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CZECHOSLOVAK SLALOM COURSE

Czechoslovakian artificial slalom course using variable rubber containers now in full operation.

Article by
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and
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with additions
by
Mike Clark

While British canoe slalomist and rough water paddlers still have no national site and have to make do with the basic of amenities on the Tryweryn, the Dee and Tay, and while after almost eight years of design work the final design plans of the proposed artificial slalom course on the River Trent at Holme Pierrepont seem destined to collect dust in some dark corner of a council office, Czechoslovakia has pushed ahead with two artificial slalom courses and which are now in full operation.

It was only in the last few years that an idea appeared in Czechoslovakia for the utilization of rubber containers as obstacles for artificial canoe slalom courses. The first course using such elements was opened in Brandys/Elbe (some 20Km east of Prague) on 2nd June 1979, the construction of the course completed before that of the course at Troja (a central suburb of Prague), which has been delayed due to unexpected works to an adjacent weir and floods earlier in the year.

MODEL INVESTIGATED

The course in Brandys/Elbe was — as the course at Troja — model investigated at the Technical University of Prague, Faculty of Civil Engineering Department of Hydraulics and Hydrology, where one of the authors and former canoeist — Jaroslav Pollert — is a researcher.

The course is suitated in an old mill drain. The concrete bed and walls are of a rectangle like the old Olympic slalom course at Augsburg in Western Germany, but the rubber containers (which are filled with water) are anchored very simply being roped to prefabricated blocks of concrete which are laid free on the bed of the course. With such a simple fixing it is very easy to remove or resite the whole complex of obstacles to new positions during one or two afternoons by using a crane truck — hence a different course!

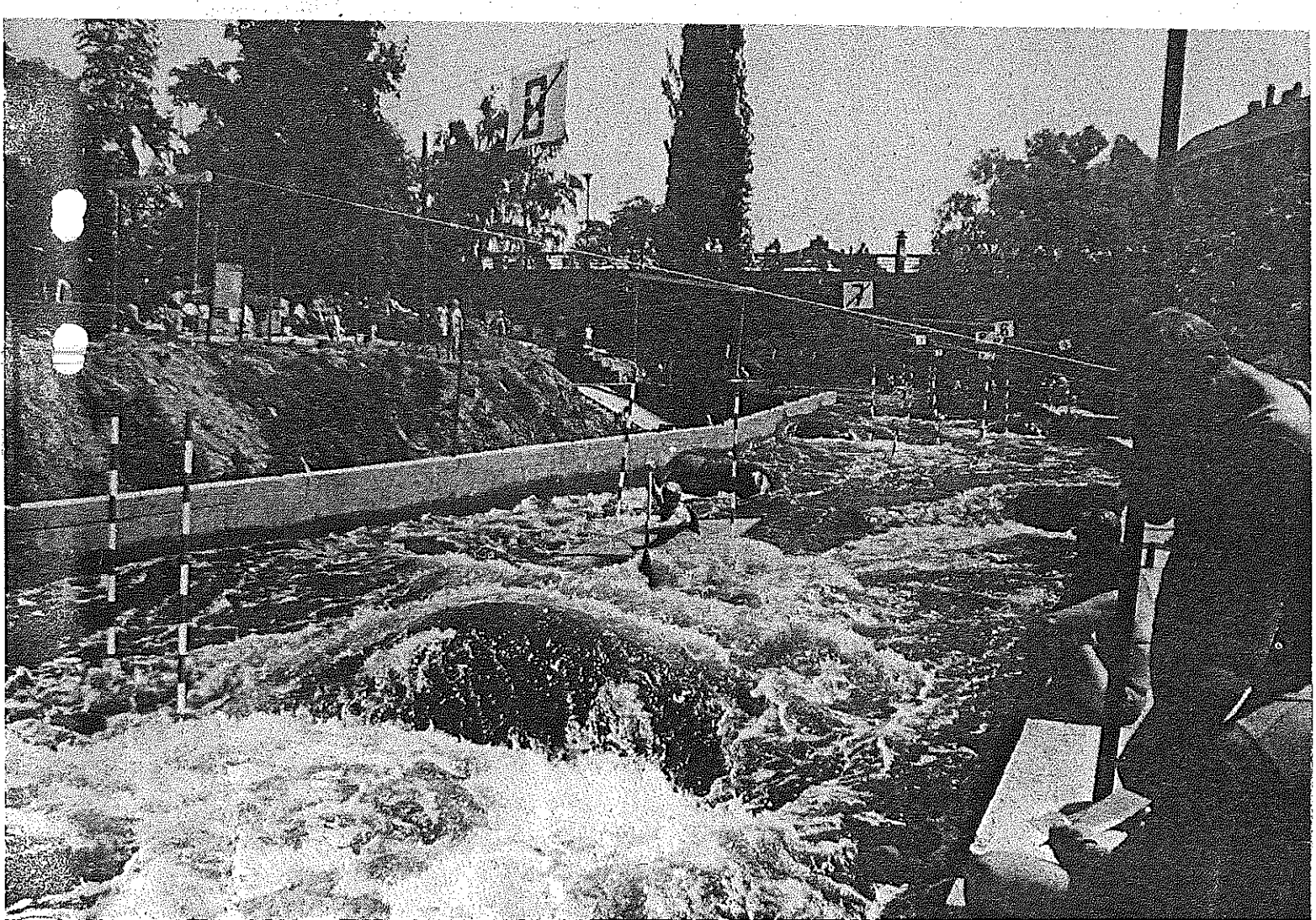
The main concrete chute has two parsable entries. The model investigations gave the artificial course six different possibilities for siting the containers — six different white water courses of varying standards. With such flexible use of the obstacles it is possible to create a course suited for the complete novice or a course of difficulty suitable for the expert to practice or for competitions.

