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Paper: Regionalism versus Universalism, Jan Jans's OLTHA Farmhouse



Topic: Architecture

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References:

[1] Alexander Tzonis, "Architecture of Regionalism in the Age of Globalization", Routledge, New York, 2012

[2] F.G.H. Löwik, "Jan Jans, Leven en Werk (1883-1863)", Van Deirse Intitute, Enschede, 2000

[3] K. Moraes Zarzar, "Dutch Fusion Architecture: Regionalism or globalism?"

www.generativeart.com

Abstract:

This article is the third presented in the GA conferences whose aim is, first, to uncover signs of regionalism in The Netherlands in general, and second, to reflect on the term "identity" in GA architecture. By analysing the numerous approaches towards identity – as embodied in architectural regionalism – one might get insights into how to reinforce the identity and uniqueness of cities in GA programs. These articles provide some reflection on the term "identity" by illustrating it with cases in architecture in the hope that generative codes can be developed loaded with the numerous faces of regionalism.

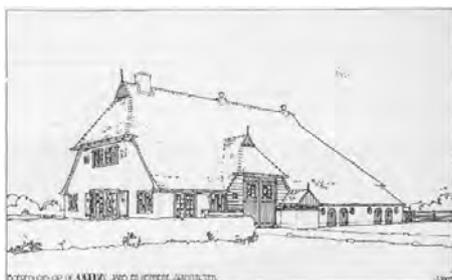
This article discusses the seminal 1927 project of Jan Jans (1883–1963) called the *OLTHA boerderij* (OLTHA farmhouse).

Jan Jans was born in Almelo, in the region of Twente, Overijssel Province, in the east of The Netherlands. He was a writer, an excellent draftsman and an architect. As a draftsman he drew hundreds of farmhouses, mills and churches from his region and these drawings are now archived in the Jan Jans Institute. In the process of drawing he undoubtedly got the essence and attractiveness of this architecture, which was often in very decadent state, within the Twentse landscape.

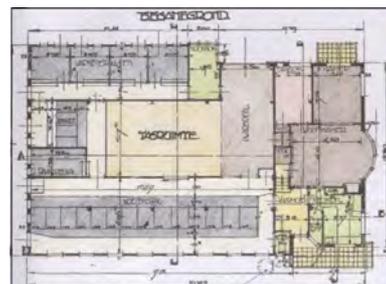
The OLTHA farmhouse was one of the first designs built by him and his associate H. Henneke with their firm "Bouwureau der OLM" on the occasion of an exhibition opened on 27 August 1927. This building is loaded with his original ideas, and hence has been selected for further analysis.

This article shows a third approach to regionalism, to show the essence of an architecture which did not want to be absorbed by a nationalist architecture. It also reflects on whether this iconographic architecture, which accommodates modern farmhouses, could bring solace against the power of globalism.

Our main questions refer to identity, innovation and sustainability, in particular examining how the OLTHA farmhouse relates to these issues.



Sketch of the Oltha farmhouse



Plan of the Oltha farmhouse

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Regionalism versus Universalism Jan Jans's OLTHA FARMHOUSE

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Jan Jans, Almelo

Premise

This article is the third presented in the GA conferences whose aim is, first, to uncover signs of regionalism in The Netherlands in general, and second, to reflect on the term “identity” in GA architecture. By analysing the numerous approaches towards identity – as embodied in architectural regionalism – one might get insights into how to reinforce the identity and uniqueness of cities in GA programs. These articles provide some reflection on the term “identity” by illustrating it with cases in architecture in the hope that generative codes can be developed loaded with the numerous faces of regionalism.

The research is part of a project to study how Dutch architects in the 20th century faced questions of regionalism and universalism. In this project a representative case study is carried out per selected architect. This particular article presents the study of Jan Jans' (1893–1963) OLTHA *boerderij* (farmhouse), built in Twente in 1927. Jans was very active in the regionalist movement of Twente, which spanned several fields such as literature, economy and politics.

In the first article on Berlage's Stock Exchange (1898–1903) in Amsterdam, we have seen that regionalism was equated with tradition mainly coming from Europe. So elements of the Stock Exchange were taken from places such as Siena and Florence, recombined and adapted to form an innovative design, which inspired both expressionists (the Amsterdam School) and modernists (De Stijl). It goes without saying that these references were not recollected as quotations. Their functions were well understood by Berlage, recombined with other elements and applied. In the second article, two projects were analysed: Van Winden's Inntel Hotel (2006–2010) in Zaandam and Geurst's Le Medi (1999–2008) in Rotterdam. Both projects used references in a Disneyism fashion, with the first using references which represent the “original” inhabitants of the area of about two hundred years ago, and the second

using references which represent the culture of the first and second generations of Turkish and Moroccan immigrants in a setting which turned public areas into semi-public ground. After analysis, the projects' advantages and disadvantages were presented at the end of the articles.

