

The Scientific Backbone and Cultural Veins: Analyzing the Creative Characteristics of Li Yuan's Popular Science Works, with a Focus on *Visiting the United States*

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Abstract: Li Yuan, an astronomical popular science writer, has produced a substantial and diverse body of popular science works. His works often employ a wealth of data to ensure precision, utilize numerous images to enhance expressiveness, and emphasize the exploration and presentation of the historical, cultural, and social implications of scientific content. These creative methods rely on extensive data support, a result of Li Yuan's decades-long commitment to accumulation, organization, and documentation. Li Yuan's unwavering focus and meticulous scholarly spirit are prominently manifested in his notable work *Visiting the United States*, providing valuable insights for those engaged in science popularization.

Keywords: Li Yuan; popular science writing; culture; scholarly spirit

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封面介绍

《世界首台铁路桥梁换运架一体机“太行号”投用》

作品简介：2023年6月20日，在河北沧州黄骅市，我国重要煤运通道——朔黄铁路成功在4小时“天窗期”内完成了首孔预应力混凝土T梁的“换、运、架”全部作业，标志着世界首台铁路桥梁换运架一体机“太行号”正式投用。为突破现有换梁施工技术的限制，由中铁第五勘察设计院和国家能源集团朔黄铁路公司联合研制的“太行号”应运而生，其采用了“两车夹一机”的编组运行方式，同时首创“收折式”设计理念，具备“整机换、运”的姿态快速转换功能。施工不受周围环境的影响，无需对接触网等附属设施进行迁改，适用于各种复杂工况下的换梁作业。换梁工序及施工人员大幅减少，整体换梁效率较传统工法提升3倍，真正实现即换即通车。

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