TECHNICAL DETAILS

The main technical details are: Rate of flow range from 5-10 m^3 secs (as is needed): Total length of course is 450-metres with three falls: The main fall has an incline of 1% in 280-metres with a narrow section over this part of 8.15-metres width, and with four wider sections of 1.0-mtres width each of 10-metres in length. This narrow width was caused by the shape of the building site and space available, plus economy. The remaining sections of the course has a width of 14-metres. Also, for quickly and easily returning the canoes and kayaks back up to the start, there is a parallel canal of flat water running the full length of the artificial course, plus a proposed lift for the boats that has yet to be completed. The canal width is 2.5-metres. The depth range of the course is 0.8 — 1.2 metres, enough for safe Eskimo roll over any part of the course.

With rushing white water sparkling in the sun, brightly coloured canoes and kayaks practicing or competing on the course, such a sight from the nearby castle that overlooks the old mill stream would surely have surprised Rudolf II, the 17th century emperior from The House of Habsburg. Or perhaps his preference would have been for a glimpse of the miller's wife!

Above: Low angle shot of the slalom course with the rubber containers in position but without flow of water.
Below: Course in full use with water flow and gates in position.



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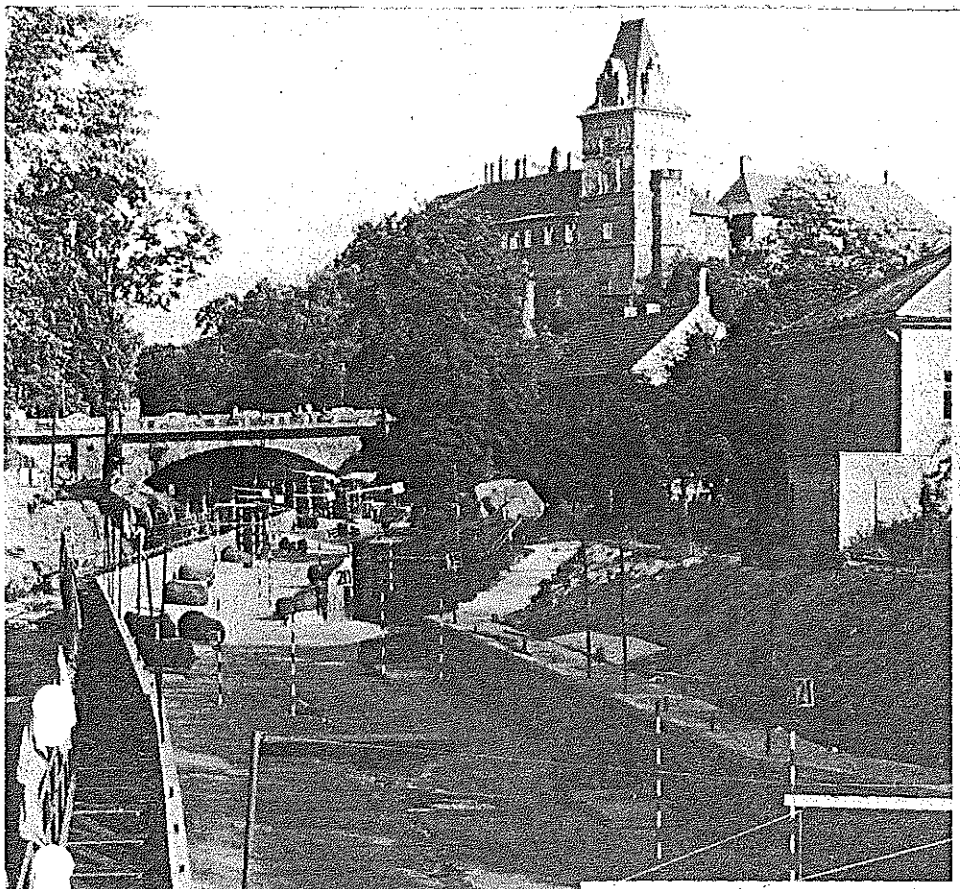
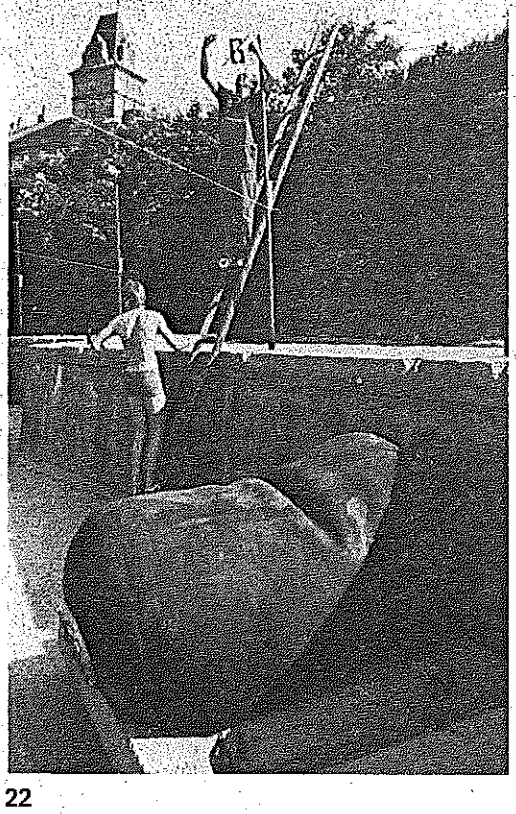
Left: The empty course with containers in position.
Below: The course from the same point with flow of water.
Below left: Detail of the rubber container full with water.





