2 essay: materiality, design and communal life: the oberhausen institute as social project cornelia escher & lars fischer

it is often taken as given that floor plans mirror and preserve SOCIAL STRUCTURES and CULTURAL SYSTEMS. but how does architecture relate to the social? and what can a sociologically informed perspective contribute to our knowledge about architecture? in the past, sociologists have analyzed the layouts of buildings, from the typical kabyle house to french court architectures, as a source on past or distant societies. more recently, however, scholars have called for a more dynamic view, with a stronger focus on the processes of design and use.2 if architecture

DOI: https://doi.org/10.11588/artdok.00008080

Originalveröffentlichung in: Escher, Cornelia & common room (Hrsgg.): Negotiating Ungers 2: The Oberhausen Institute and the materiality of the social, Brüssel, 2022, S.12-85 Online-Veröffentlichung auf ART-Dok (2022),

¹ norbert elias, the court society (oxford: blackwell, 1983); pierre bourdieu, "the berber house or the

world reversed," social science information 9, no. 2 (1970): 151–170.

² thomas f. gieryn, "what buildings do," theory and society 31, no. 1 (2002); bruno latour and albena yaneva,

tells us about social and cultural habits and systems, how exactly are they transferred into a material form? rather than treating buildings as an articulation of the architect's will, they address design as a PRO-CESS, a negotiation.3 the product is often more incoherent and ambiguous than we admit, a collage and overlapping of various ideas and qualities which continuously interact with the desire to produce a convincing and overall form.

at the same time, there has been a stronger focus on the active qualities of architecture, its power

"give me a gun and i will make all buildings move: an ant's view of architecture," in explorations in architecture: teaching, design, research. edited by reto geiser, (basel:

birkhäuser, 2008), 80–9; silke steets, der sinnhafte aufbau der gebauten welt: eine architektursoziologie (berlin: suhrkamp, 2015). to shape actions and communal behavior. on the one hand, science and technology studies have drawn our attention to the fact that social behaviors are built into material artifacts, including buildings. their material, formal, structural and experiential qualities impact individual and collective behavior. yet "WHAT BUILDINGS DO"4 is dependent on how they interact with humans and thus also subject to a continuous process of transformation and redefinition. accordingly, more recent sociological studies have asked how

new york: routledge, 2000), 10–21.

³ cornelia escher and kim förster, "revisiting görlitzer park: material practices and the postmodern landscape," *landscript*, no. 5 (2017): 154–173.

⁴ gieryn, "what buildings do;" bruno latour, "the berlin key or how to do words with things," in *matter, materiality and modern culture*, ed. paul graves-brown, (london,

usability and meaning is later extracted, modified or created by individuals or groups, how is materiality read, experienced, or performed? in addition to more pragmatic aspects, questions of creativity, AESTHETICS and atmosphere also play an important role.5 this points to human bodies, sensuality, and actions activating these qualities not only individually, but also in processes of social encounters. people interact through positioning, gestures, verbal and

zahner (bielefeld: transcript, 2021), 128–140; theresia leuenberger, "the emergence of architecture-transformations: an examination of architecture experience from the perspective of the sociology of space and actor-network-theory," in architecture,

materiality and society: connecting sociology of architecture with science and technology studies, eds. anna-lisa müller and werner reichmann, (london: palgrave macmillan, 2015), 69–98.

creative exchange, and thereby—consciously or unconsciously—give meaning to a building and simultaneously make use of it.

in the following, these sociological perspectives are adopted in an analysis of the OBERHAUSEN INSTITUTE. this school complex designed by architect oswald mathias ungers is read less as a milestone of postwar architecture, than as a focal point of interconnecting architectural and social concerns, in our analysis, we are interested in the design strategies and NEGOTIA-TIONS accompanying the building process and to see how ungers takes a position towards the design of materiality, space, and the social against the backdrop of

⁵ hanna k. göbel, "entwerfen im kulturellen gedächtnis: zur atmosphärischen herstellung von architekturen in urbanen ruinen," in begegnung mit dem materiellen: perspektiven aus architektur, kunst und gestaltung, eds. cornelia escher and nina

contemporary debates on ARCHI-TECTURE, THE INDIVIDUAL, AND SOCIETY. importantly, we ask how the spatial layout is connected with educational principles and ideas on group formation, and how this helped—or did not help—to convince the public authorities to finance and execute the project. finally, we approach the qualities of the realized building in light of the daily experiences it engendered after the construction process was finished. how did material aesthetics, the physical properties of spaces and questions of layout and design relate to and interact with interpretations, previous knowledge of users, and the inventiveness developed in transforming the building?

planning the institute: origins and contexts

from the beginning, the oberhausen institute took shape in a transnational context, as it was planned in the newly divided territories of POSTWAR WEST GERMANY, in the wake of world war II, the german school system was reformed and came into the focus of re-education programs of the allies. though there was some opposition to many allied projects, demands for better accessibility to higher education, i.e. social mobility, had a certain impact. in the us zone in particular, school architecture was one of the fields where the americans

⁶ jochem kotthaus, "reeducation in den besetzten zonen schul-, hochschulund bildungspolitik,"

