

“Environment and Art Award 2022” of the Kummer-Vanotti-Foundation

The past years I have spent researching and experimenting with what I call speculative geology. The creative process is based on simulating the natural process of stone formation, in which “stones of the future” are manufactured.

The first step of my methodology involves the collecting of samples. The location and the criteria after which the samples are chosen has changed over the years and according to the proposal of each project.

My first researches were conducted in predefined places, namely mining areas, which set the geographic scope of my collecting criterias.



Field Work in Bento Rodrigues, BR, 2016



1- Collapse of the Fundao dam supporting the reservoir of the iron ore mine in the village of Bento Rodrigues in the Brazilian state of Minas Gerais. The catastrophe triggered an avalanche of mud and mine waste that left 19 people dead and hundreds more homeless and polluted hundreds of kilometers of rivers in southeast Brazil's Rio Doce basin.

2- The Halkidiki area has a long history of mining for gold and other minerals. Armed attacks, furious protests and ongoing legal battles have left Greece's resurgent gold mining industry in a precarious position. making it the centre of frequent bitter debates between residents and politicians.

My research has evolved to a broader exploration on how natural and humanly modified materials, which are increasingly being brought in contact with each other, will react and fuse over time in the process of rock formation. Samples can therefore consist of sand, soil, shells, pebbles, basalt, coral but also glass, cement, industrially processed aluminium and steel, electronics and plastics and others.



Research and fieldwork, São Paulo, BR, 2019



Collecting material, Berlin, DE, 2022



Collected waste material, Nordfriesland, DE, 2021



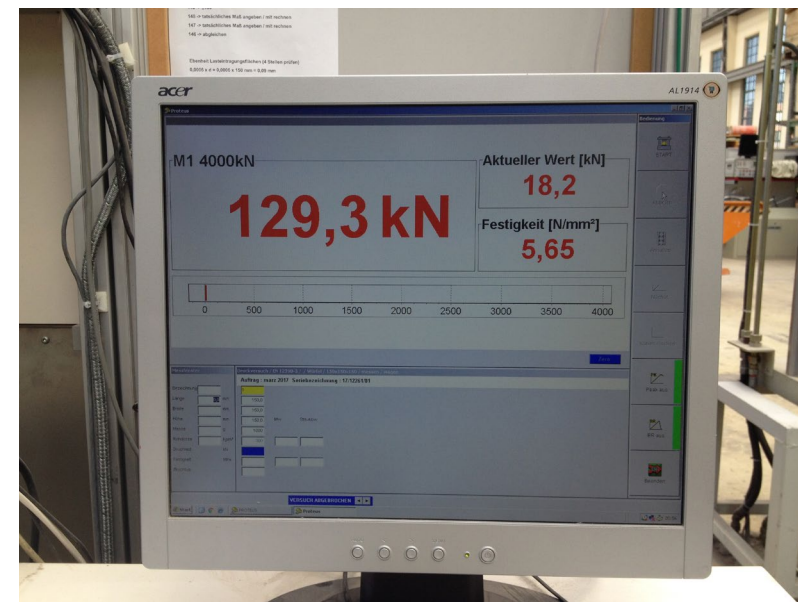
Collected material in the studio, made waste matter, 2021



