



# Comparison of SkyWay with suspension system Neyrpic

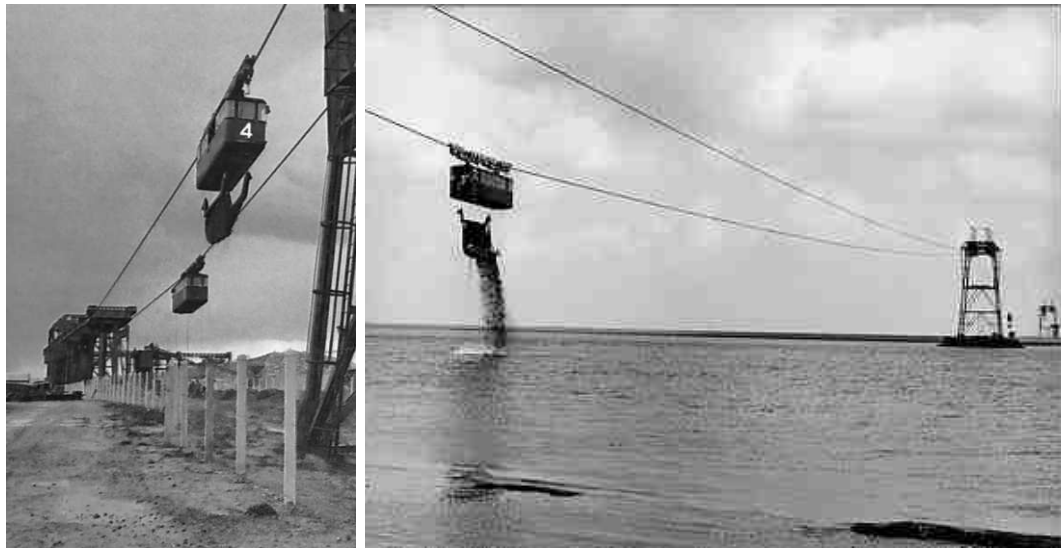
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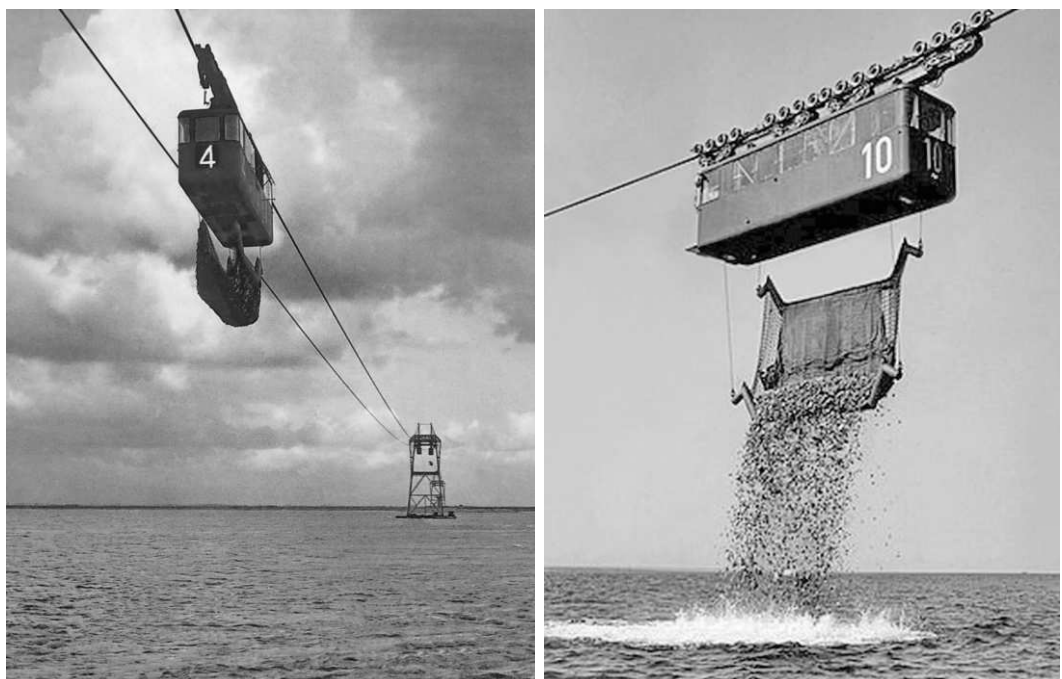
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Previously it was repeatedly indicated that the suspended monorails for transporting passengers and cargo are known in the world for a long time, and Anatoly Yunitskiy is not a pioneer in this field. For example, the elevated transportation system in the city of Wuppertal was put into operation as far back as on March 1, 1901. There were many systems where wheels of the passenger cabins or a cargo truck rolled directly on a carrying rope.



For example, the system of the company Neyrpic (France), which was established in the framework of the project "Delta" for the construction of the dam foundation "Grevelingendam" between the islands of Schouwen-Duiveland and Goeree-Overflakkee in 1963–1965.



However, for any competent technician and engineer at once obvious become the limitations of this vector of transport development, which has many disadvantages.