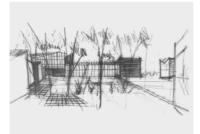
https://www.zukunftbraucht-erinnerung.de/ reeducation-in-den -besetzten-zonen -schul-hochschul-

und-bildungspolitik/ (accessed april 12, 2022).



view of the assembly hall building.

all images p.20–71: oswald mathias ungers, oberhausen institute, sketches and drawings, 1953–1956. image credit: ungers archiv für architekturwissenschaft, cologne.



looking towards the assembly hall from the campus entrance.



view towards the student dormitories.



looking from the assembly hall building.

saw an active potential for social change. the oberhausen institute, however, was located in the british zone, where progressive examples of british school architecture were hardly noticed. nonetheless, at an educational level, there was a search for alternatives to the *gymnasium* (secondary school) as a bulwark of german bildungsbürgertum (educated middle class). in this context, the oberhausen institute was developed as a MODEL PROJECT supervised directly by the ministry of education, as a new type of college, it offered the possibility of continued education to (young) people who

besides testing a new educational approach, the school was also designed to integrate STUDENTS with disrupted biographies, with their formative years lost to the war and its consequences, sociology and philosophy teacher willy falkenhahn portrayed a typical student attending oberhausen: a migrant from upper silesia, a region where the defeat of nazi germany had caused the frontiers to be redrawn and parts of the population had been expelled. the

festschrift, ed. verein der freunde und förderer des niederrhein-kollegs e.v., (oberhausen, 2003), 23.

⁷ katrin renz, testfall der moderne: diskurs und transfer im schulbau der 1950er jahre. (tübingen: wasmuth, 2015), p.188–193.

⁸ on the very limited nature of transfers and the progressive british programs in germany, see

renz, testfall der moderne, 336.

already had practical formation and experience and had missed the chance to graduate from a secondary school.⁹ besides testing a new educa-

⁹ gerold hurtienne, "geschichte und entwicklung 1953–2003," in 1953–2003: 50 jahre niederrhein-kolleg:

student had migrated from the east to the west in his early youth, lived and been trained in western germany and traveled to canada as a young adult in search of a better life, before coming to oberhausen.¹⁰ however falkenhahn's description did not only point to disrupted lives, but highlighted INDIVIDUALISM and life experience. the typical student was thus seen as an independent and selfconfident figure, not a blank page, on whose mind ideologies could be easily inscribed.

the SCHOOL OFFICIALLY OPENED in june 1953 and courses started in november of the same year in an

instituts e.v. (oberhausen, 1963), n. pag.

¹⁰ willy falkenhahn, "ein blick zurück," in 10 jahre oberhausener institut, ed. verein der freunde und förderer des oberhausener

existing school building, the founding director of the school was sociologist heinrich bauer who had published a number of papers on educational reform.11 his program for the school was ambitious: it included a belief in design as an educational tool and highlighted the importance of a good learning environment.12 bauer had initially met the young architect oswald mathias ungers via personal networks, 13 and in further meetings, the director and ungers with his team developed the project together and created the basis for a design which reflected their educational ideals.

¹¹ heinrich bauer, "schulen und reformen –zur aufgabe der bildung in unserer zeit," frankfurter hefte: zeitschrift für kultur und politik 7, no. 8. (1952): 595–608.

¹² heinrich bauer, "man sollte ein haus bauen können...: von der baukunst, der bildung und dem vierten zeitalter," baukunst und werkform 8, no. 3 (1955): 153–157.

¹³ according to cepl via the architecture journalist ulrich conrads or, as ungers stated in an interview, in the progressive intellectual circles surrounding the catholic priest and

in the early days of the school, bauer set up an entirely new PRO-GRAM FOR TEACHING, highlighting the students' individual responsibility. the first students took exams without supervision and there were no official school rules.14 bauer viewed the school as a new type of LEARN-ING COMMUNITY which also placed high demands on the teachers: in the beginning, there were no curricula—bauer opposed them as placing constraints on the creativity of teachers—and teaching materials were developed from scratch, on top

phenomenological philosopher romano guardini, see jasper cepl, oswald mathias ungers: eine intellektuelle biographie (köln: könig, 2007), 45; das bauhaus schulhaus, "interview mit dem architekten des oberhausen kollegs,

prof. oswald mathias ungers," in 40 jahre oberhausen-kolleg: festschrift, ed. verein der freunde und förderer des oberhausen-kollegs e.v., (oberhausen, 1993), 24.

