Ben Bronsema EWF Prize 2021; award ceremony November 4, 2021, during Building Holland
There are 7 entries for the 2021 prize. These vary from scientific research and design projects in graduation work to fully completed buildings. An exciting matter for the jury to decide which project is eligible for the prize.
One project is not involved in the adjudication because the degree of elaboration in relation to the other 6 projects is not sufficient.
Below is the response of the jury per project in the order of discussion.

1. Sake Teelings – MFO-2 building (supervisor Ron van der Plas / Halmos)
"Comparison of the annual energy use of the Earth Wind and Fire system and a conventional system for heating ventilation and air conditioning integrated in the MFO-2 building (Rotterdam)"
Jury response
An important study that demonstrates in a scientifically sound way how much energy can be saved using the EWF concept, by comparing it with a conventional system. In addition, a new type of heat exchanger has also been used in the design of the EWF concept.
The project also invites you to think about improving traditional concepts and to make an integral performance comparison, including cost in addition to a technical comparison. [Currently taking place in an ongoing Halmos/BAM investigation].

2. Femke de Gooijer - Purifying effect of the Climate Cascade on ventilated air
Jury response
An interesting literature review that shows that the climate cascade has less effect on air purification than hoped. It may work better with a different water droplet size. Femke notes that it only works for coarse dust. This is an important observation that invites further research, including measurements.

3. Yamini Patidar – Housing Refurbishment
Jury response
An interesting and well-executed, but above all useful, study to show housing associations and developers that the EWF concept is also an excellent option for stacked housing. In connection with this, the thesis has also been sent to Aedes and is in the running for the 2021 thesis prize. A summary of the research has been accepted for publication by the REHVA Journal.
The EWF concept is intelligently integrated into an existing building, an application that can be important for the Netherlands in connection with making existing high-rise apartments buildings energy neutral. The project is also well detailed and worked out.

4. Shriya Balakrishnan, Refurbishment Province House Utrecht
Jury response
Shriya has worked closely with stakeholders from the Province of Utrecht for her research and has received a lot of appreciation for this.
The design is worth it. The existing building has been dealt with creatively. A lot has been researched, including temperature exceedance calculations, which shows that it should be able to work in practice. The different parts are well implemented, possibly a bit complex. The whole does lead to a major metaformosis of the existing building by architect Mourik Vermeulen. Some things could have been more subtly integrated.

5. Puji Nata Djaja: Tokyo Office Building with EWF
Jury response
Puji is very curious about the technical aspects of EWF, such as yields and pressure losses etc., causing her to lose sight of the big picture every now and then. Despite this, she successfully completed a

difficult project and mapped out the differences between the Netherlands and Japan regarding the performance of the EWF concept.
Interesting how the whole system is incorporated in the building. Choice of building, heights of the cascade and the solar chimney are well taken. The different parts are integrated in a simple way. Elaboration, execution, assembly, and detailing are very interesting. Very complete story based on architectural information.

6. Daan Bruggink: Ecological primary school De Verwondering

Jury response

A beautiful design by an ecologically inspired architect which we need more in the Netherlands. The natural ventilation concept has nothing to do with EWF, but the whole certainly meets the objectives of the foundation “to accelerate innovations in the field of natural climate control in buildings, whereby the Earth, Wind & Fire concept can serve as a model as a source of inspiration but is not restrictive”.
It is striking that in addition to the natural ventilation facilities, a complete mechanical balanced ventilation system has also been installed. Such a bivalent-alternative system not only drives up costs, but also detracts from the ecological principles of the design and of the architect. It's not a true hybrid solution. It is either-or instead of cooperating natural-mechanical.
The application of an ice buffer system is very interesting.
All in all, it is a great application of new systems, but there are more projects like this. Furthermore, this is an executed design and can only really be judged once the first user experiences and, even better, evaluation measurements are available. Perhaps the project was submitted just a little too early.