

In search of a contemporary hyaku-sho

*Original*

In search of a contemporary hyaku-sho / Bocci, M., Mazelli, R.. - In: JOURNAL OF TRADITIONAL BUILDING, ARCHITECTURE AND URBANISM. - ISSN 2660-5821. - ELETTRONICO. - 1:1(2020), pp. 301-308.  
[10.51303/jtbau.vi1.355]

*Availability:*

This version is available at: 11583/2942775 since: 2021-12-03T18:09:17Z

*Publisher:*

INTBAU Spain

*Published*

DOI:10.51303/jtbau.vi1.355

*Terms of use:*

This article is made available under terms and conditions as specified in the corresponding bibliographic description in the repository

*Publisher copyright*

(Article begins on next page)

Martina Bocci, Redina Mazelli

*In search of a contemporary* 百姓

*En busca de un* 百姓 *contemporáneo*

*Em busca de um* 百姓 *contemporâneo*

**Abstract | Resumen | Resumo**

The Dry Walling School of Japan and Canova Association have collaborated since 2017 in organizing two dry wall construction workshops in northern Piedmont. Alongside construction site activities, participants were immersed in a system of different sectors working together to safeguard built heritage but also to re-evaluate local resources from a contemporary perspective. This multidisciplinary approach to rehabilitating traditional heritage has led to initiatives of inclusive local development, and to the promotion of a new figure, one who applies global thinking locally and who is able to grasp the potentials of a given territory.

La Dry Walling School de Japón y la Asociación Canova han colaborado desde 2017 en la organización de dos talleres de construcción de muro de piedra en seco en el norte de Piamonte. Además de las propias actividades de construcción, se introdujo a los participantes a un sistema donde diferentes agentes trabajan juntos para salvaguardar el patrimonio construido, pero también para reevaluar los recursos locales con una visión contemporánea. Esta multidisciplinariedad en los procesos de rehabilitación del patrimonio tradicional ha dado lugar a iniciativas de desarrollo local inclusivo, así como el impulso de una nueva figura que aplica en lo local un pensamiento global y es capaz de captar las potencialidades de un territorio.

A Dry Walling School of Japan e a Associação Canova têm colaborado desde 2017 na organização de duas oficinas de construção de paredes secas no norte de Piemonte. Paralelamente às atividades de construção, os participantes foram imersos num sistema de trabalho em conjunto com diferentes sectores para salvaguardar o património construído, mas também para reavaliar os recursos locais sob uma perspectiva contemporânea. Esta multidisciplinaridade nos processos de reabilitação do património tradicional levou a iniciativas de desenvolvimento local inclusivo, e à promoção de uma nova figura, uma figura que aplica localmente um pensamento global, capaz de captar as potencialidades de um território.

The Japanese word 百姓 (*hyaku-shō*), currently meaning “peasant”, comes from the union of two ideograms: 百 (*hyaku*), which means one hundred, many, a lot, and 姓 (*shō*), which means surnames, ranks, trades. Originally it indicated the person who could do everything, the vernacular person: the farmer who was in charge of building and repairing the terraces and his own house, of producing the sustenance goods and transforming them into food through local recipes or making a profit through selling them, of manually building his tools, of passing down knowledge to his children (Hagino 2020). Such people guaranteed the subsistence and autonomy of every village.

Nowadays the figure of the vernacular person has lost its original sense. In industrialized countries, the rural areas and terraced landscapes are suffering from severe abandonment and degradation. These derive mainly from cultural transformations that have replaced subsistence with mechanized production. Depopulation and aging in rural areas are among its consequences. Only land that is easily accessible by machinery is still cultivated, while low productive, high-labour-intensive terraced areas are not maintained.

This is in addition to an interruption in the transmission of many building techniques, such as dry-stone construction. Most people think that the recovery of dry-stone terraces requires skilled labor and therefore high costs. Thus, inconsistent landscapes are created, due to the tradition-incongruous interventions which have replaced that technique.

Nevertheless, rural areas and terraces are increasingly recognized as a resource for local development and there are a few initiatives that struggle counteract this trend of abandonment. The multidisciplinary collaboration between individuals and the creation of networks allow part of the autonomy that characterized rural areas in the past to be recovered. Inadvertently, this creates an updated and extended figure of 百姓, who applies global thinking locally, and is able to grasp the multi-faceted potentialities of the territory.