14 hurtienne, "geschichte und entwicklung 1953–2003," 25. of full-day teaching and learning schedules. ¹⁵ official regulations from the ministry were not yet in place, and in the first years, the school experimented with oral exams as a group debate between four teachers and four students, and interdisciplinary teaching and team projects. furthermore, following the example of colleges in the us, the subjects sociology and economics became part of the pedagogical agenda. ¹⁶

in ungers' office, the task of creating a new experimental community of learning prompted different ways of organizing it spatially. the FIRST DRAFTS, dated summer 1953,

15 hurtienne, "geschichte und entwicklung 1953–2003." 25. 16 falkenhahn, "ein blick zurück."

presented two different prototypical solutions: in one, living spaces were arranged into a loose pattern of pavilions with in-between areas for workshops and discussions.17 the arrangement was combined with the existing school building and shared spaces such as an assembly hall, a club, a conference room, and the cafeteria. in the other prototype, the conception for housing a community materialized in plans for a centralized multifunctional building. like a smallscale phalanstère, translated into the postwar years of west germany,

17 according to the initials on the plans, the team working on the design in this early stage probably included otto bosbach, karl ludwig dietzsch and günther frank, as well as an unidentified

contributor signing with an "o"; see ungers archiv für architekturwissenschaft, köln, box "obhs: vorentwürfe, 2. teil (erste skizzen)." ludwig leo and stefan wewerka apparently joined the design team at a later stage, see gregor harbusch's essay in this book. the design tied communal areas and dormitories together. The design team explored different shapes for this building, but all of them were arranged in a clear, symmetrical layout structured along a central axis (see images p.40–41, book 1).

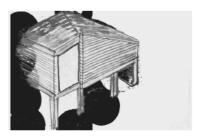
bauer appears to have taken the initiative to select an architect and proceed with the design before any OFFICIAL DECISIONS were made and the question of how to finance the project was solved, a bold move which proved only partly successful. in january 1954, he sent a letter to the ministry of culture informing them of the state of affairs. in this letter, he explained that he had selected the design with the pavilion structure, as it expressed his



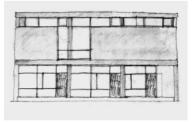
elevation study of the assembly hall building.



detail study of the lintels in the assembly hall building.



corner study of the assembly hall building.



elevation study of the cafeteria.

pedagogical ideas in the best possible way, his letter included a photograph of the model—a clear strategy to present the idea to non-architects and convince them that this was a project to be realized. The ministry of culture agreed to the plans and found a way to finance the student accommodation in particular with a fund dedicated to youth projects.¹⁸ yet the design was REJECTED outright by the ministry of finance; the reason given was that distributed pavilion structures had been abandoned for school construction as they were not economical.19

19 letter from the ministry of finance to the ministry of culture, 27 april 1954, landesarchiv nrw. nw 146. n° 69. 19.

the design: assembling the school community in reaction to the criticism, ungers and bauer modified the general layout by the end of 1954. in the NEW DESIGN, the smaller, dispersed structures characterized the more intimate and informal living spaces, while larger and more compact units would house the collective activities of learning, dining and teaching. ungers repeated the contrast between loose formations and more regular shapes in the courtyards: the plans suggested a rectilinear school court and the asymmetrically shaped wohnhof (semi-public courtyard) between the dormitories and the educational and communal spaces.20

¹⁸ heinrich bauer, letter to haugg, 20 january 1954, landesarchiv nrw, nw 146, n° 69, 7–9.

ungers went on refining the design in discussions with the administration until autumn 1955, when a mature and convincing plan spelled out the MOST AMBITIOUS SPATIAL PRO-GRAM of the institute (see images p.6–36, book 2), according to the principles of a learning community, the program included bauer's own house, facilities for student housing, communal spaces like an assembly hall, the school's cafeteria and group work rooms, as well as classrooms and laboratories for the natural sciences, the plan even featured a sculpture-courtyard. moreover, the landscape architect involved,

gustav allinger, developed a very detailed design for the green spaces, which integrated the existing trees on the plot.²¹

if we compare these later plans to the initial drawings, there is a striking difference in the structure of the imagined COMMUNITY LIFE, while the earlier drafts show the school as either a homogenous collective or a loose formation of individual or group activities, the plans now depict a certain HIERARCHY of private, group and communal spaces, the dorm rooms, each housing three students, were arranged in a cluster, each cluster was connected by a staircase,

there is also documentation in the universitätsarchiv, tu berlin, (bestand 448, signatur 1015).

²⁰ see ungers archiv für architekturwissenschaft, köln, box "obhs: 1. lageplan 1:500, 2. unterrichtsgebäude,

heimleiter wohnhaus,

internat,

^{5.} gruppenräume,

^{6.} studentinnenheim, jeweils in m 1:100".

²¹ the plans for the landscape architecture, which were not realized, are kept at the architekturmuseum of tu berlin.

which provided access to the toilets and bathrooms, a terrace facing the courtyard created a link to the neighboring cluster, groups of two, three and four clusters were interconnected to form three larger ensembles surrounding the wohnhof. the assembly hall, which ungers described as the "architectural and spiritual core," embodied community life and the apex of this hierarchical structure. ungers placed it in between the two main courtyards, at the spatial NEXUS between learning and living.²²

in order to understand the correlations between social and material issues in the design, one needs to con-

2. unterrichtsgebäude,

sider its status as a model project for DEMOCRATIC RE-EDUCATION, which in this case, we can assume, was tied to a certain idea of communal living, similar to the american or british college, it housed the students and also part of the teaching staff in facilities on the grounds in order to involve them more deeply in an overall educational approach. as such, it was charged with utopian expectations, shaping the social interactions of those who were part of the project, these expectations were also part of a political framework. for example, a contemporary discussion on student housing in the german weekly professional journal bauwelt highlighted the importance of student living for the

²² see ungers archiv für architekturwissenschaft, köln, box "obhs: 1. lageplan 1:500,

^{3.} heimleiter wohnhaus,

^{4.} internat,

^{5.} gruppenräume,

^{6.} studentinnenheim, jeweils in m 1:100".