Also in this article, our main questions refer to identity, innovation and sustainability, in particular examining how the *OLTHA boerderij* relates to these issues.

1. Regionalism

Eleftherios Pavlides in his article "Four Approaches to Regionalism" (1991)ⁱ examines "how local influences have been used to generate local character in architecture, which has been called 'regionalism' in architecture". Regionalism, Pavlides says, is the architect's response to vernacular regional architectures.

He examined four distinct academic traditions which have been applied to the study and teaching of regional vernacular architectures. According to Pavlides, these four kinds of regional vernacular responses – folkloric, ideological, experiential and anthropological regionalisms – need not be mutually exclusive of one another. As an example, he says that a designer can simultaneously evoke an original archetype employing elements for their symbolism (folkloric regionalism), utilize principles of modern architecture that have been justified through reference to the vernacular (ideological regionalism), echo the material qualities and the spatial character of the vernacular as analysed by the architect (experiential regionalism), and respond to the user's perception (anthropological regionalism).

One might have doubts about the ideological regionalism. The use of vernacular elements reinforces an approach toward regionalism only if the vernacular reference belongs to the specific region where one will build. So Le Corbusier's piloti of the savage hut in its original environment was a regional characteristic, but when it is transferred to other countries it cannot be considered a regionalism. It might be considered a good solution to free houses from humidity or to free the view to the horizon but it is still not regionalism. There are modern architects concerned with region such as Alvar Aalto, but his practice is different from the syncretism that Le Corbusier used in his Citrohan villas and Unité d'Habitation. One could perhaps speak about the creation of a new tradition as Sigfried Giedion would call the modernism of the 1920s.

Pavlides' taxonomy shows the complexity of the concept of regionalism, and when he argues that these categories do not need to be mutually exclusive, he partially destroys his classification.

Another problem with Pavlides' four approaches is the fact that they refer to an instant in history. Tzonis and Lefaivre in their "Architecture of Regionalism in the age of globalization, Peaks and Valleys in the Flat World"ⁱⁱ discuss the dynamics of regionalism and universalism. They show how a product of globalization can become part of a regionalism. An example is given with Ancient Greek architecture, which was made through a recombination of its own inventions and products imported from numerous civilizations. Later it transformed itself into a legitimized identity, a tool to rationalize the Greeks' dominationⁱⁱⁱ of the world. This view of regionalism as a

process can shine some light on the way one can be critical in the use of regionalism as a pure expression of regional architecture elements.

2. Introduction: Jan Jans, 1893–1963

Who was Jan Jans? Social, political and cultural context

Jan Jans was born in Almelo, The Netherlands, in 1893. He started his career as a carpenter, and afterwards went to study at the Technical School in Zwolle. After Technical School he moved to Amsterdam where he would stay for 14 years before returning to Almelo. Besides being an architect, Jans was also known as a remarkable draftsman, researcher, writer and lecturer.^{iv}

In contrast to the other architects previously studied in this research project, Jan Jans considered himself a regionalist. From his early youth he sketched and painted farmhouses, windmills, traditional buildings and streets of old villages and towns. This activity would make him observe the materials, proportions and signs of the regional culture. Significantly, this interest also led him to focus on the landscape and its relation to farmhouses.

Jan Jans moved to Amsterdam in 1914 to work for the architectural firm Gulden & Geldmaker. At that office he met Hein Henneke, who would become his partner at the OLM office and later. During these years in Amsterdam, he read Dr. Werner Lindner's work "*Das niedersächsische Bauernhaus in Deutschland und Holland*" (The Lower-Saxon Farmhouse in Germany and Holland), which included some farmhouses in Twente. He also read Van der Kloot Meyburgh's book on village churches and farmhouses illustrated with line drawings. Both publications influenced Jans and helped him to understand the architecture of the countryside, especially that of his region^v. Another major influence was the magazine "*Wendingen*", in which Berlage, De Bazel, Granpré Molière and De Klerk contributed numerous articles^{vi}.

In 1926 Jans went travelling with his colleague Hein Henneke. They travelled by train as far as Neu-Müster and then continued by bicycle to Denmark^{vii}. It was at this time that Jans realized that the idea of region is not so much determined by political power as by language and culture.