The Dry Walling School of Japan (in Japanese, *Ishizumi-gakkō* 石積み学校)<sup>1</sup>, founded in 2013 by Sanada Junko<sup>2</sup>, is one of the initiatives that promote the dry-stone walls construction technique,

Rice terraces on the Island of Shodosima, Kagawa Region.  
(Junko Sanada)





1: Orthophotos of the village of Ghesc. The drystone wall built during the workshop of 2017 is marked in yellow, in red, that of 2019 (Stefano Perri)

2: Japanese students in the laboratory village of Ghesc (Eitaro Nomura)

favours a change in the collective imaginary and brings stimuli and expertise to local processes. The school travels throughout Japan at the request of local groups, municipalities and university labs. The participation fees allow a sustainable management system independent from external funding, guaranteeing autonomy and continuity over time. Since 2013, about 100 courses have been organized by them (Sanada 2020b).

Following the International Conference on Terraced Landscape held in Padua in 2016<sup>3</sup>, a collaboration between the Dry Walling School of Japan and Canova Association<sup>4</sup> was established. Since 2017, in cooperation with the Tokyo Institute of Technology, two dry wall construction workshops<sup>5</sup> have been organized in Ghesc, the village-laboratory of Canova Association in northern Piedmont, Italy.

Under the guidance of local expert Maurizio Cesprini, a total of 21 students participated, led by Professors Sanada Junko, Kaneko Reo and Ito Akira. Alongside construction site activities, guided tours to recovered terraced landscapes were offered to emphasize the close relationship between terraced landscape and agriculture, and between masonry and livelihood activities in the Ossola valleys.

The construction activity enabled students and organizers to gain first-hand experience of similarities and differences between Italian and Japanese dry masonry techniques, and to exchange skills.



Construction activities during the 2019 workshop (Maurizio Cesprini)

Something the two construction methods have in common is their focus on the stability required to retain the soil uphill and on water drainage. The first step is the excavation of a slightly inclined trench (around 10%), where big stones are placed steadily to form the footing, allowing the wall to be anchored to the ground. The main difference between the traditions of Japan and Piedmont is in the construction of the courses above ground. The stones available locally directly influence the technique employed (Sanada 2020a): stones in northern Piedmont split, or even naturally occur in pseudo-parallelepiped shapes, therefore allowing parallel horizontal courses, while in Japan stones used for dry-stone walls often have a rounded shape and are laid diagonally. During the 2017 workshop, after some round-shaped stones were found in a pile of debris, a wall portion was rebuilt using the Japanese technique, prompting the curiosity and appreciation of the locals. However, in both cases the stones are placed facing slightly backwards toward the slope in order to create a batter on the external face of the wall (with an inclination of 5 to 10%). This increases the wall's turnover resistance and facilitates the flow of rainwater. The space between the wall and the slope is filled gradually with rocks both to prevent soil from pushing through the cracks and

- 1: Excavation and flattening of a shallow trench approximately the width of the wall in the 2017 workshop. In the meantime, stones are gathered in the proximity and organized roughly by shape and dimension to facilitate the construction (Eitaro Nomura)
- 2: Placing of the footing stones in 2019 (Maurizio Cesprini)
- 3: Dry-stone wall built during the 2017 workshop, combining portions built in Japanese and Piedmontese techniques (Reo Kaneko)



to favor drainage, allowing the water to pass through the wall itself and reducing the hydrostatic pressure caused by the wet soil. Finally, flat coping stones are placed evenly on the top course.

A common feature between the two techniques is the relationship between form and function: the masonry itself is not the purpose, but a means of survival. The aim is to obtain flat land, suitable for cultivation. Building retaining walls was one of the many agricultural works, a popular art requiring effort minimization, sometimes at the expense of mechanical strength and aesthetic beauty (Sanada, 2020a). Peasants were able to develop an efficient technique, based on “right and necessary” labour quality and quantity.

