Clouds of Steel, Curved Spaces. Carlo Borer's "Clouds"

by Peter Lodermeyer

Four convex lens-shapes, flattened-out, appearing almost round from a top view, and linked with one another in smooth transitions, each forming a wall sculpture. When looking at them from the side, we are astonished by the unexpectedly slight spatial depth of only about 25 centimeters. The floor sculptures have been shaped more complexly: Each is a handful of compressed, stretched round forms and ellipsoids that seem to merge into one another or else develop from one another to create a confusing conglomeration of shapes. Since 2010, Carlo Borer has been dealing mainly with these rather small-format works, which formally clearly differ from his previous, often large size, works. Whereas the earlier pieces from the "Loops and Lofts" and "Transformers" series consisted of coiled and twisted steel bands or else of hollow cones frequently perforated and cut at a slant with sharp edges and clear contours, the new wall or floor sculptures are all multi-part, though closed, volumes exclusively displaying rounded, gently progressing surfaces. As a title for the series, they also bear the equally fitting and paradox name "Clouds". This is fitting in as much as, with their round forms extending into one another, they remind us from a distance of the typical, swelling billows of cumulus clouds, their highly polished, reflecting surfaces, exuding a great lightness. The title is paradox since this is solely a visual lightness, not a material one, considering that, after all these are *Clouds* made of steel sheets, which, depending on their size, may weigh anywhere from 15 to 20 kilograms. With respect to the works for the wall, we tend to forget this weight more than we do for their pendant pieces positioned on the floor.

This paradox caused by the material is certainly nothing new, being intrinsic to the genre of sculpture, which can hardly avoid portraying such a weightless, fleeting, persistently changing structure as a cloud, by using a solid and lasting material. Surprisingly, clouds are in no way only found in painting, they also have their tradition in sculpture, albeit mostly as merely decorative accessory. We need only think of the countless clouds of marble and sandstone that show up everywhere in Baroque sculpture when the point is to depict the hereafter or the intrusion of transcendence into our reality. Thus, for example, Bernini's "Chair of St. Peter" in St. Peter's Cathedral is surrounded by masses of lively clouds, and his St. Theresa floats

upwards to mystical ecstasy in the Roman church of St. Maria della Vittoria, bedded upon a cloud of stone.

There is none of this with Borer's *Clouds:* The nature of these clouds has nothing to do with meteorology, let alone metaphysics, but it does have something to do with media technology. These days, the title *Clouds* inevitably evokes associations with the still very young system of cloud computing. The authorities responsible for standardization define this as follows: "Cloud computing is a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage systems, applications, and services)."It is not necessary to enter into this any further here: may it suffice to note that the name *Clouds* gives a clear indication of the odd progressions of form, the *morphing* of the complex roundings melded into one another: generated by the computer namely or brought about by Cyberspace, to use a term stemming from the euphoric phase of the digital revolution that is slowly falling into disuse today. While gazing at these sculptures with their roundings baked together and their concave transitions elegantly smoothing over any cutting edges, we detect that in this case, there have been no traditional sculptural design processes at work (drawings, creations of bozzetti mock-ups made of clay, plaster, wood, etc.). In fact, Carlo Borer shapes his works in all planning and design stages with the aid of CAD, *computer-aided design.* Only at a first fleeting glance do they seem to stand in the tradition of biomorphic abstraction of the likes of a Hans Arp or Henry Moore. Yet a comparison shows only too clearly that Borer's forms with their odd topology, inorganic compressions and distortions of forms, are not indebted to an aesthetics of living things. Their formal *strangeness* - to use this concept borrowed from elementary particle physics - does not come from the realm of the biological, but from computerized modeling procedures. These are becoming increasingly more complex, as is shown by the more recent *Clouds*, which are referred to as *Clusters* in their individual titles. They differ from the earlier variations in that the axes of rotation of their individual partial forms are no longer arranged in parallel fashion but rather diverge to part in different directions, which results in a summation of complicated overall forms that is visually more difficult to understand.

