

Zeitschrift: Bauen + Wohnen = Construction + habitation = Building + home : internationale Zeitschrift

Herausgeber: Bauen + Wohnen

Band: 21 (1967)

Heft: 8: Bauen auf dem Lande = Constructions rurales = Farm construction

Rubrik: Summary

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Karl Wilhelm Schüssler, Thalwil

La ferme Presberg dans le Rheingau (Pages 316-319)

Pour la ferme Presberg de la Société pour l'amélioration de la structure agraire en Hesse, on a conçu une structure uniforme pour les bâtiments d'habitation et d'exploitation (module 62³). C'est la première fois qu'on employait, en construction, un système combiné, formé de parties en bois par collage et de profilés en acier léger. Les supports sont construits comme des croix: le profilé en acier léger en forme d'U dans l'axe X constitue un tel renforcement que la partie collée a été réduite au maximum.

Le montage est très simple: aligner, ajuster, réunir et visser. La construction et les éléments mureaux sont séparés.

Landbaumeister GmbH, Bonn

Projet d'une station d'essai pour bovins à Eickelborn (Pages 320-321)

Dans l'avenir, dans l'élevage des bovins, on accordera davantage d'importance aux capacités de viande que dans le passé où les caractéristiques de l'ascendance étaient uniquement observées en ce qui concerne le lait. Dans ce dessin, tous les jeunes taureaux sont gardés et élevés dans les mêmes conditions. Leurs étables communiquent avec le dépôt de fourrage et celui de la paille. Ces étables sont équipées d'un chauffage à air chaud. Plus tard, les taurillons sont amenés aux étables des taureaux situées à l'est de la centrale de fourrage. Ils sont attachés dans 5 étables ayant chacune une capacité de 60 animaux. Ces taurillons sont nourris uniquement de fourrage concentré et de foin séché à l'air.

Les bâtiments administratifs et les maisons d'habitation sont construits sur un étage.

Les étables de veaux et de taureaux sont en ossature de béton armé ainsi que la centrale de fourrage et le dépôt de paille. Ces locaux sont garnis de briques.

Les bâtiments administratifs et les maisons d'habitation sont en briques, y compris leurs toits. Les fenêtres constituent des éléments hauts d'un étage.

Staatl. Hochbauamt Reutlingen
Helmut Paul Schaber, Reutlingen

Construction d'une station test de ponts, à St-Johann, district de Reutlingen

(Pages 322-324)

Tâche: Le projet concerne un centre d'essai dans lequel on teste la capacité de ponts et la qualité des différentes races de poules.

Situation: La nouvelle ferme est située dans une forêt, à proximité de la station agricole de l'Etat, à St-Johann. Le corps de construction carré abrite environ 5200 poules pondeuses.

Exécution: Les poulaillers sont groupés en 4 parties semblables ayant chacune une capacité d'environ 1300 poules, soit 26 compartiments de 50 poules. Le bâtiment est chauffé à l'air chaud et son degré d'humidité peut être réglé. Le fronton est exécuté en béton coulé sur place, les étables sont construites par le montage de parties préfabriquées. Le toit en bois est double et aéré.

H. Frei, Flaach et Winterthur
Collaborateur: Peter Thalman

Lieu de vente pour ustensiles agricoles à Neftenbach (Canton de Zurich)

(Pages 325-326)

Il fallait concevoir des locaux abritant des bureaux, des salles d'exposition, des dépôts et des ateliers pour une entreprise qui vend des appareils agricoles et horticoles.

Le complexe est séparé en deux corps de construction correspondant aux différentes fonctions de l'entreprise. La partie réservée aux bureaux, aux salles d'exposition et aux ateliers est accessible par l'entrée centrale.

La construction est réalisée en acier, avec des éléments-porteurs extérieurs.

H. D. Blaneck, Stuttgart

Installation agraire-industrielle (Pages 327-329)

L'humanité du 20^{ème} siècle est caractérisée par une dépense d'énergie économique, technique et spirituelle inconnue auparavant. Le progrès technique transforme radicalement les éléments constituant l'organisation, les fonctions et les formes du paysage cultivé. Cet effet peut aussi être constaté sur nos conditions de vie. La planification et la construction en subissent également les conséquences.

Il devient de plus en plus impérieux de tenir compte du futur dans nos considérations présentes en vue de concevoir des projets. La maquette indique le développement d'une entreprise agricole dont les buts sont de compenser les différences sociales entre la ville et la campagne et d'augmenter la production agricole.

