

VOL III

# EDUCAÇÃO E ENSINO NA ERA DA INFORMAÇÃO

**Luis Fernando González-Beltrán**  
(Organizador)

 EDITORA  
ARTEMIS  
2024

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## PRÓLOGO

Los acelerados avances en las tecnologías de información y comunicación cambiaron el mundo en todas sus facetas, y la Educación no fue una excepción. De hecho, generó un alto nivel de expectativas, que no se cumplieron en el corto plazo. La posible razón incluye un uso simplista y literal de las TICs en la enseñanza: no porque los alumnos dediquen mucho tiempo a las redes sociales virtuales esto significa que preferirán una plataforma educativa al laboratorio de toda la vida. Ni que las habilidades digitales que desarrollaron las usarán con fines de aprendizaje. Tampoco es realista pensar que pasar los apuntes del profesor a una pantalla, generarán mayor interés en los estudiantes. Por ello es crucial saber los factores que permitan una mayor motivación y un mayor aprendizaje, las herramientas digitales más efectivas, las formas de su instrumentación, los modelos de aprendizaje y los ámbitos de actuación de las nuevas tecnologías.

Precisamente este tercer volumen de “Educação e Ensino na Era da Informação” intenta dar otro paso hacia las respuestas a estas interrogantes, descifrar como la educación debe enfrentar estos desafíos, y descubrir las mejores formas de aprovechar las numerosas oportunidades que se nos presentan. Las propuestas nos llegan de diversos laboratorios alrededor del mundo, con distintas ópticas que exploran las dimensiones multifacéticas de la enseñanza y el aprendizaje, que intentan reflejar la diversidad de perspectivas sobre cómo la educación puede adaptarse y prosperar en un mundo que cambia rápidamente.

Este volumen integra 15 capítulos en 3 rubros. En el primer apartado se presentan las Tendencias en la Educación por objeto de estudio, con un capítulo sobre las distintas carreras y las estrategias de aprendizaje, seguido de trabajos sobre Odontología; Arquitectura; Ingeniería y Administración. En la segunda sección, La instrumentación de la tecnología y su impacto en el aprendizaje, tenemos investigaciones que prueban las bondades del uso educativo de YouTube; Facebook y WhatsApp; Inteligencia Artificial; la plataforma Moodle; y otras estrategias didácticas como intercambios virtuales y storytelling digital. La última sección, Gestión del Conocimiento, modelos educativos y ámbitos de desarrollo e intercambios sociales, presenta estudios sobre Gestión del conocimiento; modelo educativo basado en competencias profesionales; Metamodelos; Desarrollo Sustentable; y sobre Intercambios sociales indeseables.

En conjunto, el libro incluye investigaciones pero también experiencias y reflexiones sobre prácticas pedagógicas efectivas. A través de temáticas que van desde la neuro tecnología hasta el uso de plataformas digitales, desde la educación sustentable hasta la formación de habilidades interpersonales, este volumen pretende ser un recurso valioso para educadores, administradores e investigadores. Agradecemos a todos los colaboradores que hicieron posible este trabajo y te invitamos a ti, lector, a profundizar en las páginas que siguen.

Dr. Luis Fernando González Beltrán  
UNAM, México

## SUMÁRIO

### TENDENCIAS EN LA EDUCACIÓN POR OBJETO DE ESTUDIO

#### **CAPÍTULO 1.....1**

ESTRATEGIAS DE APRENDIZAJE EN LA ERA POSTPANDEMIA: INFLUENCIA DEL GÉNERO, ESTADO CIVIL Y CARRERA PROFESIONAL

Maria Guadalupe Martínez Treviño

Luisa Porfiria Chávez Barrera

Yolanda Velázquez Narváez

Lucía Ruiz Ramos

 [https://doi.org/10.37572/EdArt\\_2910243211](https://doi.org/10.37572/EdArt_2910243211)

#### **CAPÍTULO 2.....6**

¿POR QUÉ ES IMPORTANTE QUE LOS EGRESADOS EN ODONTOLOGÍA CURSEN UN POSGRADO?