Jan's position on his contemporaries:

Berlage and Laotse: according to Löwik, many ideas found in Berlage's articles are echoed in the articles of Jan Jans, such as the concept of simplicity and architecture as the art of space creation^{viii}. In his "*Bouwkunst en Cultuur*" (Architecture and Culture) Jans refers to Berlage's Stock Exchange (1903) as a kind of brick-and-mortar textbook on architecture^{ix}. However, the definition of architecture as the creation of space could have derived from Jans' reading of Laotse, as he describes in "*Bouwkunst en Cultuur*". According to Jans, Laotse found the space created by a building more relevant than the actual building itself. Convergence of thoughts or not, for Laotse as well as Berlage, buildings should be designed from inside to outside, the walls being the elements used to determine the space created.

Amsterdam School: though not against decorative elements, Jans disliked the Amsterdam School's "obsession" in producing decorative façades which often dictated the interior of the building, creating spaces that were not well lit or divided.^x

Delft School: Jans was aware of the ideas and concepts of Granpré Molière and his Delft School through his reading of the "*R.K. Bouwblad*" (Catholic Building Magazine), a periodical which covered the ideas of those who refused to abolish Dutch tradition^{xi}. Once again, the similarities could be a kind of convergent evolution. Granpré Molière was a Catholic and from this perspective he developed what came to be known as the Delft School. Jan Jans was a socialist, and although not an atheist, he had a very personal opinion about God^{xii}. His drawings were guided more by his political position.

Jans' OLM Architecture Office: The general principles that Jan Jans and Hein Henneke followed with their OLM architectural office at the time of the OLTHA farmhouse were:

1. Renovate old farms and, while minimizing drastic changes, make them suitable for modern business needs;
2. Build new buildings as modern, inexpensive and typical as possible;
3. Organize courses where architects from the countryside can learn to renovate farmhouses without disfiguring them;
4. Disseminate propaganda among all parties involved in building to adhere to good architecture, in particular good countryside architecture^{xiii}.

Jans' multifaceted concept of regionalism at the time of the OLTHA farmhouse can be partially discussed using Pavlides' four approaches to regionalism. It does not fit into one category; in fact it can be clearer using the four approaches.

From the folkloric regionalism it coincides in his use of typologies. However, contrary to Pavlides' folklorism, Jans finds essential the relation of the house to its topography and landscape.

From the modern approach, he has the functional plan layout, by trying to modify the farmhouse to satisfy the need of production modernization. However, he opposed functionalism as an end in itself. Contrary to the modernists and their *Neue Sachlichkeit* (New Objectivity) (1918–1933), Jans developed the concept of *Nieuwe Hartelijkheid* (New Cordiality), leaning substantially on his socialist consciousness, cultural awareness and the region's characteristics.

Experiential regionalism is the approach, says Pavlides, directly connected to Rudofsky's book "Architecture without Architects". According to Pavlides, Rudofsky goes beyond picturesque and formal aesthetic qualities evident in the material. Like Rudofsky, Jans sought to identify and present the experiential qualities of regional vernacular architectures. The experiential regionalism of Jans refers to the "*sfeer*" (ambience/atmosphere) that makes architecture more than just a worthy technical performance. He defines the ambience as the expression of a spiritual content. A building without ambience (atmosphere) is just a technical performance. If the building has something which warms us, then it has the atmosphere of an artwork. A building should tell us something of the emotion expressed in the enclosed

spaces. Ideally, the enclosed space must also be outwardly expressed. In other words, a building should express the properties of the enclosed space.^{xiv}

Jans' books "*Bouwkunst en Cultuur*" (Architecture and Culture) (1934) as well as "*Volkscultuur en Bouwkunst*" (Popular Culture and Architecture) (1938) point to the fourth approach, anthropological regionalism. Jans was a very talented draftsman who, in long biking tours through the meadows, ceaselessly drew farmhouses and barns in their context as well as symbols used on the main doors and roofs of the farmhouses. The lifestyle of the farmer, he said, was well known, and he visited hundreds of farmhouses and would sit chatting with the families in their living rooms. However, he acknowledged that no one could ever know precisely how they actually lived within the secluded spaces of their homes.

It is also important to note that Jans did not limit himself to the Twente region, but to the so-called Lower-Saxon region which includes the eastern part of The Netherlands and part of Germany.

