European Commission – Joint Research Centre Via Enrico Fermi, 2749 21027 Ispra (VA), Italy

## COMPOS[T]ING1 (working title) Language & Codes of Nature; Natural Resources

### **Proposal for sculpture**

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Our proposal involves an exploration of building materials, with an emphasis on local, indigenous, and undervalued knowledge, and re-usability and adjustability as elements of adapting to our changing conditions. The project is an attempt to challenge some of the assumptions underlying the contemporary production of our habitations from a material and social/cultural perspective and to rethink the construction industry in the belief that there are better alternatives. Carbon-free buildings will not be much help, even if they are made of carbon-binding wood, if their production depends on massive monocultural reforestation that depletes ecosystems and then must be transported across continents that require massive infrastructure projects to make transportation cheap.

The project intends to question how we source our materials, how we build, what we build, and what happens to materials when a building is no longer needed. Can we construct buildings that require little energy and have a minimal environmental impact? We focus on both vernacular knowledge and the techniques associated with materials across geographies. This involves identifying existing knowledge that can be applied to other regions and identifying knowledge gaps: constructing a map of existing knowledge that orients us toward new discoveries, and that can be shared with others. Constructing this map will require interacting with scientists and local experts2.

We consider materials as living matter (with nature as co-creator) that transform and change their shape over time, and eventually turn into an input for renewal and compose new natural matter. The final large-scale artwork combines various crafting knowledge and materials with a wide range of aesthetic, mechanical, and physical characteristics as well as environmental responsiveness.

We are interested in finding new ways of thinking by using knowledge that is already existing, but that can put into a new context. We want to challenge the existing hierarchies in terms of what are valuable materials and what is valuable knowledge regarding production and creation. The piece refers to the transformative and adaptive properties of low-tech processes instead of rigid and static hi-tech applications. Materials have the capability to remind us of the foundations of human potential in creating and making, and how we can use form and imagination to create stories about our past, present, and future. The sculpture functions as a composition of knowledge that leads us forward and backward at the same time. It is an opportunity to take the knowledge we already possess and use it to choose our path for the future.

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The artwork can be designed for both indoor and outdoor spaces. We propose to create a mixture of both. The outdoor living structure (to be created during the second residency) would have the advantage of a longerlasting display and would bring to bear the idea of the natural transformation of material and the form-ation of nature that can be experienced over time. Complimentary to the physical sculpture, we will create a digital "ghost" or "twin" (which could also be display as a hologram) of the initial sculpture (either scanned partially or as a whole and displayed in the exhibition area as a projection). The digital version would be a fossil form that does not evolve or decompose like the physical one and would provide the basis for speculation on alternative trans-form-ations and evolution according to other environmental scenarios. In addition, the LIDAR scan allows an unfamiliar perception of the sculpture, one from the inside out.

#### Technical Framework

The outdoor sculpture requires a suitable site, which needs to be discussed with the curatorial team. We would like to propose an outdoor site that is both close to the JRC, and also accessible to the general public. One possibility would be the roundabout located in front of the main JRC entrance. An outdoor display would require some other issues to be taken into consideration, like land ownership, public safety, insurance policies, and permissions. Besides permitting natural weathering and growth/decay of the materials used in the sculpture, this added administrative complexity would be repaid by the added value of public outreach and creation of connections between the JRC and the local community. Additionally, a large and easily visible sculpture could serve as an invitation for the public to visit the newly-created JRC visitor center.

If we are commissioned to do the proposed hybrid version, we would need additional technical equipment to display the digital twin, such as a high-quality video projector (preferably an HD projector) or an LED screen with an HDMI port to be connected to a computer. A TOLED screen would be amazing as this enhances the ghostly and see-through effect of the point cloud aesthetic resulting from the three-dimensional laser scanning system LIDAR.



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## Budget

materials	6 000,00 €
technician (local expert):	4 000,00 €
digital display and tech	2 000,00 €
local transport of material	1 000,00 €
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Sum: 13 000,00 €