Japanese students, who were accommodated in ancient stone buildings, were taken to where the stone tale begins: to quarries, and then to local processing workshops. Further visits included Ossola stone villages and the impressive prehistoric dry-stone walls (13<sup>th</sup> century B.C.) in the megalithic area of Varchignoli. These visits got them acquainted with a wider range of local stone heritage, allowing them to appreciate the different historical techniques. They were also introduced to a couple who recently started restoring houses and landscaping terraces to obtain land for vegetable gardens and pastures. Apart from stone construction, they also visited ancient tools, such as communal ovens, cheese diaries, grape presses, and the water mills used to obtain walnut oil and flour.

In addition to retracing the history and traditions linked to mountain terraces, and discussing how they had been abandoned due to changes in agricultural practices and cultural values, students were given the opportunity to visit sustainable agriculture projects akin to the Slow Food approach and the “human ecodynamics” principle<sup>6</sup>. In these projects, native seeds and organic fertilizers are used; and some grow saffron and berries, which are highly profitable products. Most of their produce is sold to local restaurants and residents.

1: Filling the back space, between the soil and the wall, with small rocks for drainage in 2019. The stones on the external side are placed in order to have their largest and flattest part facing the outside, while the internal part of the wall is built up with smaller and more irregular stones (Reo Kaneko)

2: Placing the stones in horizontal courses in 2019. Joints of one course are bridged by a stone in the next course, while through stones, located at regular intervals, hold the two sides together. A string is used as a level line and moved up as the construction progresses (Maurizio Cesprini)

3: Completion of the wall during the 2017 workshop by placing the coping stones and adjusting the soil uphill (Reo Kaneko)



An example is the Terra Vi.Va.<sup>7</sup> association of Viganella, an area where terraces have been gradually turning into forest since the industrial boom, and stone buildings have collapsed. In collaboration with local municipalities, the association supports the renovation of houses and the return to agriculture such as rye cultivation, among other things. Another example is the agricultural school in Crodo<sup>8</sup>, whose strongly practice-oriented teaching method is based on experimental field work and workshops where students produce wine, cheese, beer, and honey. Since 1990, the small enterprise of the Garrone family<sup>9</sup> in Oira relaunched certain local wines whose commercial production had been discontinued at the beginning of the 20<sup>th</sup> century. High-quality wine is now obtained from their own grapes as well as those sold by small farmers; vineyards are manually processed from pruning to harvest.

All this allowed the participants to understand the link between the building of terraces, traditional agriculture and the consumers who support it through the demand for local food. As one of the participants, Nakagawa Takaaki, commented: "the food we find on the table here, in this rural area, tastes like the primitive principle of human work... To re-establish the relationship between Nature and Man, I think it is important to not only look at the landscape, but to have vivid physical experiences, like touching the earth with your hands, feeling the wind on your skin, or chewing food in your mouth" (Kaneko 2018).

The Japanese students had the opportunity to understand what it means and how to be a 百姓 today or, to borrow a phrase from the writer Taki Yosuke, how to be a "Gentle Cultivator of Life" (Taki 2009), one who collaborates in the creation of a modern vernacular society.

On the one hand, the construction activity allowed students to toil and perceive their own physical limits, for some of them possibly for the first time. This created an awareness of the bodily relationship with the natural environment, in stark contrast to the lifestyle of the megalopolises in which most of them live.

But "drywall construction is not only about masonry", as student Miwa Junpei pointed out (Kaneko 2018). Participants were deeply immersed in a complex and stratified reality, perceiving the delicate connections that guarantee its balance. In the words of another student, Fujiwara Shun: "There is an attempt to create internal connections, not only between producers and consumers, but also between the various sectors such as food, clothing, construction and education" (Kaneko 2018).

A livelihood based solely on cultivation on Ossola's steep land is now almost impossible, and agricultural work must necessarily be combined with other jobs. As student Koike Hiroko interprets, "people from different sectors were not only faithfully safeguarding traditional methods but also re-evaluating local resources and carrying out activities with a future [and flexible] perspective" (Kaneko 2018). The efforts to restore stone buildings and terraces are therefore not only aimed at transmitting traditional techniques and certainly do not require us

1: The students of the 2017 workshop attend to an explanation of stone working in the laboratory of Lino Rossini in Candoglia (Eitaro Nomura)

2: Tour to the ancient building site of Varchignoli, Villadossola, with huge dry-stone walls 5-6 metres high and underground rooms (Maurizio Cesprini)



to re-establish the lifestyle of the past, but bring a new value to houses and fields, that is suitable to the present time.

