

# **ONE WHITE CUBE**

## **Concept statement**

*Guy Keulemans & Kyoko Hashimoto*

This cubed-shaped furniture is part of a broader attempt to uncover the extended relations of materials. It is a polemic against the hylomorphic style of design and production that conceptually separates form and material (a style that draws the eye towards surfaces, hiding the interrelated, complex, and often polluting, burdensome materialities of real world production).

This is not just a story of ecological effect, but ecological origin: so much of our material resources come from animal and plant based sources. Concrete comes from limestone that comes from the crushed bodies of sea animals, sedimented into rock over millions of years. Spray paints and plastics derive from petrochemicals, extracted from petroleum that is refined from crude oil, made from millions of years of dinosaur bones, ancient planktons and plants, compressed underground. What we consider the common and artificial materials of the built environment, truly originate in the life and death of animals.

The expression of material production conditions, the scope and scale of materials and processes required to produce an object, should not be limited to the superficialities of external surfacing. Yet, this is conventional practice. Many designers obsesses over surfaces, and use superficial features, reflection management technique and characteristics of smoothness and gloss to direct attention to surfaces. But, because that limits comprehension and sensibility of the material processes and energies required to produce objects, it should be condemned.

We propose our task is to sensitise the ecology of extended material relations and bring their complex and chaotic qualities into perception through form.

## **Materials**

*The materials on this list are suffixed with superscript numbers that refer to footnotes detailing the composite materials, to the elemental level when known. Please always include the associated footnotes when listing the materials.*

Tasmanian oak<sup>1</sup>, MDF<sup>2</sup>, polyurethane spray foam & paint<sup>3</sup>, concrete<sup>4</sup>, various other paints<sup>5</sup>, silver leaf, shellac<sup>6</sup> and PVA glue<sup>7</sup>

<sup>1</sup> a type of wood, a composite of lignin (organic cross-linked phenolic polymer) and cellulose (organic polysaccharide compound) in a porous, fibrous structure found in tree stems and roots

<sup>2</sup> medium-density fibreboard (unknown wood or paper fibres<sup>1</sup> in a resin binder, typically urea-formaldehyde<sup>8</sup>)

<sup>3</sup> isocyanate (treated amines extracted from ammonia<sup>9</sup> and phosgene<sup>10</sup>) and some kind of polyol resin<sup>11</sup> with dimethyl ether (dehydration of methanol<sup>12</sup>) with or without a hydrocarbon propellant<sup>13</sup>

<sup>4</sup> cement<sup>14</sup>, sand (various granular minerals, commonly silica and calcium carbonate<sup>15</sup>) and aggregate (various rocks and minerals from an unknown source)

<sup>5</sup> unknown petrochemical<sup>13</sup> polymer colourants, plus some metals, with or without a hydrocarbon<sup>13</sup> propellant.

<sup>6</sup> the resin secreted by the female lac bug (*Kerria lacca*) and ethanol (either fermented sugar yeasts or an industrial petrochemical<sup>13</sup>)

<sup>7</sup> polyvinyl acetate (ethylene<sup>16</sup> reacted with acetic acid<sup>17</sup>)

<sup>8</sup> urea (organic compound made from ammonia<sup>9</sup> and carbon dioxide) and formaldehyde, an oxidised methanol (carbon monoxide and hydrogen, a petrochemical gas<sup>13</sup>, reacted with zinc and copper catalysts)

<sup>9</sup> a naturally occurring substance now most commonly sourced as a byproduct of coal-fired power plants<sup>13</sup>

<sup>10</sup> an industrial reagent made from carbon monoxide and chlorine gas (made via the electrolysis of salty water, a process that also creates caustic soda, or lye).

<sup>11</sup> an alcohol with multiple hydroxyl groups (likely petrochemical origin<sup>13</sup>)

<sup>12</sup> synthetic gas made from a hydrocarbon feedstock, either natural gas<sup>13</sup>, coal<sup>13</sup> or a biofuel source

<sup>13</sup> fossil fuel (the bodies of plants, animals and other living organisms anaerobically decomposed over millions of years underground)

<sup>14</sup> cooked and crushed limestone<sup>15</sup> with a pozzolanic material (probably fly ash, a coal<sup>13</sup> fired power plant byproduct)

<sup>15</sup> calcium carbonate (shells, corals and the bodies of other sea animals composited into rock over half a billion years or so)

<sup>16</sup> fractionally distilled petrochemical hydrocarbon<sup>13</sup>

<sup>17</sup> also know as vinegar, produced by the natural fermentation of plant products or synthesis from a petrochemical<sup>16</sup> using a palladium catalyst