3. Precedents of the OLTHA farmhouse

This section shows some of Jans' drawings picturing farms of the *hallehuis* ("hall house") archetype. It shows some characteristics of the *halle* houses that caught the attention of Jans during his biking tours through the east of Holland and Germany. The elements shown here were recollected and reassembled in his OLTHA *boerderij* in what one could call a regional syncretism.

3.1 Halletype

The typical *hallehuis* has the home and work areas of the farmer under one roof. It is a Lower-Saxon type, from the region which comprises part of Germany and The Netherlands.

Figure 1 and 2 show a very old *hallehuis* sub-type which has now almost completely disappeared from the Twente region. It is a sub-type called *los hoes* or "open house". The *los hoes* has no separation of living and work areas, few partition walls or fences separating the stables from a bedroom or living room. The cattle, pigs and sheep are taken through the large door at the front of the house to go to the fields and return to their stables, and grain is brought in through the same large door which is positioned toward the road to facilitate the movement of these goods.



1. Farmhouse Nysink in Beerze: *Lös Hoes* type (Ommen municipality, Salland, Overijssel province)



2. Interior of a Lower-Saxon farmhouse, painted by Hermann Daur (1902)

Initially, wealthy farmers constructed their houses at the back of the farm building but mostly under the same roof, keeping the large door facing the road. But farmers from the South-West Drenthe province in particular, noticing that they were losing a lot of storing space due to the entrance needed for vehicles bringing grain to the storage area and the movement of cattle in and outside their stables, repositioned the main entrance to the working areas on the longitudinal side of the farmhouse.^{xv}

Crossing the fields of Drenthe nowadays, one can hardly find a house which does not face the road. Probably the rotating of the house was made possible due to the positioning of the *nienduurn* (large door to enter the work area) on the longitudinal side of the building (Figures 3-5).



3. Barns in hamlets of Markelo municipality



4. Hoeve in Staphorst. Latter half of the 19th century.



5. Nienduurn

This innovation made a complete reorganization of the building possible. It is called the “*dwarsdeel*” type, a name which refers to the transversal entrance into the working area.

Other elements that one may see in Jans’ drawings are the *wolfsdak*, the *oelebord* and the *gevelteken* (gable signs).

The *wolfsdak* (Figure 6) is a gable roof with two sloping surfaces on the short sides. These sloping surfaces are called *wolfseind*. The slope of these ends is often steeper than that of the adjacent large roof surfaces. It is found in abundance in Drenthe and Overijssel^{xvi}.



6. *Wolfsdak*

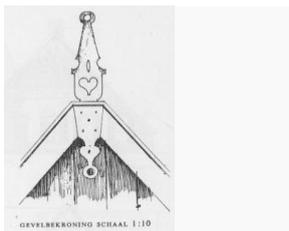
The *oelebord* (“owl board”) is a small triangular plate at the confluence of three roofs (Figures 7-9). It is used to protect against the ingress of rain^{xvii}.

The *oelebord* has one or more holes on its surface to allow owls to find a good place to make their nests. The owls were welcome for their hunting which reduced the mouse population and potential pest problems.

Almost all elements of the farmhouse came into being for their functionality. One of the few exceptions are the *gevelteken* which are found on the *oelebord*. They symbolize the identity of the farmers. According to Jans, “These gable signs show a practically unlimited number of varieties. Traditional forms are motifs of horse heads, tree-like symbols, heart-shaped signs and the Christian cross.”^{xviii}