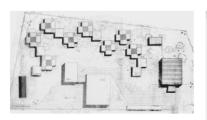
politics of society's education for democracy: on the level of student housing communities, the author argued, the young democratic system of postwar west germany could prove its effectiveness on a group scale. if democracy worked on the small scale, there were grounds for hope that it would also work on a larger societal level.23 the scale of the GROUP-rather than the community—gained attention because of the tension identified between the individual and social collectives, which was at the center of contemporary debate. as stalinism and fascism were viewed as the main

23 on the discussion on student living, see for example *bauwelt* 50, no. 51/52 (1959), which asks "how the new generation lives" and features the oberhausen institute on pages 1506–09.

threat to western democracy, the idea of a mass society and its de-individualizing forces came under criticism. the smaller unit of the group or the team, which could be assembled into a larger, but DIFFER-ENTIATED ENSEMBLE, became attractive as an alternative model.²⁴

these ideas about society may have impacted ungers' design, which segmented the larger community of the school into SMALLER UNITS. in the building as it would finally be realized, something of the more homogeneous, block-like structures, which can be discerned in the symmetrical layouts of the initial

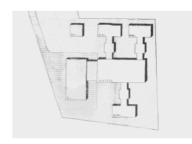
24 bauer takes up these ideas in bauer, "schulen und reformen—zur aufgabe der bildung in unserer zeit," 604–605.



site plan. preliminary campus design (pavilion structure), 1953.



site plan. preliminary campus design (centralized multifunctional building variation 1), 1953.



site plan. preliminary campus design (centralized multifunctional building variation 2), 1953.



site plan. preliminary campus design (centralized multifunctional building variation 3), 1953.

planning phase, remains visible, notably in the design for the teaching facilities. but in the later design, the axial symmetries present in the initial drafts have disappeared in favor of mostly asymmetrically composed facades that carefully avoid any appearance of monumentality.

ungers gravitated towards new ideas and design strategies centered around the individual and its relationships, which were the subject of much animated discussion at the postwar congrès internationaux d'architecture moderne (CIAM). in 1953, ungers took part in the ninth ciam meeting in aix-en-provence, marking the origin of a group that was later to become known as TEAM X. its members sought to reform

modernism from the inside by breaking away from its more rigid, functionalist dogmas. both forums, ciam and team x, discussed space and the individual as basic components of social life and suggested modular or patterned schemes and clusters. while among team x architects, the discussion of spatial relations prompted specific attention being paid to the THRESHOLDS between individual and public spaces and to the dialogue between artefacts and humans, ungers, at the oberhausen institute, paid particular attention to threshold spaces as terraces and balconies occurring as intermediate zones,25 and to how

25 see veronica emilia tapia abril in this book.

the gaze is directed. here, ungers' design did not only refer to group units, but also to individual experiences and encounters. building volumes were organized according to the social units or the functions they housed, but ungers also took into account the dynamic interrelations occurring through actions and movements in space.

at the team x discussions, one could observe how the architects highlighted the reciprocal influences between architecture and the social, down to the level of individual lives. they appear to have anticipated the demands that were to be placed on their profession by the WELFARE STATE SYSTEM and articulated shared ideas about society and the

place of the individual, which should not be assimilated into a homogenous mass, rather than discussing precise sociological analyses, team x architects included elements of existentialist or phenomenological thought in their arguments and focused their attention on the EVERYDAY, such as the doorstep, the sensual experience of RAW MATERIAL, the shape of one's immediate and personal surroundings or moments of encounter.26 this served as a source of inspiration for ungers, and may have created a link to the ideological background of the founders of the oberhausen

26 see for example hadas steiner, "life at the threshold," *october*, no. 136 (2011): 133–155; karin jaschke.

"architecture as artifice," journal of architecture 6, no. 2 (2001): 35–144.

institute, who also referenced phenomenological ideas and the inclusion of everyday experience into the domain of education.²⁷ although ungers then did not directly reference the idea of an INDIVIDU-ALIZATION of space in his descriptions of the oberhausen institute, he took up the concept later in order to argue in favor of his designs. when ungers described his project for a gymnasium in opladen in 1959, he made an explicit statement on how the school was to impact individual users: the varied spaces of the school and the spatial experiences they generated were intended to lead to

27 a phenomenological interest can be discerned in the references to schopenhauer and the religious philosophy

of romano guardini.

a differentiated view on how a school functioned as a community. ungers stated that the school could serve "to bring students closer to the liveliness of a school community in terms of the spatial composition in order to address the personal and individual in the student—in contrast to the anonymizing effect of additive room arrangement."²⁸

ungers was able to form an alliance with bauer on the basis of shared ideas on spatial layouts and other common interests: both intended to realize a large and innovative project, and hoped to convince the authorities to finance it. they were

