

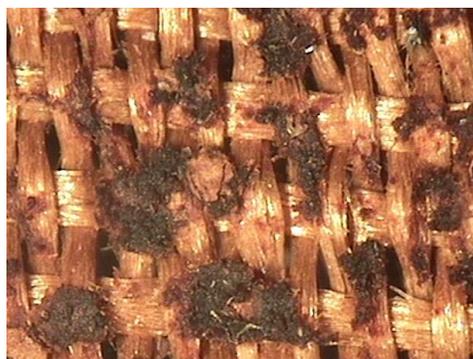
Textile Relics Conservation and Effective Cleaning Methods  
- Conservation of the Korean Youth Baseball Tournament Championship Flag -

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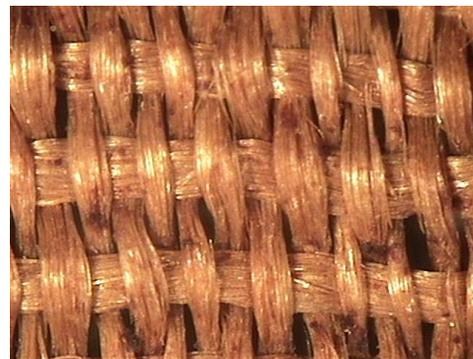
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Introduction: Choosing cleaning method appropriate to the types of soil is crucial for conservation of textile relics. This study analyzes the effectiveness of the cleaning methods applied to the Korean Youth Baseball Tournament championship flag, Korean cultural asset no. 498, which is currently owned by the Korean Sports Council. This championship flag was first given to the winning baseball team during the Chosun National Athletic Meet in July, 1920 and therefore carries importance in Korean sports history. The conservation process began with the following goals: to understand the current condition of the relic, to reduce the soils, to repair and reinforce the deteriorated areas, and to prevent further major damages to the relic.

Method: The conservation process started out by analyzing the types of contamination on the material of the relic. To determine the most effective method of cleaning for the actual relic, samples of excavated fabric pieces (in similar condition as the actual relic) were used in pre-experimentation. The samples were processed through the following methods: vacuum cleaning, kneaded rubber eraser cleaning, immersing liquid cleaning. The samples were then analyzed for the change/maintenance of its original shape, weight loss, and stiffness. The pre-experimentation results determined cleaning methods for each contamination type on this fabric of the relic. Particulate soil was removed with vacuum cleaning, dark and strongly adhered soil with kneaded rubbing, and oil-based soil with organic solvent.



(a) before art eraser cleaning.



(b) after art eraser cleaning.

<Fig. 1> Video microscopic images before & after kneaded rubber eraser cleaning,  $\times 100$ ).



(a) before kneaded art eraser cleaning (b) after kneaded art eraser cleaning.  
<Fig. 2> Scanned images before & after kneaded rubber eraser cleaning

Results: When the surfaces of the pre-experimentation samples were scanned with 1200dpi resolution scanner, vacuum cleaning resulted in the least amount of shape change and damages on the fabric. Kneaded rubber eraser was most effective on particulate soil, but the adhesive quality of the eraser slightly damaged the surface. Nevertheless, this method is useful because it can be applied to an isolated area on the relic. Immersing water cleaning can cause swelling of the fiber and can cause weaker fibers to fall out, but when applied to the appropriate fiber and condition, can effectively and wholistically clean the relic. The cleaning method for the Korean Youth Baseball Tournament Championship Flag (Registered Cultural Asset no. 498) was determined according to the pre-experimentation results. The focus was to maximize efficacy and minimize the damage. First, loose soil particles were targeted through vacuum cleaning, but to the naked eye, most soil remained. Next, when cleaned with the kneaded rubber eraser, stains were removed conspicuously. Used for removing charcoal and pastels, this eraser is soft and moldable by hand. This study analyzed the component of this charcoal eraser and compared it with the general pencil erasers to understand its effectiveness on fabric cleaning. Immersing solvent cleaning was applied last to remove the remaining oil based solvents. This paper presents the above conservation process with various data and photographs.

#### References

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