

Sit-in! Sitting in the Olympic Park Seating furniture of the Olympic Games 1972

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Eight seats from the buildings of the Olympic Park were handed over to the Chair of Conservation-Restoration at the Technical University of Munich in order to protect them from the probable disposal as bulky waste. The chairs were stored in various ticket booths near the stadium that were no longer used.

The seating furniture includes a stool, two up-holstered chairs, a swivel chair with a glass fibre-reinforced (GFR) plastic seat shell, two other chairs with plastic seat shells and two seat shells for the stands of the stadium from the 1990s. All the furniture was cleaned, checked for possible progressive damages and the plastics were analysed using FTIR- and NIR-spectroscopy. The manufacturers, the dealers and the original locations within the park area were re-searched. The chairs were produced in West Germany, East Germany and Italy, some of them designed by famous designers and furniture producers of the 1960s and 1970s.

Condition

All seating furniture is in good to very good condition. The upholstery was stained from use and storage. All metal components show weak to strong traces of corrosion, especially the iron components of the stool rust strongly. The plastic coating of one of the upholstered chairs is torn open on one leg. The seat of the green chair is scratched by use and shows different degrees of gloss. In addition, there is a deeper damage on the back which led to a whitish discoloration of the green plastic. In the swivel chair, glass fibres have come loose from the back of the backrest. All the furniture was very dusty and covered with spiderwebs and in some cases showed dark traces of abrasion. The cleaning was done by careful vacuum cleaning followed by wiping with microfibre cloths – dry for the metal parts and slightly moistened for plastic parts.

Manufacturers

The seat shells of the Stadium from the 1970s were designed by Horst Fleischmann, Günter Behnisch and Frei Otto and produced by WESIFA Stahlrohr GmbH in Bad Oeynhausen, Vlotho.¹ However, the seat shells exhibited here date back to the 1990s and the manufacturer is unknown. The GFR chairs come from Herman Miller company and are versions of the famous Charles Eames chairs. The swivel chair was purchased through „Die Einrichtung“². The stool comes from the company L.&C. Arnold (now L&C Stendaland L.&C. Arnold System), the green chair is by Schröder&Henzel-

mann³ from Vlotho Uffeln-West (no longer existent) and the upholstered chairs are by Castelli Italy, designed by Giancarlo Piretti.⁴ The current covers were fitted in Munich.

Original locations

As can be seen from photos taken in 1972, the beige upholstered chairs could have been placed in the entrance area of the Olympic Hall, the green plastic chairs inside the Hall. The original seat shells from the Olympic Stadium had no backrests as can be seen on photos of 1972.

The other locations are based on assumptions: The stool may have been used to equip the flat student buildings, the student level buildings and the student tower. The ticket booths may have been equipped with it at a later date. The GFR chairs may have been in the old canteen. It is also uncertain if some of the Castelli upholstered chairs were located in the conference rooms below the grandstand in the



*Fig. 1 Chair by Herman Miller (produced by Vitra).
Photo: Veronika Mayr*



Fig. 2 Stool by L. & C. Arnold. Photo: Veronika Mayr



Fig. 3 Chair by Castelli Italy. Photo: Veronika Mayr



Fig. 4 Chair by Herman Miller (produced by Vitra). Photo: Veronika Mayr



Fig. 5 Chair by Schröder und Henzelmann (S&H). Photo: Veronika Mayr



Fig. 6 Replica from the 1990s. Photo: Veronika Mayr



Fig. 7 Original seat shell. Photo: Kilian Stauss, Munich

Olympic Stadium (west side). The same seat shells as in the Stadium were also found in the Olympic Swim Hall.⁵

NIR und FTIR analysis

Material analyses of the plastics were performed with a SCIO NIR-spectrometer⁶ and an Agilent 4300 handheld FTIR-spectrometer.⁷

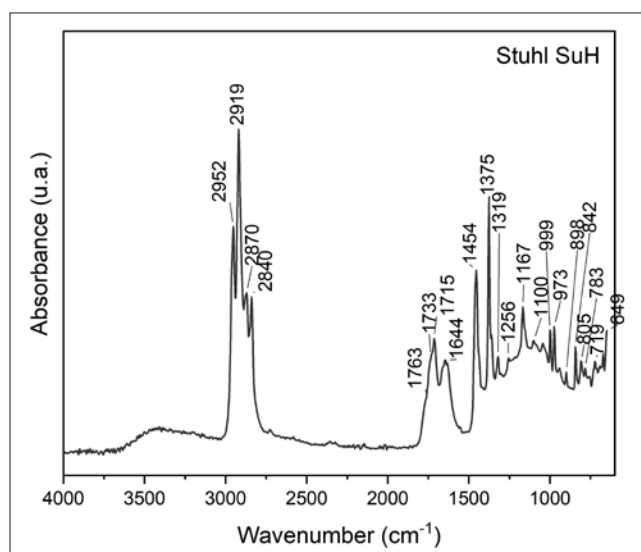


Fig. 8 FTIR spectrum of the green chair (S&H)

Both the seat shells and the seat surface of the green chair are polypropylene (PP, see FTIR spectrum below). The IR-analysis of the fibreglass-reinforced seat surfaces was not clear. NIR determined un-saturated polyester re-sin (UP) (which is indicated by its hardness and yellowed ageing state), FTIR determined possibly PP. A test with another method such as FTIR in absorption mode should give clear results. The optical evaluation of polyester (PET) for woven covers of the upholstered chairs could not be confirmed. A measurement of upholstery was not possible because the fabric strongly scatters the radiation and therefore too little reflected radiation was detected. For the same reason a measurement of the cover of the stool was not possible.

The analyses were carried out by Dr. Clarimma Sessa (FTIR) and Susanne Brunner (NIR).

Bibliography

- HAAS, Otto; KÖSLER, Wolfgang (Hrsg.). 1972. Offizieller Olympiaführer der Spiele der XX. Olympiade München 1972. Organisationskomitee für die Spiele der XX. Olympiade München 1972. Munich: Atlas Verlag.
- AUSCHERMAN, Amy; GRAWE, Sam; Ransmeier, LEON. 2019. Herman Miller – a way of living. London: Phaidon Press Limited.
- Landeshauptstadt München, Referat für Stadtplanung und Bauordnung. 2019. World Heritage Site Olympic Park. Information event regarding the application on 3 April 2019.

¹ Information at auction of: Quittenbaum.de.

² „Die Einrichtung“ Beringer und Koettgen was a renowned furniture store in Munich until 2003.

³ „At the time, S&H was Europe’s largest manufacturer of object furniture (Olympic Stadium Munich, Frankfurt Opera, ICC Berlin)” <<http://studiomichaelhillier.de/vita.html>>.

⁴ All the manufacturers mentioned could be identified by inscriptions or stickers on the underside of the chairs.

⁵ Written correspondence with Prof. Kilian Stauss from stauss processform.

⁶ SCIO™, Consumer Physics Inc., Israel; SCIO-App + Samsung Smartphone.

⁷ IR spectra were measured in ATR mode using the spectrometer equipped with a Diamond ATR Interface. The spectra were collected in the mid-infrared region (from 650 to 4000 cm⁻¹) by recording 32 scans per spectrum at a spectral resolution of 4cm⁻¹. The measurements were performed holding the instrument by hand as close as possible to the surface. The time required to perform a full scan was about 15 seconds. No damages and/or marks due to the contact of the crystal with the specimen were observed.