28 "ein werkstattbericht: bauten und projekte von oswald mathias ungers, köln," bauwelt 8, no. 51 (1960), 216, translated by the authors.

successful in persuading the ministry of culture, however the open formal layout and the atypical shapes of the roofs ungers suggested in his plans were met with continuing RESISTANCE from the PLAN-NING AUTHORITIES, as they ran counter to their ideas of what a school building should look like.²⁹ in spring 1954, the ministry of finance rejected the pavilion scheme in the first application. the ministry of reconstruction, which oversaw public building projects, continued this hostile stance towards a more dispersed and detailed structure and harshly rejected the modified 1954

wolfgang döring, helmut hentrich, hans kammerer, frei otto, oswald m. ungers, heinrich klotz, ed., architektur (frankfurt am

1506-09.

proposal.30 possibly in reaction to this criticism, ungers and bauer decided to publish the unfinished project in the journal baukunst und werkform³¹ in order to highlight its relevance and seek public acclaim. throughout 1955, negotiations continued and led to some compromises, but the general idea of the design remained intact. no accord was reached: conflicts slowed down the planning process and nearly lead to a standstill towards the end of 1955, when the first building phase, the student housing, was finally initiated.

the ideological context of the

(1955): 153–157.

^{29 &}quot;gespräch mit oswald m. ungers." in: architektur in der bundesrepublik. gespräche mit günter behnisch,

main. wien. berlin: ullstein, 1977), 293-294. "oberhausen/rheinland." bauwelt 50, 51/52 (1959):

³⁰ statement of the ministry of reconstruction, 29 december 1954. landesarchiv nrw. nw 146, n° 69, 57.

³¹ oswald m. ungers, "entwurf für den neubau des 'oberhausener instituts'," baukunst und werkform 8, no. 3



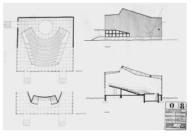
ground floor plan. preliminary campus design, detail (pavilion structure), 1953.



separate cafeteria and boiler plant, detail (pavilion structure), 1953.



floor plans. cafeteria and boiler plant (pavilion structure), 1953.



assembly hall (pavilion structure), 1953.

conflict becomes clearer if one compares ungers' project to the existing school building from the 1930s, which presented a kind of prototypical pre-war solution. it was a longitudinal building, a clear rectangular volume with a gabled roof and a central entrance. by contrast, ungers design for the community rooms and the dorms DISASSEM-BLED conventional building volumes into more complex spatial figures. the different parts of the building were discernible from the exterior, and were also highlighted by different roof structures, expressing the importance of individual parts in contrast to a unified appearance. in 1951, a polemic was published in the journal bauen und wohnen, its author

underlined the need for compact volumes and traditional "german" schoolrooms with a clear ORIEN-TATION, which would help students to focus on the teacher and the blackboard, the author explicitly condemned the more intimate and irregular shapes of the "american" school.³² it seems that the ministry of reconstruction followed this CONSERVATIVE stance, in their initial refusal, the ministry stated that the design was "inorganic and uneconomic due to its confusing grouping and fragmented design" and that its "shortcomings" were so serious and fundamental that any

32 renz, testfall der moderne, 42–46.

more detailed analyses of the proposal instead of an outright rejection would only be a waste of time.33 during the planning process, they continuously criticized the shape of the roofs and the outline of the buildings, aspects that were simplified in the following iterations. the relentlessness with which the ministry objected to the plans shows that there was probably more at stake than merely formal or financial issues. the ministry of reconstruction as a representative of the welfare state ultimately remained deaf or even HOSTILE towards the arguments in favor of a formal language

33 statement issued by the ministry of reconstruction, 29 december 1954, landesarchiv nrw, nw 146, n° 69, 57. developed in close dialogue with contemporary ideas about a democratic society, groups and the individual.

in march 1956, bauer was replaced as the oberhausen institute's director, probably due to his demanding teaching program and organizational deficits.34 ungers had lost one of his strongest allies, but was subsequently commissioned to build bauer's private home in oberrath in 1960.35 limited financial means and the more modest expectations of the new directorship lead to FURTHER CHANGES in the design, by the end of 1956,

34 hurtienne, "geschichte und entwicklung 1953–2003," 26.

55

35 gilda giancipoli, "oswald mathias ungers: belvederestraße 60. zu einer neuen architektur," (dissertation thesis, università di bologna, 2015), 480–481. the ministries of reconstruction and culture decided to give up the plans for a separate building for teaching facilities.36 ungers and his team SIMPLIFIED the design for the building housing the communal spaces and included the laboratories, which may have seemed the most urgent addition to the existing teaching facilities, in an added building wing. in so doing, they hid away the assembly hall, which previously had been visibly expressed on the exterior, in the interior of the building, and blurred the initial separation between classrooms and communal spaces, the wing housing the

36 see landesarchiv nrw. nw 146. n° 71.

teaching facilities took up a serial motif of horizontal window-strips extending along the facade.³⁷ this modified design was finally executed and completed in 1959.