Standard	Datum	Summe	L.O.I	SiO2	Al2O3	Fe2O3	MgO	CaO	Na2O	K2O	TiO2	P2O5	SO3	As	Ba	Ce	Standard	Co	Cr	Cu	F	Ga	La	Mn	Nb	Nd	NI	Pb	Pr	Rb	Sm	Sn	Sr	Th
Meßbereich			bei 1000°C	16,0-90,0	0,50-30,0	0,30-17,0	0,05-43,0	0,1-35,0	0,10-6,5	0,10-5,0	0,05-2,6	0,05-1,2	0,05-0,3	4-110	20-1400	20-500	Meßbereich	3-210	10-3000	7-1200	500-15000	3-60	10-1300	30-2500	5-170	10-650	3-2000	5-280	10-200	10-3500	3-100	20-900	10-1400	5-1000
Name		%	(%)	(%)	(%)	(%)	(%)	(ppm)	(ppm)	(ppm)	(%)	(%)	(ppm)	(ppm)	(ppm)	(ppm)	Name	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
				<16	<0,50	<0,30	<0,05	<0,10	<0,10	<0,10	<0,05	<0,05	<0,05	<4	<20	<20		<3	<10	<7	<500	<3	<10	<30	<5	<10	<3	<5	<10	<10	<3	<20	<10	<5
				>90,0	>30,0	>17,0	>43,0	>35,0	>6,5	>5,0	>2,6	>1,2	>0,3	>110	>1400	>500		>210	>3000	>1200	>15000	>60	>1300	>2500	>170	>650	>2000	>280	>200	>3500	>100	>900	>1400	>1000
REFERENZ II	15.7.16	80,511	0,37	55,57	10,19	3,37	1,42	2,24	2,26	3,83	0,58	0,24	0,01	5,7	869,3	127,1	REFERENZ II	53,5	12,4	4	1581	15	65,8	636	27,1	35,7	<3	13	14,7	149	8,3	7,5	303	9
REFERENZ II A (Eichung vom 13.9.11)	16.9.11	80,099	0,37	55,16	10,15	3,47	1,43	2,23	2,21	3,76	0,57	0,26	0,01	6	895,5	134,8	REFERENZ II A	54,2	12,5	4	1763	15	59,2	631	28,2	36	2,9	13	10,4	151	8,7	7,7	314	6
REFERENZ I	15.7.16	83,162	0,37	57,33	10,66	3,47	1,47	2,23	2,40	3,96	0,57	0,24	0,02	5,9	891,3	114,6	REFERENZ I	58,9	12,5	2	1585	16	46,9	634	24,4	26,6	<3	14	9,8	156	8,3	6,4	311	9
REFERENZ I A (Eichung vom 13.9.11)	16.9.11	82,144	0,37	56,72	10,49	3,44	1,45	2,19	2,32	3,89	0,56	0,24	0,02	7,4	905,9	112,3	REFERENZ I A	60,5	13,6	3	1645	16	53	636	24,4	33,2	2,7	14	11,8	158	8,5	6,6	318	7
7	15.7.16	92,491	7,63	47,11	19,86	12,75	0,35	<0,10	0,30	3,17	0,98	0,09	<0,05	8,5	451,5	40	7	33,1	255,6	32	<500	25	110,6	210	12,3	64,2	84,8	23	23,6	139	6,8	<20	51	13
6	15.7.16	103,922	7,16	58,08	24,80	7,13	0,59	<0,10	0,26	4,28	1,35	0,06	<0,05	<4	599,9	71,4	6	3,4	296,6	35	<500	31	54,3	272	15,4	40,2	47,2	18	<10	179	8,1	<20	44	17
4-1	15.7.16	142,675	0,19	38,41	3,55	97,41	0,11	<0,10	<0,10	0,41	0,22	0,15	0,09	63,2	1911,6	27,9	4-1	384,3	47,2	237	2246	9	<10	12455	5,3	16,7	75,9	34	<10	16	3,1	<20	15	11
4	15.7.16	118,456	2,49	35,23	2,01	77,04	0,07	<0,10	<0,10	0,11	0,13	0,14	<0,05	37,1	869,4	49,2	4	71,8	40,9	85	1818	3	<10	7969	<5	11,2	32,2	71	<10	<10	6	<20	42	6
3	15.7.16	103,1	6,49	60,39	22,80	7,63	0,50	<0,10	0,24	3,68	1,10	0,07	<0,05	5,3	513,9	63	3	3,9	263,1	38	<500	27	38,2	238	13,6	29,7	52,2	17	<10	151	7,1	<20	57	15
2-1	15.7.16	86,378	3,77	35,36	3,39	43,10	0,05	<0,10	<0,10	0,11	0,10	0,14	<0,05	12,2	58,9	21,1	2-1	<3	39,3	12	1611	<3	<10	899	<5	15,7	11,8	8	<10	<10	<3	<20	<10	<5
2	15.7.16	91,678	5,96	53,25	21,52	8,63	0,25	<0,10	0,15	1,30	0,43	<0,05	<0,05	<4	496,1	188,4	2	18,6	31,8	14	<500	18	<10	279	7,8	14,6	26,1	8	<10	29	9,1	<20	<10	14
1	15.7.16	116,863	2,19	42,75	2,74	67,86	0,09	<0,10	<0,10	0,20	0,12	0,11	<0,05	26,8	631,6	<20	1	61,6	33,6	60	1823	4	<10	4718	<5	10,6	26,1	26	<10	<10	<3	<20	<10	11

Details of the project proposal - process

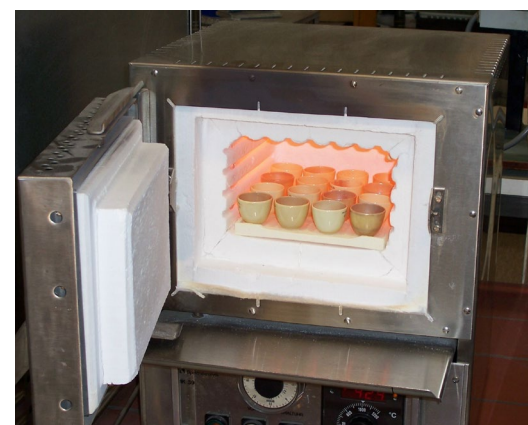
The stage of simulating the rock formation process follows. Based on the scientific knowledge in petrology, this metamorphic process is influenced by three main parameters which are temperature, pressure and the surrounding chemical environment. In nature changes of these parameters can originate from a variety of causes such as volcanic action or sedimentation. Also the timespan in which these changes occur vary from momentaneous to a course of millions of years. WI have been varying the physical parameters, temperature and pressure.



