escola de bolso
[POCKET SCHOOL]

FINAL PROJECT/ RAFAEL PINHO
EA.UFMG/ SCHOOL OF ARCHITECTURE AND URBAN PLANNING/ FEDERAL UNIVERSITY OF MINAS GERAIS/ BRASIL
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OR/ PROFESSOR DR. MARIA LÚCIA MALARD
OR/ PROFESSOR PORFÍRIO VALLADARES

ABSTRACT/

The *Pocket School* is an "assembly kit" school, intended for temporary and/or emergency use. It consists of modules and panels which make up the internal spaces, all covered by a tensile structure. Disassembled, the kit is reduced to standardized volumes, all compatible with the dimensions of the cargo compartment of most trucks [2,5x12m], enabling the kit to be easily transported anywhere.

Once assembled, the school can function in the same spot for months or a few years. When applied to settlements that are supposed to become permanent, such as MST relocation programs [MST is a group that attempts to take unproductive farmland from owners of large tracts and redistribute it to poor, landless farmers, in order to reduce the social disorders and improve wealth distribution in Brazil] the Pocket School can be used until a permanent building is ready for use, in which case some of the modules may be "absorbed" by the building. In the case of temporary use, such as relief efforts for victims of natural disasters, semi-nomadic populations, temporary MST encampments, settlements on remote construction sites [dams, bridges, etc.], the Pocket School could be assembled, disassembled and moved to other locations as necessary.

ASSEMBLY.
In sites where earthwork is not necessary, the *Pocket School* can be quickly assembled – once the foundation is ready and the soil compacted, only a few days are needed for full assembly. The structure is intended for repeated use, thus reducing the cost per use. It can also be assembled in various shapes and sizes, in order to adapt to specific circumstances, needs and topography[1]. The resulting space is multifunctional and of flexible usage, designed to be used as an elementary, middle or high school, an institute of higher learning, or even a community center.

UNITS.
The kit is divided in modules and panels. Groups where there are plumbing walls [PEX system] or any other permanent furniture and structures, are made up of modules. The classrooms and administration rooms are assembled out of floor, wall and ceiling panels. In the panel system, all elements fit into each other [tongue and groove joints], and are held together by screws. The modules and panels are supported by adjustable-height steel monoposts, in order to accommodate small terrain irregularities, without the necessity of major sitework. The monoposts are anchored to shallow foundations, built specifically for the local terrain characteristics. The walls connect to the floor, and the ceiling panels lock the structure. Each functional group, be it modules or panels, or both, is an entirely independent structure, which makes its use in irregular terrain much easier. The dimensions of modules and panels are limited by the size of a standard truck cargo compartment, as well as by the industry standards, especially in the case of steel beams.

PROGRAM.
The *Pocket School* is divided in 5 functional groups: administration, toilets, library, kitchen/cafeteria and classrooms. Aside from the modules and the transportable and re-usable part of the school, some conventional constructions should precede the assembly of the school. According to the selected site and its surroundings, the school can be more or less able to close. Generally, it is a much more penetrable structure than a conventional school building, especially due to its being covered by a membrane.

PVC.
The school construction system was inspired by PVC truck cargo compartments. Essentially, the system consists of coextruded cellular PVC profiles with tongue and groove joints fit into a steel frame. The result is a structure with no apparent rivets or screws, except at the metallic connections. Also, the panels are light, due to the air cushion contained within the cellular PVC profiles, as well as having good thermal and acoustic isolation, and a long life-expectancy [approximately 20 year manufacturer warranty]. When burned, the plastic resin does not hold combustion, and is classified as a Class A Non-Flammable product. At last, the inspiration behind the system is totally compatible with the moveable nature of the Pocket School.

[1] The possibility of installing the school in extreme climates has not been addressed here, but is also not excluded. Such option would demand special attention and a more complex and sophisticated climate control. No harsh climates can be found in Brazil. Most of the territory is under a mild tropical climate - often too hot, but never too cold.