One possible approach to interpretation, with which some viewers might attempt to explain the strange topological relationships in the conglomeration of forms of the *Clouds*, would be the idea that this is about the partial or complete take-over of found objects from other, non-artistic contexts. Carlo Borer, over and over again, plays with this misguided notion, most clearly with his *Noreadymades*, whose name states the program: What looks like a functional machine part removed from its original context of usage, is actually pure invention. In a toned-down form, this noreadymade aspect is relevant also in the *Clouds.* Particularly with the early, relatively flat works *Cloud 1, 2 and 3* we might hit upon the idea that this is about assemblages of convex mirrors, which might have some sort of function in other contexts, but what function is this? This assumption stubbornly arises, but just as stubbornly, it remains unverified.

The media philosopher Friedrich Kittler, who, being a theorist, has dealt with the most varying aspects of the computer as the contemporary universal medium, once stated in a lecture: "Ever since completed buildings began appearing like scale factors of *computer-aided design,* by which these buildings were designed on a miniature scale, the architectural practice itself has subordinated itself to the medium that is penetrating more and more into architectural products." What has been stated here with respect to architecture also applies to Borer's sculpture in as far as he has employed the newest CAD possibilities. A person who conceives sculptures, but in doing so, does not depart from the components of handcraft, material and form, but rather, from the digital calculation of Bézier curves or other things, consciously subjugates himself to the media specific aesthetics of the computer. Carlo Borer very decisively does this - but he employs it idiosyncratically. Kittler emphasizes that the CAD makes a systematic "coincidence of practice and product" possible, "which robs the designing at the same time of its old handcraft skill or human touch." It is precisely that handcraft skill, however, which Borer, surprisingly, reintroduces into the technical execution of his sculptures. It would be possible, with no further ado, to provide the forms of the *Clouds* generated in virtual space with a corresponding computer-aided materialization, for example, by using 3D-printers or CNC (computerized numerical control) millers. But Borer prefers to execute these in hammered and polished stainless steel. This, in turn, means that between the design and execution of the sculptures a media-based translating process takes place from the most highly advanced contemporary computer application to the manual practice

of metal working with the hammer, which is a good 8000 years old. The challenge for the artist and his assistants consists in the fact of bringing steel sheets with a thickness of 1.5 mm as closely as possible to the immaterial form that comes from the computer, against the inertia and resistance of the material. The minimal distance between calculated perfection and its handcrafted translation is revealed in the slight irregularities on the surfaces, only recognizable anyway in the continuous forms of the reflections visible upon them. Here, the attentive viewer may discern that the *Clouds*, contrary to the way they look at first, are not at all industrial products, not "design", but handcrafted sculptures.

With the reflections, a further aspect of the *Clouds* is addressed. Inherent to the artist's decision to carry out his sculptures in high-gloss, polished stainless steel is the fact that the viewer, facing these works, never only sees the forms in the room, but always the room itself as a reflection on the surface, or illusionistically, in the object. And it is not only the room he sees, he also sees himself, many times. The various convex and concave surfaces reflect the outside space and thus, the viewer's body is shown each time in a heavily compressed, curved, distorted, non-Euclidian form. Even parts of the object itself are reflected by other parts, and vice versa; the *Clouds* thus reflect themselves. Like distorted parallel spaces the reflected images appear next to one another, changing with each minute movement of the viewer, melding into one or dissolving. Although the reflections have a greater effect on photographs than in reality, where the material and volumes of the sculptures hold their own against them much better (due to the lack of spatial and haptic information, our brains evidently give greater weight to the presence of the reflections in the two-dimensional photographic reproductions), they are nevertheless inevitable visual components of the *Clouds.* Thus, the question arises concerning where the immanent borders of the work of art may be found. Does the sculpture only consist of material and form or are the changing mirror images resulting from the respective exhibition, contexts and the changing vantage point of the viewer also part of it? Reflection as an optical mirroring changes to a reflection in the sense of a contemplative discourse with the at once fascinating and confusing formal and substantive aspects of Carlo Borer's *Clouds.*