Jaroslav Pollert,
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PRAHA
TJECKOSLOVAKIEN

Stockholm, Nov. 19, 1979

Dear Mr. Pollert,

I have been reading your most interesting article in the october issue of Canoeing about the artificial slalom courses in Brandys/Elbe and Troja.
Here in Stockholm, were we started a canoe slalom club two years ago, we have a 20 meter wide and 200 m long canal with a total fall of about 0.3-1.0 m varying with the water levels in the lake Mälaren and the sea.
The canal has high straight walls, and I believe that the bottom is rather flat and there are no obstacles. The wanal cannot be drained, but the flow can be shut off.
I think that it would be possible to make a good training course with artificial obstacles, and therefore I should be very much obliged to you if you would give me some details about the rubber containers obstacles you use in Czechoslovakia. What are the dimensions of the rubber containers? Are they specially made for this purpose, or can they be bought somewhere? Exactly how are they roped to the concrete blocks? What are the dimensions of the concrete blocks? Do they have to be ballasted with steel to stay in their positions? Howw are they reinforced?
Those are the main things I hppe to learn about, maybe you will be able to tell me other things of interest in this matter too. In any case, I will look forward to hearing from you soon.
Yours Faithfully

Tommy Landén
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Prague, Jan. 3, 1980

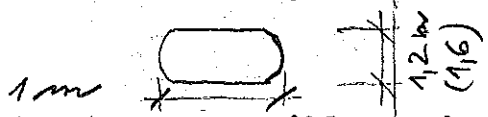
Dear Mr. Landén,

I received your letter some days before Christmas. Excuse my delay with answer,

I hope that my answer to your question will suit you as an first information. Due to my good reputation in our Czechoslovak Canoe Federation (15 years in our national team and 3x world champion - C1, C2) I was responsible for model investigations our artificial slalom courses and I have all informations about our canals.

And now to your canal: from your short explanation I agree with you that canal in Stockholm will be good for practising and straight walls provide you good opportunity for hanging gates. The slope 0.5 % (1,0 m fall) is also the same as we have in part of our canal in Prague-Troja and I think that is enough for practising white water.

The obstacles - rubber containers are produced in Czechoslovakia and first reason of them was stocking of cement powder at small building sites. They have volume 1 m^3, resp. 2 m^3



The containers are possible to bought in Czechoslovakia. We are using two posibilities for anchoring of containers. In Troja it is by steel bars (containers have special ears on sides) and in Brandýs they are very simple roped by parachute strings. Empty container is only 50 kg heavy. The concrete blocks in Brandýs (as anchor for containers) have dimensions Lx1x0.1 m or 2x1x0.12 m. The containers are filled by water with small submersible pump.

For good explanation or details it would be better for you to attend me in Prague. Very nice occassion for this it would be start of May when will be in Brandýs (20 km eastwards from Prague) international competition.

Yours faithfully

Jaroslav Pollert

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