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In particular, due to the fact that the very foundation on which the wheel rolls, is a flexible and unsmooth (wavy) rope made up of many thin steel wires that have short service life, these disadvantages are:

- high (by 5–6 times higher) rolling resistance of wheels compared to rolling of a steel cylindrical wheel on a flat steel rail;
- serious restrictions on permissible pressure of the wheel on carrying flexible cable; to minimize its wear there are 16 wheels in Neyrpic cars, the engineers sought to reduce pressure and disperse the load;
- the transition from one span to another via a support with a small radius of the saddle (the cable is very flexible, therefore the saddle is not a smooth line but a polygon), which forces to limit the speed limit at 30 km/h to avoid significant vertical accelerations and shocks;
- constant and intense wear of the carrying cable, in spite of all protective measures that, in the end, leads to forced change every 6–8 years of this most expensive element of the suspension way; this not only reduces the durability of the track structure, but also makes these ways very noisy;
- the need for the service, constantly monitoring the condition of the suspension cable on the entire route (and during this control, system operation is suspended, of course) to avoid spontaneous collapse of all cable transport overpasses;
- the flexibility of the cable span structure does not allow to reckon cableways among transport overpasses, as, for example, major bridges should have a relative stiffness of the spans of at least 1/800 (and not 1/100 like the cableways have).

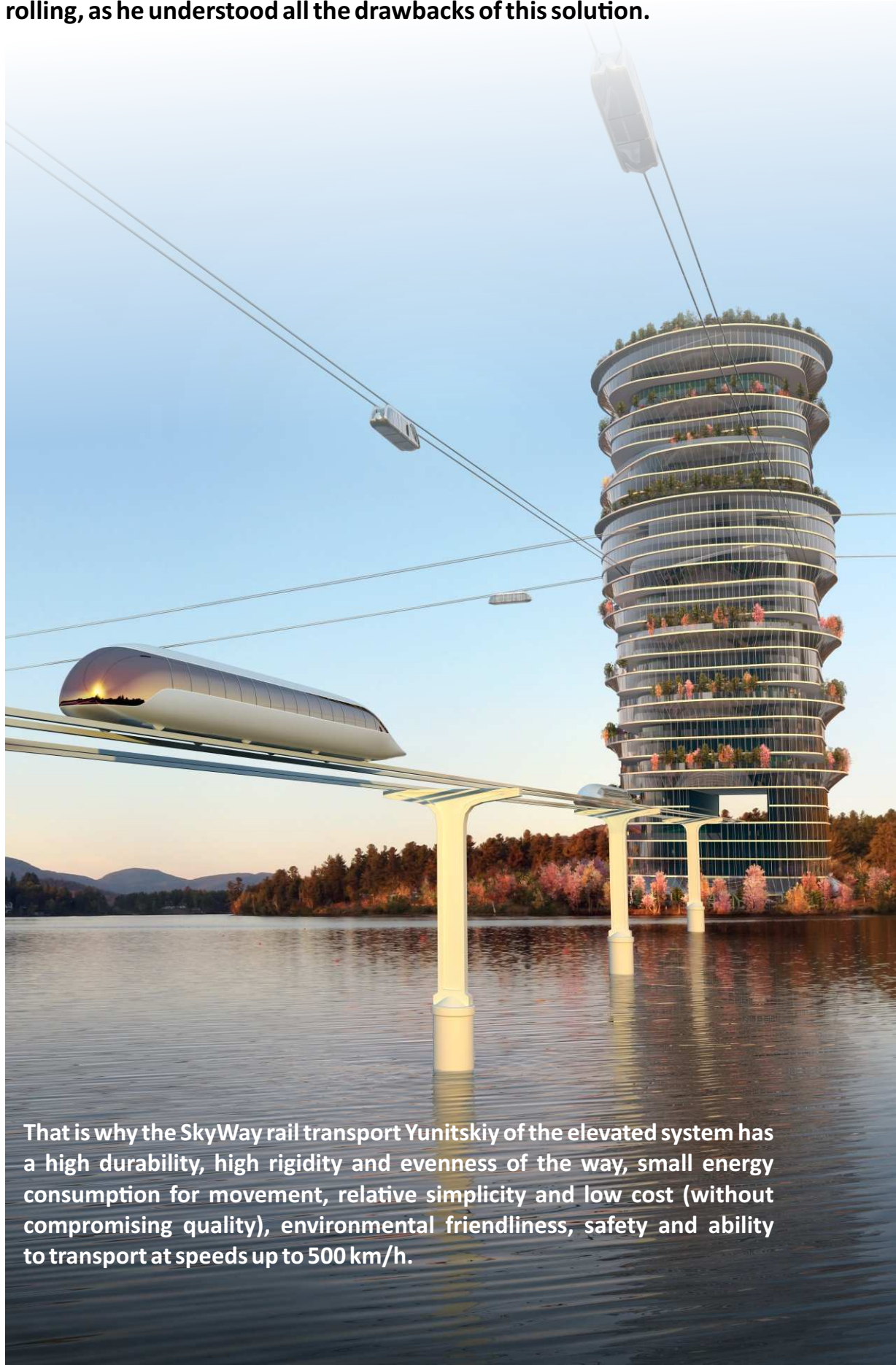




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Engineer Yunitskiy initially refused such a losing scheme of wheel rolling, as he understood all the drawbacks of this solution.



That is why the SkyWay rail transport Yunitskiy of the elevated system has a high durability, high rigidity and evenness of the way, small energy consumption for movement, relative simplicity and low cost (without compromising quality), environmental friendliness, safety and ability to transport at speeds up to 500 km/h.