Druckprüfungsmaschine. Applying right pressure precess in cooperation with KIWA gmbh (materialprüfungsanstalt) in Berlin, DE



Druckprüfungsmaschine. Applying right pressure precess in cooperation with KIWA gmbh (materialprüfungsanstalt) in Berlin, DE



Texts of waste material being exposed to right temperature (800°C) in a special oven cooperation with the Institute of Applied Geosciences and the Geochemical Laboratory, TU Berlin

Details of the project proposal - process



Separating the samples in my Studio, Berlin, DE

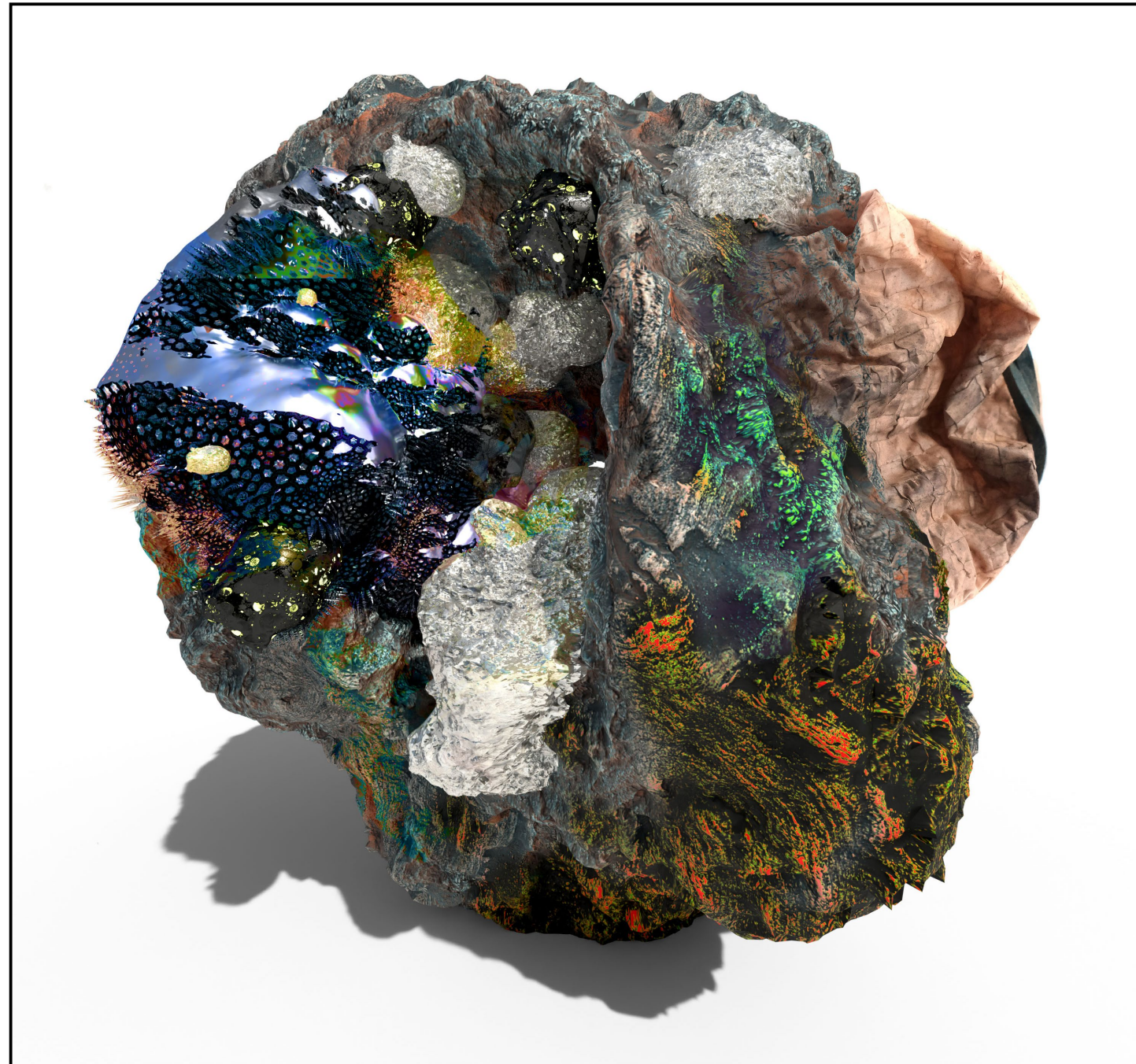


view of the desktable in my Studio



For the “Environment and Art Award 2022” a set of three rocks will be made using samples consisting of human-modified waste collected in the region (e.g. plastic, cement, electronic waste) and natural (e.g. sand, soil, shells) materials.

The stones are the result of the interaction between the materials in the simulation of the geological process. For that reason I can design some aspects of the stone (the shape, the size, some textures) but the final result is not totally predictable and will not be exactly the same as the 3D model below. Each stone is unique and cannot be replicated.