Silo à blé de Markelsheim, district de Mergentheim

Société Raiffeisen, centrale d'agriculture du Wurtemberg

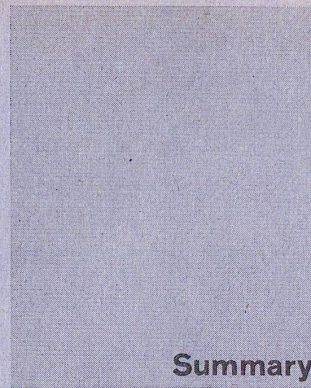
Année de construction: 1959

(Page 330)

Il s'agissait de construire un silo à blé d'une contenance d'environ 4000 tonnes et offrant la possibilité d'un agrandissement. Ce silo devait être réservé à du blé non nettoyé ainsi qu'à du blé à stocker chargé sur camions et wagons. De l'extérieur, on distingue précisément la partie du silo de «réception» et celle du «dépôt». Le silo de dépôt abrite, dans ses cellules sphériques, le blé travaillé, nettoyé et séché, prêt à être transporté au moulin.

Dans la partie rectangulaire, le blé est déchargé, nettoyé, pesé et séché. Nous trouvons ici le local des machines, la cage d'escalier et l'ascenseur. Toute la station est téléguidée de sorte que le personnel se compose uniquement de 1 ou 2 hommes. La hauteur totale du silo est de 43, respectivement 39 m.

Dans le silo de réception, il y a, en plus des machines de nettoyage et le dessécheur, 10 récipients rectangulaires ayant chacun une capacité de 90 tonnes et 4 autres récipients pouvant contenir chacun 50 tonnes. Ces récipients sont réservés aux différentes sortes de blé pendant le processus de nettoyage.



Summary

Rudolf Schoch, Stuttgart

Constructions on the country

Information for a better understanding of the situation

(Pages 291-293)

The contributions of this edition are mainly concerned with farm and country building and construction whereby it must be said at the onset that the widely accepted notion that only apparent rural specialists have the right and opportunity to influence rural architecture is wrong and requires correction.

The architect is well aware of the criticism that he is incapable of satisfying both town and country architectural design requirements, but here as on the town building sector, solutions are forthcoming less from routine practice than from critical efforts to become acquainted with an initially foreign sector by means of an analytical approach.

Farm and country architecture brings problems not met with in city and industry but the former is neither of lesser interest nor more difficult than any other planning sector.

Problems and tasks of the renewal of villages in Austria

Under the guidance of o. Prof. Dipl.-Ing. Dr. Rudolf Wurzer, architect, the studance of the Institut für Städtebau, Raumplanung und Raumordnung, supplied the following paper

(Pages 294-298)

Effective village re-planning in Austria would appear necessary since approximately 1.6 million people or 23% of the population reside in rural communities and of which half a million are not engaged in agricultural work. Statistics show that in 1961 two-thirds of roughly 4000 rural communities in Austria had less than 1000 residents, in which 16.5% of the total population have their residence. The necessity for village re-planning is also emphasized by the rural exodus. For each year over the period 1951-1961 roughly 31,000 wage earners lost their employment in rural enterprises due to advancements made in mechanizing rural operations. Over the same period approx. 30,000 farm and forestry undertakings closed down, all of which had property short of 20 ha. A further problem for village re-planning are the village buildings themselves; according to statistics taken in 1961, approx. 35% of the houses were built prior to 1880. New buildings activity following the end of the Second World War amounted to but 19%.

W. Hillendahl, Institut für landwirtschaftl. Bauforschung, Braunschweig

Planning of agricultural buildings

(Pages 299-301)

The influence of modern industrial practices on agricultural technology has resulted in new means of architectural expression as related to rural building activity. Even though the material substance of the village is developing ever increasingly into the real building requirement of the rural community, building and functional development trends are most clearly apparent in recent building activity, especially on remotely situated farm sites that have resulted during the last ten years across the length and breadth of West Germany, however

more in the south than in the west. The design and mode of construction evident in rural utility structures show the trend of rural improvement policies extending from the mixed livestock farming of the Fifties to the specialized production of today.

From this group of contemporary rural utility buildings three types are worthy of special mention since they exhibit basic differences in the method of construction.

- 1) Completed structures utilizing a single material.
- 2) Ready-made shed stables.
- 3) Pre-fabricated sheds.

It is advisable that both the architect and the owner give due consideration to the possibilities offered by multi-row enclosures since in most cases they usually offer the most practical solution. Their advantages are pointed out in this article.