the school as it was built and experienced: atmosphere and internalized rules in an early comment, the teacher willy falkenhahn described the new school as a phoenix rising from the ashes. against the backdrop of visible decay, war damage, and the rough industrial scenery of oberhausen, he conjured up the spirits of german poetry, philosophy, and

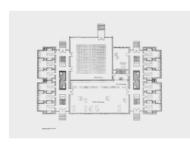
37 ungers uses a similar facade for the contemporary student dormitory building in kölnlindenthal realized in 1956–1957.

religion as "ways of accessing the meaning of human existence." his description appears as an authentic voice from the 1950s, somewhat solemn and maybe unconsciously pretending that nazism had just swept by without touching the essence of german spiritual life. the HUMANIST IDEALS that drew their energies from these spiritual sources, he seems to suggest, were present before the new building took shape and were to be reawakened in the school, "and over all this," he observed "the blanket of SMOG of oberhausen hung, the yellow clouds of sulfur gathered from the ironworks, and the sooty dust of the mines sank down gently and quietly—covering everything."38

by contrast, the whiteness of the window frames of the new science building caught the eye when one entered the campus from the street side, passing by the old brick school building dating from the 1930s, the MODERNITY of the building and its fragmented shapes must have appeared as something both familiar and new to the arriving students, the school was connected to the local environment and its materialities and, at the same time, broke with some of the formal traditions and could thus stand for a new beginning.

this contemporary description

38 falkenhahn, "ein blick zurück," translated by the authors.



ground floor plan. preliminary campus design (centralized multifunctional building variation 1), 1953.



basement plan. preliminary campus design (centralized multifunctional building variation 1), 1953.



side elevation. preliminary campus design (centralized multifunctional buildingvariation 1), 1953.



front elevation.
preliminary campus
design (centralized
multifunctional building—
variation 1), 1953.

gives some idea as to how the institute was interpreted and experienced in the early years, however, it is difficult to track the precise effects of the institute's ATMOSPHERE and the meanings contemporary students and teachers might have given to its architectural features, in our INTERVIEWS with several former students, the unconscious and largely unarticulated daily impact of the building on behaviors can only be approached through the lens of later interpretations.39 however, we can still try to establish the frames that were at hand for the interpretation of the school's atmosphere and

39 see the interviews with heinz isselhorst, ilse and bernhard eis, christoph fischer in this book.

material aesthetics in the contemporary professional and public debate. Moreover, we can grasp the SOCIAL ROLES and rules embedded in and performed by the architectural settings by combining later descriptions with the properties found in the design's spatial layout.

the MATERIAL AESTHETICS of the school refer to local and RE-GIONAL TRADITIONS: as in the old school building, the institute's new facilities also used brick as a comparatively cheap and durable material commonly employed in the industrial city of oberhausen. modernist brick buildings in oberhausen include the gutehoffnungshütte depot (1920–1925) by peter behrens and the central railway station

(1930–1934) built by karl herrmann, an architect employed by the reichsbahn, there is a broader regional horizon for the meaning of brick in these buildings: in the 1920s, critics who attempted to define an identity for the lower rhine region described brick as the expression of a humanist, craft-oriented modernity with strong regional ties, one that was specific to this geographical and cultural era. 40 following this tradition, BRICK would have seemed the most suitable choice for a humanized modernity in the postwar period.

ungers himself also used brick for the houses he built in cologne at the

40 jürgen wiener, "backstein am niederrhein: sinn von konstruktion und konstruktion von sinn,"düsseldorfer jahrbuch 86 (2016): 267–296. for fritz schumacher, the same would appear to be true for the northern

region of germany, see fritz schumacher, das wesen neuzeitlichen backsteinbaues (münchen: callwey, [1920]), 9. time, including the house for his own family, which was finished in 1959. both his study of modern examples such as fritz schumacher's brick architecture and the more recent REVIVAL OF BRICK among the precursors of brutalism may have contributed to this decision.41 similarly, ungers and bauer paid attention to the trees formerly planted by a botanical society on the site. but were not particularly convinced by the designs delivered by allinger. 42 more than the ornamental landscape designs, these gave a center to the living courtyard without dis-

41 ungers was familiar with both, see cepl, oswald mathias ungers, 41 and 56.

42 see for example heinrich bauer, letter to the ministry of education, 4 august 1955, landesarchiv nrw, nw 146, n° 69, 85–86. turbing a certain idea of ROUGH-NESS, purity and clarity.

it is unlikely that the first students were familiar with fritz schumacher's description of the aesthetics of brick, which he saw as bound to the "breath of fire-born life that is in every good brick," but also to the rigidity of its formal language. 43 moreover, schumacher attributes an educational value to brick, which he refers to as the disciplining forces the material exerts notably on the architect, preventing him from formal excess and "dishonest" use.44 at the oberhausen institute, brick underscores the hard edged precision of the