7. *Oelebord with a gevelteken*

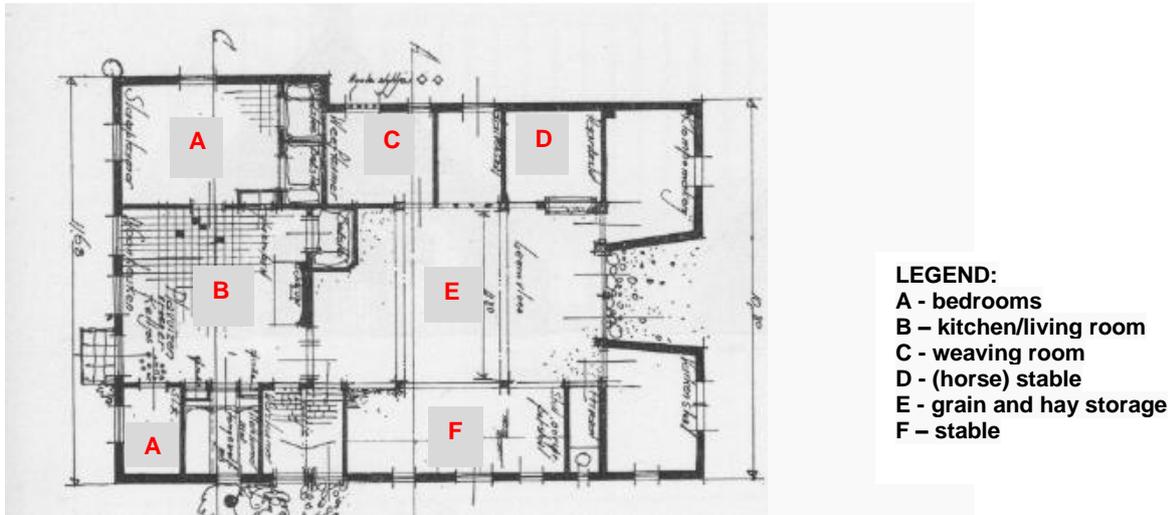


8. *Gevelteken of the Erve De Borg, 1840, Rekken, Eibergen*



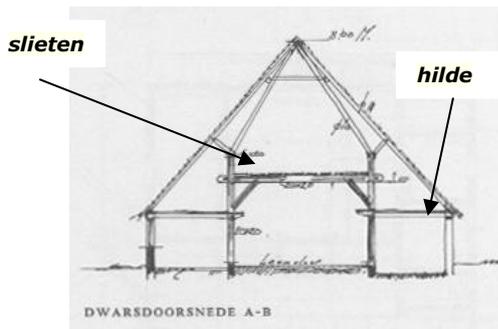
9. *Oelebord with gevelteken, Orvelte, Drenthe*

Structure: The *halletype* generally has a three-aisle structure, with the lateral aisles mostly used as stables but also as bedrooms and weaving room (Figure 10).



10. Plan layout of the Erve De Borg, 1840, Rekken, Eibergen

The central nave was used for storing grain and hay. Grain and hay were also stacked on the *slieten* (attic on the central aisles – Figure 11) and on the *hilde* (area on top of the stables – Figure 11).



11. Transversal section of the Erve De Borg, 1840, Rekken, Eibergen

It is interesting to note that some decorative motifs are based on function, such as the façades of the farmhouses in Orvelte, Drenthe (Figure 12). The thatched reed is more than just an ornament, it is used to ventilate the spaces inside.



12. Thatched reed on the façades of a farmhouse in Orvelte, Drenthe

4. Improving the halletype: OLTHA farmhouse, Twente, 1927

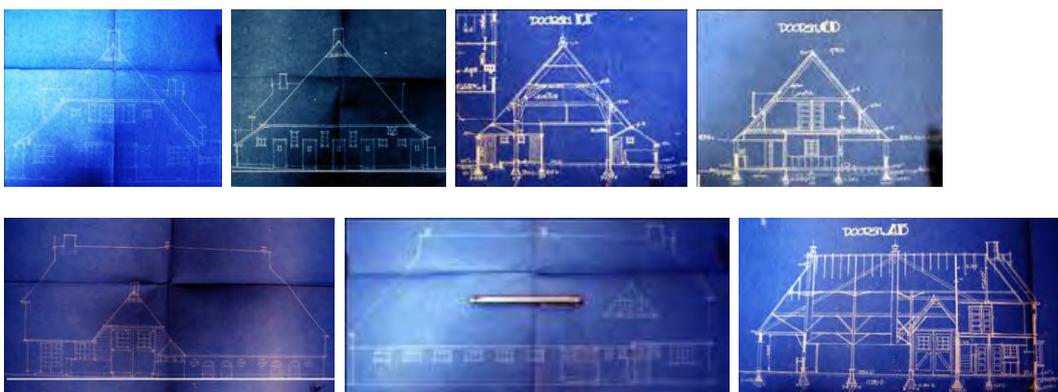
The problem of the traditional *halletype* for the modern farm:

According to W.C. van der Meer and H.T. Tjallema, the Twente *halletype* presented many obstacles, especially for mixed farms. The main problems were: too little storage space through the wide part in the middle of the farm; storing the harvest takes too much time and labor; storing the hay in the *slietenzolder* (loft) and *hilde bar* (aisle truss bar) produces too much dust in the working area; and finally, the cattle stand in an area that is too cold, making them restless^{xix}.