Klaus von Campe
Landbau AG, Ober-Eschbach/TS.

Agricultural special plant near Giessen (Pages 302-303)

This complex was constructed and equipped in 1966 according to the design of architects in the employment of the Landbau AG - a firm of private consultants for rural building projects. What was required was to merge the complete complex into a single functional unit embracing the buildings required for operation and residence and to accommodate plant and machinery. The object of the specification was to re-site the former farm located in the village to a distance roughly 500 metres away mid-site in the farming land on a slope facing east: the former site had to be abandoned to give way to a new road.

Even though operations in the former establishment were highly organized - i.e. specialized in pig and poultry production, the nature of the buildings did not allow an increase in the number of 44 sows and 300 laying hens and requiring the work of 2.3 full working capacities.

Specialization of operation is to be preferred since it results in simplification from both the working and technical aspect. For equivalent exterior operations - outside of the enclosures - fodder and turnip production occupying 15 ha of land, the number of sows in the new farm was increased to 86 i.e. doubled, and the hen population increased to 1700 i.e. six times the previous figure.

Erich Heuermann, Hannover-Kirchrode

Agricultural plant for milk production in AZM system

(Pages 304-305)

The AZM coordination technique covers all dimensioning, task requirements and projecting as a whole. The origin of this development was contained in the specification placed by the Ministry of Lower Saxony in 1962 requiring an erection procedure for rural production facilities which satisfied the following requirements:

- 1) Possibility of variation and expandability.
- 2) Production line manufacture.
- 3) Fast completion.

This specification was based on the development during 1955/1956 of a manufacturing technique on the basis of which well over 100 rural production facilities were completed using reinforced concrete skeleton structures.

Hans Gallo, Hessische Heimat, Kassel

Erection of a verdure plant as pen-stables in North-Hesse

(Pages 306-308)

Work was begun on constructing this remotely situated rural complex in July of 1966. Production began in mid December of the same year. Land coverage is 17 ha. Livestock includes:

- 20 cows,
- 14 young cattle,
- 10 fattening cattle,
- 12 stall calves.

For economy of operation and due to personal influences and taking natural conditions into due consideration, pure green land operation with cattle farming was conceived.

The free hand given by the owner enabled structural elements to be utilized for both the residence and the utility buildings, thus resulting in the first-ever application of wooden frame elements with smooth asbestos-cement sheets dimensioned to 1.25×2.5. This is a decisive improvement over the shingle construction procedure. Efforts were made here to achieve unity of materials between shed and house despite differences in conditions and to lend the construction a closed, finished character by means of grey Glastal cornices enclosing the flat roof on all sides.

Franz Kiessling, Munich

Stable for feeding bulls in the periphery of Munich

(Page 309)

The task required of the architect was to design and equip a bull shed for town periphery operation requiring the work of one man only and covering 33 ha. of land, whereby the building must be capable of being converted for other operations at a later date (as a machine shop, for example).

Construction details: pre-fabricated, reinforced concrete posts with freely supported glued timber binders: both posts and binders having identical forms for the shed, silo roofing and plant and equipment shop.

Jürg Erni, Bruno Gysel

Agricultural estate Passwang

(Pages 310-311)

The valley enclosure and the absence of any other building enabled the character of the individual buildings to be freely selected and the industrial character of the operations to be expressed architecturally.

The variety of forms arising from the operational and technical requirements did not allow diversity of materials. This resulted in the use of Welleternit for the enclosing elements and facing concrete for all other supporting and insulating functions.

Niedersächsische Landgesellschaft mbH

Projekt: Rudolf von Oehsen

Agricultural plant Dubrow

(Pages 312-313)

Dubrow farm operates over 20 ha. of land and is mainly occupied with field crops. The architect was required to concept a combined pig and laying hen house, whereby the station could be useful for accommodating livestock at a later date by simply exchanging the interior elements. This requirement was met on the one hand by the width of the building (8.10 m = 26.25 ft.) and also by the loft adjoining the two displaced shed structures, both of which can be extended at a later date. The residence is located on the west side of the yard open at one end only. The complete complex was billed at a minimum of 150,000 DM.

Erich Kulke, Joachim Grube, Braunschweig

Constructive consultation: Paul Frenz

Rural residence, single farm, hamlet. Propositions for the pre-fabrication and variable utilization

(Pages 314-315)

The international competition "Die Europäische Wohnung 1965" within the scope of the Fair at Gent was devoted to the future farm in the possession of a single family, special emphasis being placed on the design of a farm house with accommodation for the giving due consideration to the existing constructional possibilities.