43 schumacher, das wesen neuzeitlichen backsteinbaues, 17 and 59. 44 this aspect has been highlighted by ákos moravánszky, "the pathos of masonry," in *constructing architecture*:

materials, processes structures. a handbook, ed. andrea deplazes, (basel, boston, berlin: birkhäuser, 2005), 28. lines and a formal SEVERITY, privileging rectangular shapes. to the students, in their everyday lives, the material might have implied SIM-PLICITY and warmth, the feeling of living in an ordinary and everyday place assembled with precision and craftsmanship.

in the material appearance of the oberhausen institute, we can find some relation to BRUTALIST ideas theorized at that time and displayed in some of the team x designs. they highlighted HONESTY towards constructive features, readability of the overall structure, as well as a visual and tactile experience of raw materialities. In some of the buildings' parts, the effects of a raw and unclad materiality are aesthetically explored,

though not as radically as in most of the icons of contemporary brutalism. in the assembly hall, for instance, a relief combines concrete and brick in abstract shapes, this fragmented wall of the assembly hall served as a place of identification and REP-RESENTATION for the school community, a contemporary photograph by rudolf holtappel highlights how the PERFORMANCE of musicians during a school event interacts with this visual background (see image inside cover, book 1). on the facades, concrete lintels are expressed above the windows, most prominently in

45 on brutalism, see for example oliver elser, philip kurz, peter cachola schmal, felix torkar, and maximilian liesner, eds., sos brutalismus: eine interna-

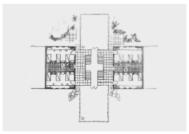
tionale bestandsaufnahme (zurich: park books. 2017). the windows of the staircase,⁴⁶ where the shape of the staircase is repeated on the exterior.

the application of materials also supported the READABILITY of spaces, the specific care which is given to the transition from the interior and to the exterior spaces is expressed in the design and appearance of the surfaces: brick walls line the central courtyard, but also the assembly hall and the circulatory spaces, whereas classrooms and living rooms are painted in white, the science building with the science classrooms is fitted with relatively thick interior walls with

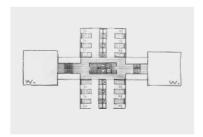
46 on the window of the staircase, see the position by annelien seys, başak işik & robin vleeschouwers in this book.



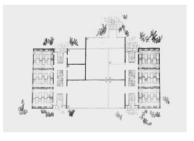
ground floor plan. preliminary dormitory layout option, 1953.



ground floor plan. preliminary dormitory layout option, 1953.



ground floor plan. preliminary dormitory layout option, 1953.



ground floor plan. preliminary dormitory layout option, 1953.

built-in cupboards for teaching materials. here, material is used as a means of ORIENTATION, creating a sense of being inside. the brick surface partly disappears behind white paint, creating a more neutral and lighter space. the large window wall of the cafeteria creates an openness which made the room, together with the terrace in front, the heart of social exchange, we can note how the MATERIAL QUALITIES, like the transparency towards the courtyard, were employed in order to FOSTER COMMUNICATION, to create a bright space with a nice view.

from the interviews with former students, it seems that the qualities of the rooms were perceived as being supportive for their learning

activities and personal well-being. but on what basis can we say that the DIFFERENTIATION of volumes according to the group structure, which was such a central and critical issue in the planning process, actually contributed to the READABILITY OF COMMUNAL STRUCTURES? did the layout help students discern their specific place in the overall structure? although the former student ilse eis describes the distributed spaces of the living courtyard as welcoming, the effect of the specific design intentions is difficult to gauge in retrospect. meanwhile, given the discourse on the individualization of spaces and the importance of the group, it is striking that in the interviews the COLLECTIVIZING forces

of the architecture are highlighted. one major reason is that the dormitories housed three students in one room, which seems surprising from today's perspective, but less so in the immediate postwar period, with its pressing housing shortage.47 the former student heinz isselhorst, who was among the first to have lived in the new spaces, described community life and the LIMITATION OF PRIVATE SPACE as a disciplining force. he described a set of rules, or as it were, the CODES OF CON-DUCT that the students developed themselves in reaction to this situation, which also included sanctions.

47 since the 1970s, rooms are rented to individual students, see kristina hilder-theil, "die geschichte des nrk und der brd im wandel der zeiten," in 1953–2003: 50 jahre nieder-rheinkolleg: festschrift, ed. verein der freunde und förderer des niederrhein-kollegs e.v., (oberhausen, 2003), 42–45. it seems that the certain degree of rigidity noted by the early students did not originate from external rules implemented by the school's authorities, but from the expectations embedded in communal life. if we consider the hesitation to establish an explicit and spelled-out set of regulations, it seems all the more convincing that rules were also RELE-GATED TO THE SPATIAL CONTEXT and the material setting.

the observed adherence to a set of implicit rules is not necessarily in conflict with the paradigm of individualization, as formulated notably by contemporary architectural debate. the phenomenological discourse in architecture on the individual and its spatial experience

departed from the assumption that experiences could be personalized and appropriated, but referred to a COMMON BASIS. similarly, the social life of the school, while highlighting the individual and its personal responsibility, was closely embedded in a SOCIAL FRAME-WORK of school community and society at large. in germany's CON-SERVATIVE CLIMATE of the 1950s, individuality might have been better described as "performing one's role" within society by giving it a personal touch.48 the performance of this role, which evokes the metaphor of the theater, involves the creativity

48 this is suggested by ungers' collegue werner ruhnau in the early 1960s, see cornelia escher, zukunft entwerfen: architektonische konzepte des geam (groupe d'études d'architecture mobile) 1958–1963 (zürich: gta verlag, 2017), 107.

of actors, but it most commonly excludes excessive deviation from the script.⁴⁹ individual freedom was not to go beyond the limits of the COLLECTIVE STRUCTURE.

the implicit rules of the building were perhaps most notably expressed in how the design addressed GENDER roles. male and female students were strictly SEPARATED and housed in different buildings. while the first drawings by ungers did not reflect gender issues, the final version of the plan specifies that female students were to ccupy one third of the dormitory rooms.