The OLTHA farmhouse:



13. The OLTHA farmhouse



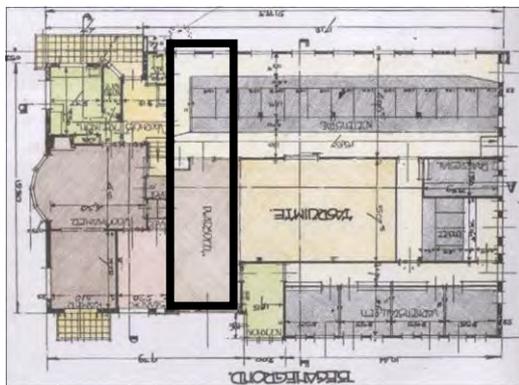
14. Drawings of the OLTHA farmhouse

The OLTHA farmhouse (Figure 13 and 14) aimed to improve the *halletype*, making it as modern, inexpensive and typical as possible of the West Twente type. The principles for improving the traditional *halletype* were: storage of hay and grains from the ground up in the so called *tasruimte* in the middle of the farm where it is highest

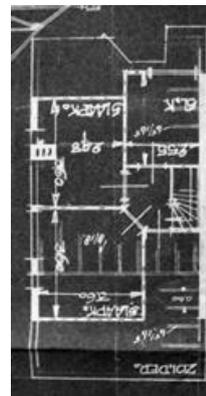
(central nave); making stables along all exterior walls where possible; and creating enclosed stables as much as possible.^{xx}

The characteristic elements required to make the farmhouse as typical of West Twente as possible were: a *nienduur* (large barn door at the entrance of the work section); a *wolfsdak*; an *oelebord*; and a robust building with monumental roof. The OLTHA farmhouse did not have a thatched roof or timber façades or timber partition walls; however, its tiled roof and the masonry were already a tradition in the east of The Netherlands.

The plan layout is modern (Figure 15 and 16), aiming to produce a building that is as economic as possible and an efficient modern farmhouse. The living area is located in front of the building separated from the work area, but under the same roof. There is access from the home to the work area, but if necessary the circulation can be disconnected since both parts have their own access from the outside world. The farmhouse, given the lateral entrance, is more close to the “*dwarsdeel*” type due to the use of the *nienduur* at the longitudinal façade and the *wolfsdak*. It is interesting to note that the plan layout below is the most well-known, however, this plan does not completely match the one found in the archives at the Enschede town hall. In the archive version, the *dwarsdeel* goes from the *nienduur* – the transversal entrance for vehicles bringing the harvest to a secondary door on the opposite side (Figure 15), which is what was indeed built. This could be used by the cattle, but also for small cars, enabling them to avoid reversing out. In other words, it makes the plan more efficient.



15. Ground floor



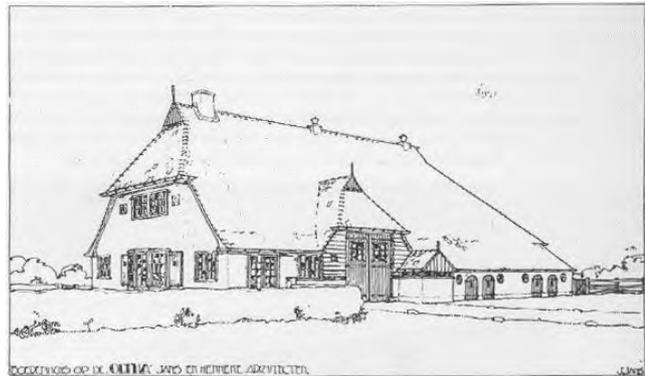
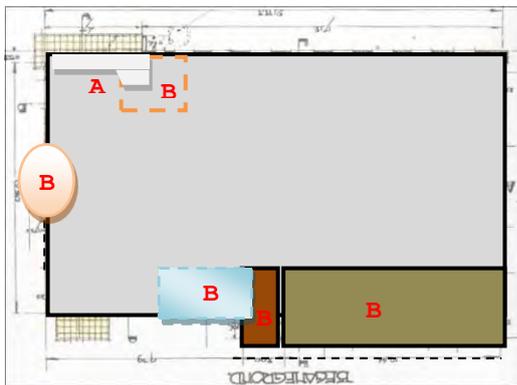
16. 1st floor



17. OLTHA farmhouse

Spatial relationship: monumental roof

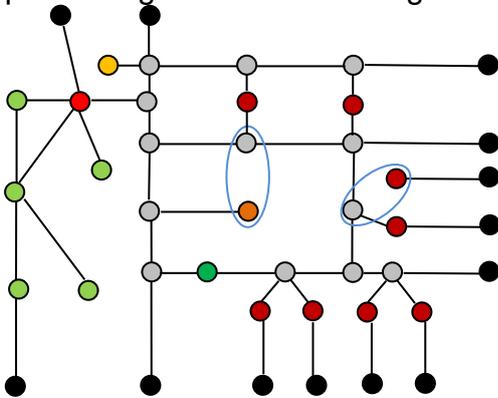
On the kitchen side there is a small subtraction of the main body of the farmhouse. Small elements such as the *nienduur*, swinery, oriel and a secondary kitchen interlock with the main body reinforcing its dominant presence (Figure 18). The *wolfsdak* in red tiles reinforces the monumental character of the building.



