMODATION

Steve Christer	BA (Hons) AADip FAI, Founding Partner, Studio Granda, Reykjavik
Dr. James Gardner Ph.D.	Professor Emeritus, Clayton H. Riddell Faculty of the Environment, Earth and Resources, University of Manitoba. Adjunct Professor, Department of Geography, University of Victoria University of Manitoba, Vice President (Academic) and Provost, 1991-2001 University of Manitoba, Executive Director, International Relations, 2002 - 2005
Gunnar Guðjónsson	Expert Glacier Guide, Ice Cave Explorer, and Mariner
Jón Gull	Ice Cave Guide
Pat Hanson	FRAIC OAA AAA Owner, GH3, Toronto
Daniel Leeb	Icelandic Space Agency
Carson McCance	MAA, MRAIC, Project Architect, LM
Mió (Horður) Ólafsson	Víðgelmir Cave Owner / Guide
Tanis Paul	BES. Man., M.Arch. Man., Abode Architecture Co., UK
Massimo Santanicchia	Director, Icelandic University of the Arts [Listaháskóli Íslands], Architecture
Valgeir Thorvaldsson	Director, Vesturfarsætrið, the Icelandic Emigration Center at Höfðs

GRAYLINE TOURS

KEX HOSTEL

ERIC THE RED GUESTHOUSE

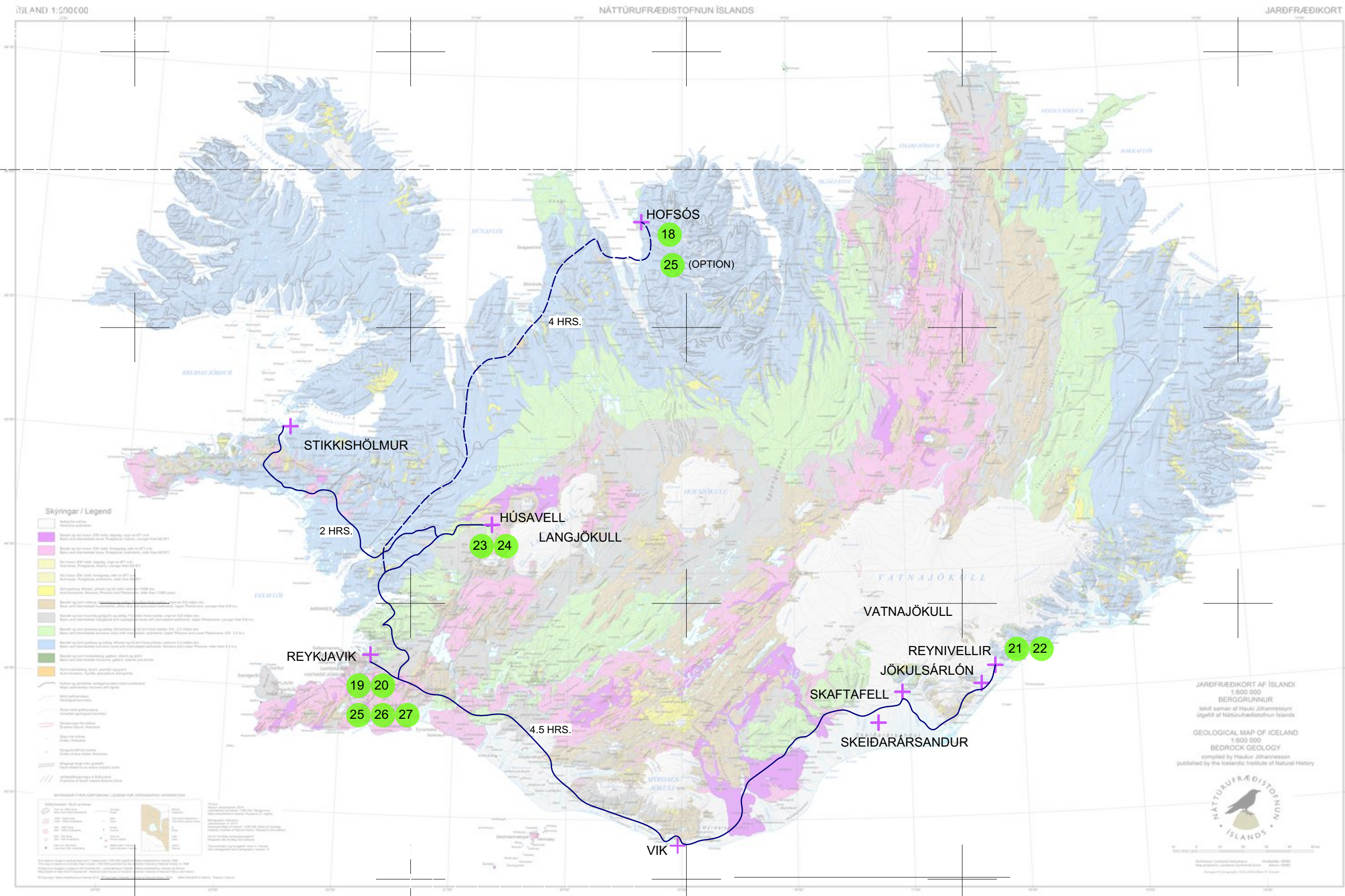
Acknowledgements:

We want to thank Gunnar Guðjónsson who first suggested a collaboration with the guides of Iceland, and their interest in more fully realizing the possibilities of interaction with - and access to - Iceland's high icefields. His enthusiasm, deep knowledge and adventurous spirit continue to be an inspiration to us all.

A discussion about Iceland and space exploration was originated by Daniel Leeb. This perspective posed a big question for us - to paraphrase The Clash . . . "*Should we stay or should we go now?*". The vulnerability and fragility of the Earth and our life on it was cast amongst the clashing urges of survival and the desire to escape.

We want to thank Tanis Paul, a graduate of the University of Manitoba Department of Architecture who has helped organize our Field Trips for her boundless commitment to the University of Manitoba architecture students. We appreciate her as much for being such a powerful and unwavering ambassador for Iceland and for all things Icelandic, and an emissary between Manitoba (New Iceland) and the independent people who inhabit this remote and windswept cultural centre in the North Atlantic.

This exhibition is presented in honour of Ottó Einarsson, our faithful guide for many years. He was considerate, kind, observant, intelligent, patient, and curious, and ever the adventurer.



CONTEXT

This Master's I Architecture Design Studio addresses Iceland's vast volcanic landscapes rising high above the Mid-Atlantic Ridge and bridging the North American and Eurasian tectonic plates. The West, East and North Volcanic zones express the up-welling of magma under heat and pressure as the plates gradually separate. 10,000-year-old remnants of the last ice age, the glaciers float above these rifts in the crust of the earth forming a hybrid landscape of lava and ice. This studio studied the Vatnajökull – including the famous Skeiðarársandur reaching out to the Atlantic Ocean, the Jökulsárlón (Glacier Lagoon) - and the Langjökull.

Five of the projects explore the landscape and propose projects that address tourism, science, and the national parks initiative. They include an observatory (1); a staging facility for glacier hikes to the ice caves (4); a geological sciences centre for research and education (7); and a mobile research laboratories for the glaciers (8); and a hostel and study centre (9).

Six of the projects were inspired by the nascent Icelandic Space Agency initiative and build upon Iceland's history of hosting astronaut training ventures from NASA. These are both paradigms for trans-planetary settlement and also research and training centres in Iceland. (2, 3, 5, 6, 10, 11)

GLACIAL / GALACTIC

The glaciers are being re-formed by the natural forces of erosion, temperature, precipitation and volcanic action. As climate change continues to impact the amalgamation of glacial accumulation, snow melt, and sea level rise, the high-altitude landscapes of Iceland are increasingly fragile, dynamic, and evermore delicate and difficult to access. They are slowly vanishing. Glacial responses to climatic deviations augment the constant seasonal flux of flow and motion – incredible rivers of ice shaping other-worldly landforms of icefalls, caves and lava tubes. The resulting terrestrial landscapes are analogous to the surfaces of the Moon and Mar. They are being considered as test-beds by the European Space Agency (ESA) Concept Operations group (Con-Ops) and NASA for the permanent inhabitation of - first the Moon, and then Mars. Working with the nascent Icelandic Space Agency and together with the ESA and NASA these design proposals explore the idea of settlements in space.