49 erving goffman, who at the time developed a theory of how humans perform social roles in specific social settings by comparing them to actors on a stage, acknowledges that individuals may dissociate themselves from their role or identify with it, but does not discuss how they could possibly escape it, see erving goffman, the presentation of self in everyday life (new york: doubleday, 1959).

"protective" elements, which set female spaces apart from the shared spaces, emerged during the design process. the terrace in front of the dorms for young women was SHIELDED by a wall, transforming it into what might be understood as a semi-private courtyard with a small opening directed away from the boys' housing clusters. moreover, female students were allocated a separate garden or wohnhof für mädchen (girls courtyard) oriented towards the outdoor surroundings (and again, protected by a wall from the outside) and facing away from the general courtyard. by the end of 1954, a wall appeared between the boys' houses and the girls' courtyard, intended to PREVENT HIDDEN

TRANSGRESSIONS. even if this wall was later omitted, it is difficult not to note how women were shielded from the overall public spaces in the planning process. at least, this seems to have been an issue of concern, going back and forth between more explicitly conservative and discriminating designs and more open solutions.

in practice, the spatial separation proved less strict than actually planned, as the design had to be ADAPTED for practical reasons and departed from the initial concept. the dormitories were originally tailored to house three bachelors. couples and families were not considered in the gendered spatial program. yet, in the first years,

some of the teachers and their families lived in the housing units designed for the female students, which had been adapted for this purpose.⁵⁰ in addition, parts of the work rooms, which were reduced during the planning process, were accommodated in this block, the INVENTIVE-NESS of some of the students, which included a bending of the rules materialized in the plans, was another contributing factor, the separation between genders was made less rigid by some of the students who RECON-FIGURED the space in such a way as to avoid changing the script, while nonetheless representing a creative

50 apparently there were fewer female applicants than expected, so that two young women could

share one room, see interview in this book.

reassignment. by placing a coffee table on the threshold between the restricted girls' hallway and a public work room, they were able to establish a shared social space without breaking the official roles.

conclusion in his design for the oberhausen institute, ungers draws on contemporary team x ideas of arranging spaces to foster social interactions and community life. his view was in line with those of the institute's director and the more PROGRESSIVE elements in public administration, but was rejected by its more CON-SERVATIVE building experts. the image of the young ungers in conflict with the conservative forces he

himself sketched out is, however, not easy to uphold if we look at some of the features of the plan that were not articulated during these discussions. with regard to gender issues and the limitation of individual space, it becomes clear that the building design is not as progressive as it claimed to be, while it stands for a DEMOCRATIC SOCIETY based on the unit of the group assembled into a larger whole, it partly supported the status quo of social interactions which followed STRICT NORMS and roles.

if we can claim that the students redefined the use and experience of the buildings in order to adapt them to their needs from the beginning, we must also note that ARCHITECTURE

is a relatively STABLE ARTEFACT. yet in the case of the oberhausen institute, the social context, and partly also the cultural meaning of education, has shifted from the confined humanism of the 1950s towards the outspoken individualism of the digital age. how has the oberhausen institute responded to these transformations and what does this mean for the materiality of the social? during the design phase, neither adaptability nor openness of spaces figured among the major concerns of the planners. by contrast, the SPECIFICALLY PLANNED and detailed spaces of the institute were developed with the institute's intended social life in mind. we might thus expect some

major changes in the built structure, paying tribute to the shifting contexts, educational values, and lifestyles. however, even though teaching facilities have been added and the number of communal spaces decreased, the overall layout of the institute has SURVIVED surprisingly well.

from our analyses of the material and conceptual qualities of the building, it appears that adaptability and openness are not the only qualities that support a long life of a building, if we note, on the one hand, that less determined spaces leave more choice to the users. it seems that the very SPECIFIC QUALITIES of a certain space are equally important in order to sustain an aesthetic and social

capacity which calls for interpretation, in the case of the oberhausen institute, we might ask WHICH FEATURES continue to INVITE students and teachers to create and re-create the buildings' meaning and its uses. what part of the original structure remains in the PRO-CESS OF RE-DEFINITION and modified uses? if the oberhausen institute is successful in re-inventing its materiality, it might be a building—and a social community—which possesses a quality its material-brick-was often hailed for: it has an existence of its own, resplendent in the eyes of the beholder. it retains its BEAUTY, despite air pollution, and even improves with age.