

## DEAD SEA SCROLLS IN TRANSIT

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The Dead Sea Scrolls are more than ever the center of attention regarding important worldwide exhibitions. The new ancient documents loan policy of the Israel Museum has increased the Scrolls' travel demands. They are in rotation more than ever was expected and the effect of this dissemination has been the growth of distinguished borrowers. The highlight of the new policy and its effects was demonstrated by the exhibition of the 4-meter-long Temple Scroll in the exhibition entitled "Die neuen Hebräer - 100 Jahre Kunst in Israel" ("The new Hebrews - 100 years of art in Israel") by Martin Gropius-Bau in Berlin, 2005. Apart that the shipment of the scroll was a complicated engineering project this brought forth the beginning of an extensive conservation research agenda of monitoring and engineering shipment preparations for the scrolls during transit. Parameters targeted for research were temperature, relative humidity, shock, vibrations and acceleration. Engineering specialists and experienced logistic companies were reviewed and chosen to serve as research consultants, and packaging methods and materials were considered and tested. Two kinds of data loggers were used, one for temperature and relative humidity – *Data scribe logger* and the other for vibrations and acceleration - *Shock logger*. With the aid of both instruments every minute the Scroll was in transit was recorded and analyzed. Our research data base has grown from monitoring all kinds of art in transit. The Scrolls are one of many in our art in transit research agenda and we have also collected control or background data where art objects remained in the museum. A profile of the surrounding factors during transit could be drawn from the data and it was found that the most problematic factor was the decrease of relative humidity soon after take off. Different insulating materials and packing methods were tested and shown to be more effective for reducing thermal rather than and relative humidity changes. A successful solution for stable relative humidity packing was found recently by isolating the scroll inside the package with a polyethylene envelope & Art Sorb® sheets. In light of our results, today scrolls and other sensitive art objects can be safely shipped any place on the globe with stable and controlled internal surrounding conditions.