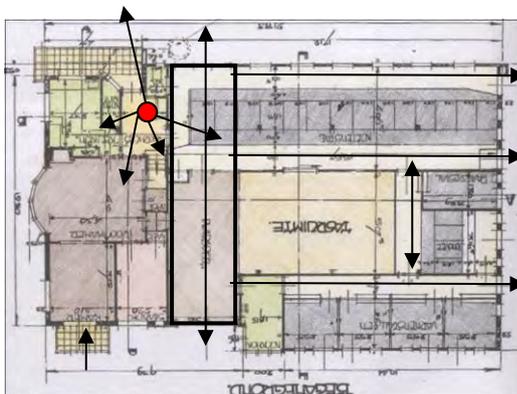
18. Spatial Relationship: A – Subtraction B - Interlocking elements: *nienduur*, window of the bedroom on the second floor, secondary kitchen (for preparation of animal feed) and swinery

Topology: accessibility

Living areas, stables and storage areas are separated in the OLTHA farmhouse (see illustrations below). However, all the spaces are accessible in a linear path passing sometimes through spaces, other times by spaces (Figure 19). The hall of the home (red dot – Figure 20) has a network function, connecting the outside world with the kitchen, stairs, living room and the working area (*dwarsdeel*). In the working area, each stable has access to the outside, which facilitates the cleaning of the stables but is probably also used for bringing the animals in and out. The storage room (*tasruimte*) is easily accessible via the *nienduur* and it is an enclosed space, preventing dust from entering the stables or the living area (Figure 21).



19. Access: path configuration: (mostly) path through space – black dot = outside



20. Circulation to use



21. Enclosed stables and living quarters

6. Reflections

According to Jan Jans, “what’s more important than preservation or restoration is when, inspired by the old, one knows how to give shape to the new. The regionalists, who strive for this ideal, don’t preach scary regional chauvinism, but rather a spiritual growth. Healthy regionalism rejects provincialism as much as unrestrained cosmopolitanism.”^{xxi}

This is also the position of the Critical Regionalists^{xxii}, being critical of regionalism as much as of the products of globalization. However, the Critical Regionalists, by using defamiliarization as a design tool, attempt to come to more innovative projects. By making the familiar unfamiliar (defamiliarization) but coping with the ever-changing life condition, they prick the mind of the people and give them an awareness of the present.

The OLTHA farmhouse satisfies all the functional aspects proposed at the beginning of the design process. Despite its changes one could consider some further changes to the style of living it offers.

The OLTHA farmhouse was built in 1927, when the modernists were designing in the zeitgeist with an eye to the future and linking mechanization with free time for all people. Analogous to life in the city, with the mechanization of agriculture, some free time might have been gained for the farmer and his family. Though compromising with the present, this project is too bound to the past due to its composition.

According to Jans, tradition is precious as long as it provides the means with which architectural issues can be resolved in the spirit of the time, to the perfect satisfaction of the client. If this is not the case, then even the most attractive tradition becomes reactionary (counteractive) and all our efforts should be focused on developing the foundations for a new tradition.^{xxiii} It was perhaps the time to develop this new tradition.

Jans, as a gifted and prolific draftsman, built an immense archive of innumerable aspects of the farmhouses of the east of The Netherlands. As an architect, he used numerous subtypes of the *halletype* as precedents in a regional syncretism. Perhaps his talent as a draftsman worked against an abstraction of the design elements, resulting in an over-familiarized use of precedents. It might have been that for Jans, the time was right for a new use of the farmhouse, but the aesthetics did not follow the same path. The aesthetics might have been entangled in its deep cultural roots.

The plan layout, though, might have provoked an element of surprise and estrangement for the inhabitants who were used to living with a more traditional and simple plan. Nowadays, many of the old farmhouses are being transformed into homes. The OLTHA farmhouse, after the exhibition it was part of, was transported to Witbreuksweg no. 204 in Enschede. It would be interesting to see how sustainable and adaptable it proved over the years.