Residence to satisfy following requirements:

Kitchen and eating space,
Sleeping space,
Accommodation for the retired farmer,

comprises four box configurations of 7.5×7.5 m (= 24.6×24.6 ft.) grouped about the kitchen facility which together with the bath-room forms one of the two existing cores of the building.

Multi-Purpose Utility Building:

The requirement as to flexibility of operation was met by dimensioning the shed with a span of 11.25 m = about 36.9 ft.

Hamlet:

In the proposal for the future design of a large hamlet, seven to eight operations will be fused to a single unit in accordance with construction policies in built-up areas.

The residential buildings which can be extended to accept flexibility of application and the utility structures are grouped about the common shed housing - machine shop, vehicle shed and administration.

Karl Wilhelm Schüssler, Thalwil

Farm Presberg in the Rheingau

(Pages 316-319)

A combined living and operational building having a unit constructive structure (Modul 625) was designed for the Presberg farm of the Working Community for Agricultural Structural Improvements in Hesse. The construction - joining arrangement of glued wooden sections (Hetzer principle) with light-weight steel frames (used in carriage building) - has been used first here. The supports form a cross the light-weight steel U-form in the X-axis stiffens the whole, thus reducing the number of glued joinings to a minimum. Assembly operation is extremely simple:

erect,
line-up,
join,
screw together.

The construction and the wall elements are separated from each other.

Landbaumeister GmbH, Bonn

Establishment for tests in animal breeding in Eickelborn/Westphalia

(Pages 320-321)

The young bulls are housed in 5 stalls (60 to one stall) in the feeding station situated east of the central fodder and straw lofts. The bulls are fed only with enriched fodder and forced-draught dried hay contradictory to normal practice to obtain a good comparison. Each of the 5 stalls have natural lighting on both sides and spaced well enough apart to hinder the one influencing to other. Ventilation is achieved by means of an air-duct located immediately beneath the ceiling in the centre aisle of the shed - used air escapes through the windows.

Administration and residential buildings are one-storey buildings, consideration being given to the latter that despite their close spacing each occupier is undisturbed by his neighbour in each garden.

Administration and residential buildings: Brick walls and tiled roofing, windows dimensioned are storey high.

Hochbauamt Reutlingen
Helmut Paul Schaber, Reutlingen

Construction of a plant for testing hens in St. Johann, district of Reutlingen

(Pages 322-324)

Requirement:

Testing various breeds of hens for laying capacity to achieve comparable breeding statistics.

Situation:

To avoid the danger of infection and epidemics the hatchery is remotely located in a wood in the vicinity of the governmental agricultural establishment, St. Johann.

Designs:

The sheds accommodate four identical rows each for approx. 1,300 hens in groups of 50 pro 26 individual boxes. Warm air heating is used. Humidity content is controlled. The system can

be used during the summer months for ventilation and air discharge. The individual glass doms can be hinged open.

The head of the building is fabricated in ready-mixed concrete, the stalls in pre-fabricated concrete elements. The timber roof has two shells and is ventilated.

Place for sale of agricultural tools in Neftenbach (Canton Zurich)

(Pages 325-326)

A sales office had to be established for agricultural and gardening tools with rooms for offices, exhibition, stores and shops. The building was to be achieved in steel structure for purposes of display also. Taking into account the various functions of the services, the whole plant is clearly divided in two parts.

H. D. Blanek, Stuttgart

Agrotechnical plant

(Pages 327-329)

The contemporary problems of the rural districts may be characterized by mechanization, adaptation to new economic methods, differentiation of cultivation, the most favourable position, change from the maximum produce to the optimal produce. Both planning and architectonic consequences accrue from these consideration.

Grain silo Markelsheim, district of Mergentheim

(Page 330)

There had to be provided an extensible "collection silo" and a grain silo building of a capacity amounting to about 4000 tons. At the same time uncleaned grain was to be accepted whilst grain suitable to be stocked was to be carried off by means of trucks and tank trucks. The cylindrical grain storage silos can be easily distinguished from the "collection silos". It has been envisaged to increase the capacity later on by adding further six cylindrical cells. Here the prepared i. e. cleaned and dried grains are stocked until they are carried off to mills or malt-houses.

The whole machine plant can be remote-controlled, via the diagram, from the "acceptation" floor so that 1 or 2 persons will suffice to do all the work.

The total height of the building is 141 ft. and 130 ft. The outside coating has been chosen in order to emphasize the function of the building.