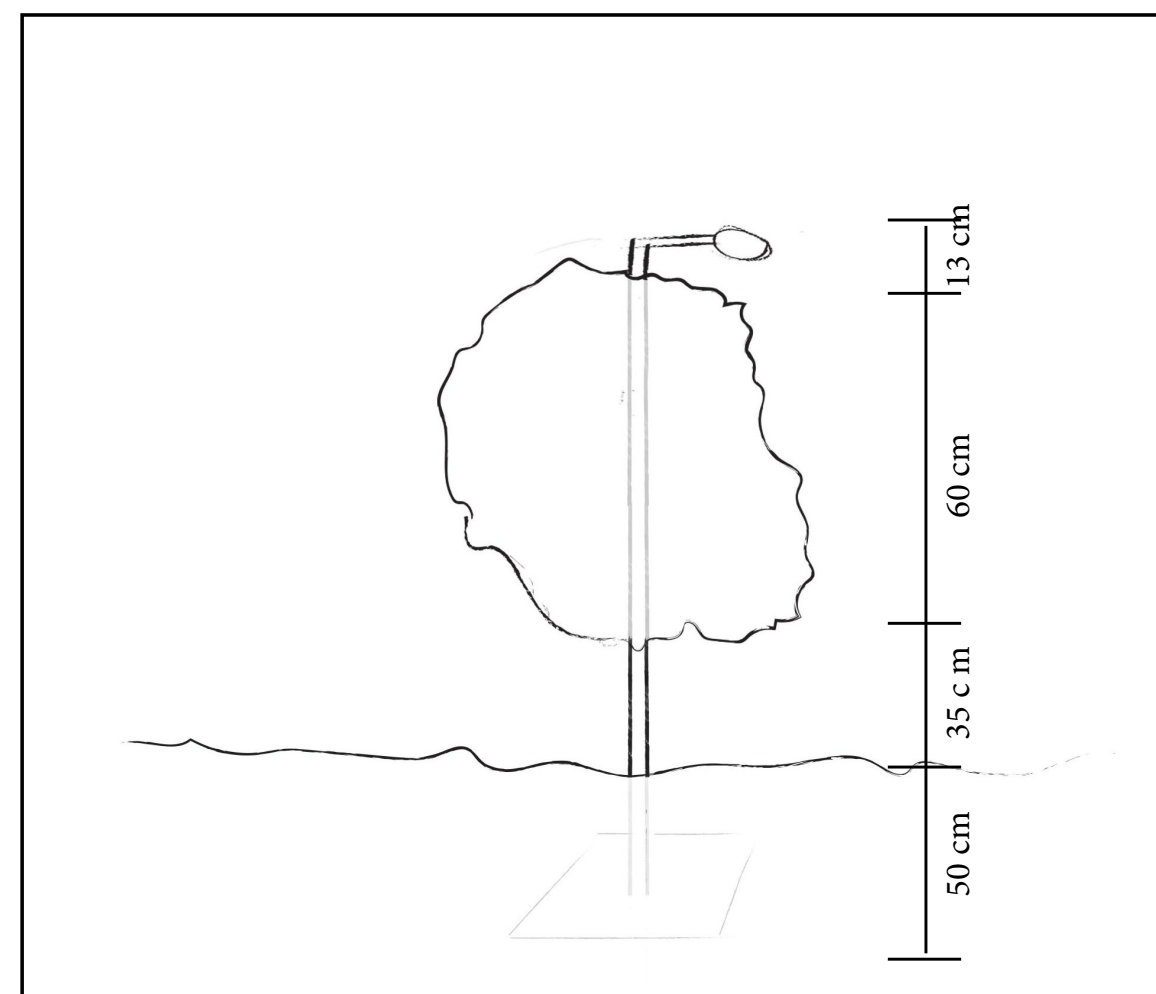
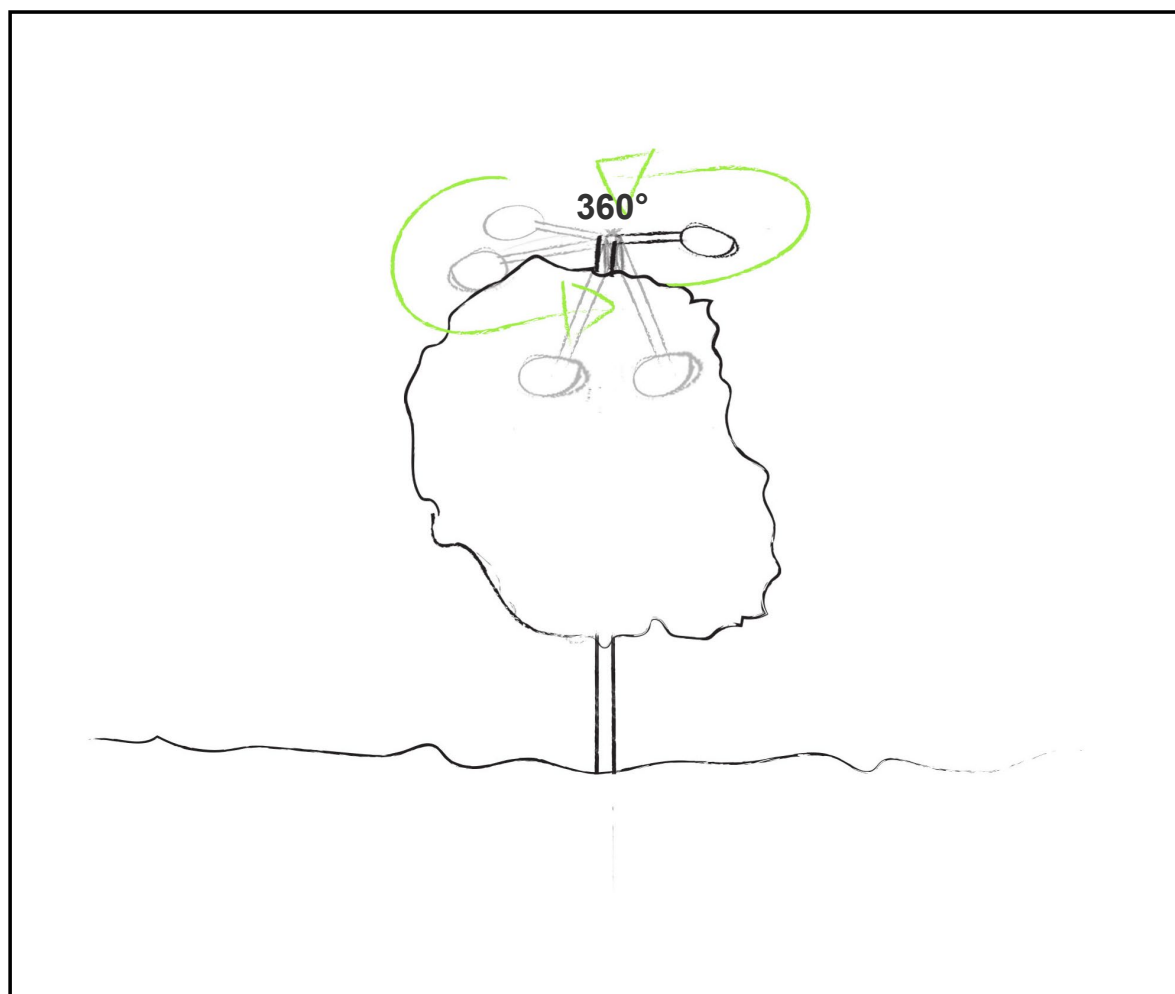
STONE 01_3D simulation of a possible outcome.

The stones will have a maximum size of 60 cm in height, 60 cm in width and 70 in length.

The rod will be made of stainless steel or similar non oxidising and weather resistant metal. A small foundation in the ground will provide stability.

The magnifying glass has 360 degrees of movement and can be moved up and down, allowing the stone to be viewed from various angles by people of different sizes.

Due to its manufacturing process (high pressure and temperature) the stone is weather resistant and can be touched by visitors.





Simulation of the artwork at the Environmental Sculpture Park on the Island Grafenwerth using the 3D model Stone and two pieces from the 'Shifting Geologies' series.