LIFE MECHANICAL

A study of the arid high landscapes of Iceland will afford lenses through which to examine our interface with the annual cycles and the gradual recession of glaciers; the causes, effects and implications of climate change on the arctic region; geophysical actions and reactions; and – extraordinary as it may seem - the possibility of interplanetary settlement simulation. This kind of probe (research / investigation) seems predisposed to technical and systematic solutions – a supporting infrastructure of modular components with which to build the ways and means for rendering the landscape both knowable and also survivable . . . architectural artifacts deployed for scientific and human advance on a living dynamic windswept arid glacial substrate.

LIFE & TIME

Concepts related to mobility, flexibility, self-sufficiency, temporal characteristics and light-weight structures seem obvious, and the intentions and architecture take on a more ephemeral guise. Ideas of a spiritual nature in relation to the scenarios of vanishing glaciers or of astronauts lost forever allude to a substantially different approach. Recognizing our human history of ambition, consolidation, collapse and reconstruction (be it ecologies or civilizations) it is not difficult to imagine a new pragmatic beginning, with our "backs to the world". For these actions, concepts like vanishing, disappearance, stealth, and dematerialization can be accurate metaphors. Programming is unified by a strategy of observation and surveillance, meditation and reflection, and the construction of a new philosophy or framework of thinking through concepts like escape and survival. Exploration by science + physics and geophysical dynamics through analogous landscape lead to speculations on emergent islands and new beginnings.

FIELD STUDIES / GROUND TRUTHING

A study tour that includes both Vatnajökull and Langjökull gave the students a fuller picture of glacial activity. With time spent in Reykjavik, Stykkisholmur, Vik, and Errarbaki, an overview of the larger region was possible. The Field Trip to the Glaciers began on Sunday, 21 October for 5 days and 4 nights, returning late Thursday October 25. Leaving at 9:00 am on 21st we stopped at Vik to see the beach, and then made our way further east to the Glacier Lagoon. Students were encouraged to examine sites along the edge of the zone from Skeiðarárjökull to the ocean, where the river Skeiðará has formed the Skeiðarársandur, one of the largest glacial outfalls in the world.

On 23 October after lunch we traveled to Húsavellir at the western edge of the Langjökull - arriving late in the afternoon and we then spend all day 24th and part of the 25th in the region. At noon on the 25th we traveled to Stykkishólmur - passing near the Snæfellsjökull on the Snæfells Peninsula to visit the Roni Horn's *Library of Water*, and then returned to Reykjavik. The *Library of Water* in is a compelling example of the physical manifestation of observation, as is Richard Serra's *Áfangar* on Víðey Island.

FIGURES ON THE LAND

In the process of our wanderings we acquired a sense of the program strategy - a geophysical backdrop, a refined conceptual armature, inventories of daily use, adjacency diagrams, early massing and formal studies, early intimations of interior spaces, a shadowed sense of interior spatial arrangements, the beginnings of a commitment to material concentrations - all bound into a schematic design of varying degrees of completeness and confidence ranging from vague ideas to self-assured foundations.

PARADOX STUDIO / LIVING WITH AMBIGUITY

I read a brief article over the holidays (BBC News *The secrets of the 'high-potential' personality*) about success in work. The author suggests six indicators and personality traits that mark effectiveness in work environments. I'm particularly interested in four – Conscientiousness, Adjustment, Ambiguity Acceptance, and Curiosity. To me they reference the design studio exactly as indicators of one's own design methodology and work habits. Conscientiousness refers to a commitment to plans and is essential for strategic thinking. Adjustment is also key. This is the reframing of stress as the basis for growth and productivity. Should tasks be well-defined and predictable, or are you comfortable stepping into the unknown? The authors describe the ability to work on projects where the outcome is unknown as having the capacity for Ambiguity Acceptance. Curiosity, ". . . somewhat neglected by psychologists," touches upon our inherent sense of creativity and flexibility.

In the second term the surge towards exactness and high definition offered an ideal platform for exploring these ideals. However confident we are in our work, the suspension of complete allegiance is necessary in order to allow us to maintain the observational state-of-mind in order recognize new information and revelations. And this is the paradox – to be completely confident in ones work, while maintaining an innate curiosity and a desire for the perpetuation of ambiguity.

Ottó Einarsson overlooking the Greenland Sea at Krossneslaug, Norðurfirðir, Westfjords
Photo by Maern Slater-Enns, 2017