Canova Association and the Dry Walling School have shown how “in marginal areas traditional knowledge – in agriculture, building, craftsmanship or even the way you are part of a community – can be a human development asset, together with other assets such as the less-polluted environment and a ‘niche’ character which allows diversity to thrive” (Bocco 2020).

<sup>1</sup> [ishizumischool.localinfo.jp/](http://ishizumischool.localinfo.jp/)

<sup>2</sup> Associate Professor at the School of Environment and Society, Tokyo Institute of Technology.

<sup>3</sup> <http://www.terracedlandscapes2016.it/>

<sup>4</sup> Canova is a non-profit organization founded in 2001 in northern Italy, aimed at the recovery of building traditions through field work as well as cultural events. Since 2010, the Canova Association has acquired part of the buildings of Ghesc, on which hands-on educational projects and activities are organized every year, with students from different parts of the world. Exhibitions and publications are also produced to promote knowledge and awareness of the value of local built heritage ([www.canovacanova.com](http://www.canovacanova.com))

<sup>5</sup> 28 August-6 September 2017 and 29 August-7 September 2019

<sup>6</sup> Human ecodynamics refers to processes of stability, resilience, and change in socio-ecological relationships or systems, focussing on production potential and livelihood.

<sup>7</sup> Project financed in 2016 by Cariplo Foundation.

<sup>8</sup> <http://www.innocenzoix.it/index.php/plessi/plesso-a>

<sup>9</sup> <https://www.cantinegarrone.it/it/>

## Bibliography | Bibliografia | Bibliografía

Bocco, Andrea. 2020. Introduction. In Bocci, Martina; Mazelli, Redina; and Bocco, Andrea. (Ed.). *Rehabilitation of traditional heritage and local development*. Torino: Politecnico di Torino (in print).

Hagino, Kiichiro. 2020. *Rehabilitation of traditional heritage and local development* (unpublished).

Kaneko, Reo. 2018. *Canova Field School. Italian Alpine Stone Architecture and Culture: Its Past, Present, and Future*. In: <https://drive.google.com/file/d/16QKkbkml0FG3GF9tlQmFii8PjhSSekJq/view> (consulted on 01/09/2020).

Kaneko, Reo. 2020. *Thoughts about Canova field school 2019*. In: <https://drive.google.com/file/d/1JRdr-1wHnGSWo-MQL3qFq3WojtUSnlEm/view> (consulted on 11/09/2020).

Sanada, Junko. 2020a. Farmers' dry stone walling technique for rural landscape. *Civil Engineering for Life*, 9, 84-91.

Sanada, Junko. 2020b. Dry stone walling and local development. In Bocci, Martina; Mazelli, Redina; and Bocco, Andrea (ed.). 2020. *Rehabilitation of traditional heritage and local development*. Torino: Politecnico di Torino (in print).

Taki, Yosuke. 2009. Gentle Cultivators of Life: Seeking for a new paradigm of the world. *Axis: World Design Journal*, 137, 116-12.

1: Visit to the experimental fields of the agricultural school in Crodo during the 2019 workshop (Maurizio Cesprini)

2: Lunch at Ken and Kali's house (Reo Kaneko)



## Biographies | Biografias | Biografias

### Martina Bocci

She graduated in Sustainable Architecture at the Politecnico di Torino, with a Master thesis on earth construction techniques in Europe and Brazil. She is currently working on a Ph.D. in Urban and Regional Development at the Inter-University Department of Urban and Regional Studies of the Politecnico di Torino (DIST). Her research is focused on the role of the conservation and transmission of traditional construction techniques in local development. She is a co-founder of Accademia nel Cantiere (AnC), a nonprofit organization carrying on the design, research and construction of sustainable architecture through the use of appropriate technologies and natural materials.

### Redina Mazelli

She graduated in Architecture at the Politecnico di Torino, with a MSc thesis on the renovation and construction of small stone buildings in Alta Langa, Piedmont. Her work is currently focused on the experimentation with advanced techniques and the use of natural materials to achieve high environmental performance in historical building contexts. She is a co-founder of Accademia nel Cantiere, a nonprofit organization researching the use of appropriate technologies and natural materials in renovation projects and the revitalization of social spaces through participatory design and "learning by doing" self-construction, aimed at creating a network of students, artisans, enterprises and experts in these fields.