For GA programmers, the question remains how to produce a tool for generating a critical architecture, to reinforce the identity of the place and create unique cities away from the flat world. In other words, to create a tool that generates buildings far from a soulless architecture but also far from the picturesque. How can we encode

this regionalism with all its facets? This is a question for the programmers, but molded by the regionalist architect.

Postscript: It goes without saying that these reflections refer only to the OLTHA farmhouse and do not extend more broadly to Jans' oeuvre. To get a better understanding of the architect Jan Jans, one should analyse several projects to examine whether there were some shifts or transformations of his initial principles.

References and endnotes

Documentation of the OLTHA *BOERDERIJ*: courtesy of the Enschede town hall archives

Graphic material: Jan Jans. 1967. *Landelijke Bouwkunst in Oost-Nederland*. N.V v/h Firma M.J. van der Loeff; with the exception of OLTHA perspective on page 10 which comes from F.G.H. Löwik, 2003, *Jan Jans: Leven en Werk (1893–1963)*, Almelo: Van Deirse Instituut

Photographs: all by Karina Moraes Zarzar, with the exception of the black and white photo of the OLTHA farmhouse on page 10

ⁱ Eleftherios Pavlides, 1991. "Four Approaches to Regionalism in Architecture", in: *Critical Regionalism: The Promona Meeting Proceeding*, edited by Spyros Amourgis, pp. 305–321

ⁱⁱ Liane Lefavre and Alexander Tzonis, 2012. *Architecture of Regionalism in the Age of Globalization: Peaks and Valleys in the Flat World*, London and New York: Routledge

ⁱⁱⁱ Castells, Manuel, 2004. *The Power of Identity*. In: *The Information Age, Economy, Society, and Culture*. Volume II.

^{iv} F.G.H. Löwik, 2003. *Jan Jans: Leven en Werk (1893–1963)*, Van Deirse Instituut, pp. 13–17

^v F.G.H. Löwik, 2003. *Jan Jans: Leven en Werk (1893–1963)*, Van Deirse Instituut, p. 24

^{vi} *Ibid.* p. 19

^{vii} *Ibid.* p. 27

^{viii} F.G.H. Löwik, 2003, *Jan Jans: Leven en Werk (1893–1963)*, Van Deirse Instituut, p. 69

^{ix} Jan Jans, 1934, *Bouwkunst en Cultuur*, Amsterdam: N.V. de Arbeiderspers, p. 46

^x F.G.H. Löwik, 2003, *Jan Jans: Leven en Werk (1893–1963)*, Van Deirse Instituut, p. 65

^{xi} F.G.H. Löwik, 2003, *Jan Jans: Leven en Werk (1893–1963)*: Van Deirse Instituut, p. 70

^{xii} God is "Het complex van krachten, dat ons leven leidt." [God is the complex of forces that guides our life] (p.54)

^{xiii} F.G.H. Löwik, 2003. *Jan Jans: Leven en Werk (1893–1963)*, Van Deirse Instituut

^{xiv} Free translation. Jan Jans, 1934, *Bouwkunst en cultuur*, Amsterdam: N.V. De Arbeiderspers, p.21

^{xv} <http://davdree.home.xs4all.nl/NL/boerderijen.htm>

^{xvi} Free translation from: <http://nl.wikipedia.org/wiki/Wolfsdak>

^{xvii} <http://www.ekbouwadvies.nl/bouwwoordenboek/termen/uilenbord.asp>

^{xviii} Jan Jans. 1967. Landelijke Bouwkunst in Oost-Nederland.N.V v/h Firma M.J. van der Loeff. p. 189

^{xix} Free translation. W.C. van der Meer and H.T. Tjallema. Text comes from an unknown source. From the Everhard Jans archives.

^{xx} Free translation. W.C. van der Meer and H.T. Tjallema. Text comes from an unknown source. From the Everhard Jans archives.

^{xxi} Free translation. Jan Jans, 1967, Landelijk Bouwkunst in Oost Nederland, Enschede: N.V. v/h Firma M.J. van der Loeff, p.5

^{xxii} Alexander Tzonis and Liane Lefaivre, 1996. "Critical Regionalism" in: The Critical Landscape. Edited by A. Graafland and Jasper de Haan. The Stylos Series. Rotterdam: OIO Publishers

^{xxiii} Free translation. Jan Jans, Text comes from an unknown source. From the Everhard Jans archives.