Christian Starlight Franco-Trejo

Ana Karen González-Álvarez

Luz Patricia Falcon-Reyes

Nubia Maricela Chávez-Lamas

Juan Carlos Medrano-Rodríguez

Jesús Rivas-Gutiérrez

 [https://doi.org/10.37572/EdArt\\_2910243212](https://doi.org/10.37572/EdArt_2910243212)

#### **CAPÍTULO 3.....17**

FALERONE ART COLONY – ARCHITECTURE STUDENT DESIGN PROJECTS

István Frigyes Váli

 [https://doi.org/10.37572/EdArt\\_2910243213](https://doi.org/10.37572/EdArt_2910243213)

#### **CAPÍTULO 4.....37**

DESARROLLO DE COMPETENCIAS EN ALUMNOS DE INGENIERÍA INDUSTRIAL Y DE SISTEMAS TRABAJANDO EN UN RETO INTEGRAL PARA LOS TRES BLOQUES DE UN SEMESTRE SIGUIENDO LA RUTA DE LA CALIDAD CON UN SOLO SOCIO FORMADOR

Jesús Benjamín Rodríguez-García

María Yolanda Burgos-López

 [https://doi.org/10.37572/EdArt\\_2910243214](https://doi.org/10.37572/EdArt_2910243214)

**CAPÍTULO 5.....47**

PRÁTICA CURRICULAR NO CURSO DE ADMINISTRAÇÃO: PLANO DE ENSINO COMO INSTRUMENTO DE OPERACIONALIZAÇÃO

João Manuel de Sousa Will

 [https://doi.org/10.37572/EdArt\\_2910243215](https://doi.org/10.37572/EdArt_2910243215)

**LA INSTRUMENTACIÓN DE LA TECNOLOGÍA Y SU IMPACTO EN EL APRENDIZAJE**

**CAPÍTULO 6..... 59**

THE USE OF YOUTUBE IN FORMAL AND INFORMAL LEARNING CONTEXTS AMONG SLOVENIAN STUDENTS: DIFFERENCES BETWEEN TECHNOPHILES AND NON-TECHNOPHILES

Domen Malc

Nataša Gajšt

Dejan Romih

 [https://doi.org/10.37572/EdArt\\_2910243216](https://doi.org/10.37572/EdArt_2910243216)

**CAPÍTULO 7..... 80**

EL USO DE FACEBOOK Y WHATSAPP EN TIEMPOS DE PANDEMIA POR ESTUDIANTES DE EDUCACION SUPERIOR

Susana Romero González

 [https://doi.org/10.37572/EdArt\\_2910243217](https://doi.org/10.37572/EdArt_2910243217)

**CAPÍTULO 8.....92**

INVESTIGACIÓN DE LA DOCENCIA EN NEUROTECNOEDUCACIÓN INTEGRANDO INTELIGENCIA ARTIFICIAL

Joel Luis Jiménez Galán

Giuseppe Francisco Falcone Treviño

Zaida Leticia Tinajero Mallozzi

Manuel Valentín de la Cruz Narváez

 [https://doi.org/10.37572/EdArt\\_2910243218](https://doi.org/10.37572/EdArt_2910243218)

**CAPÍTULO 9..... 151**

LA PLATAFORMA MOODLE EN EL ANÁLISIS DE TEXTOS CON ÉNFASIS ESTADÍSTICO EN ESTUDIANTES DE PSICOLOGÍA

Luis Fernando González Beltrán

Olga Rivas García

 [https://doi.org/10.37572/EdArt\\_2910243219](https://doi.org/10.37572/EdArt_2910243219)



**CAPÍTULO 10.....159**

DIDACTIC STRATEGIES FOR DEVELOPING INTERSOCIAL COMPETENCES ALIGNED WITH SDGS IN EDUCATIONAL SETTINGS

Pablo Santaolalla-Rueda

 [https://doi.org/10.37572/EdArt\\_29102432110](https://doi.org/10.37572/EdArt_29102432110)

**GESTIÓN DEL CONOCIMIENTO, MODELOS EDUCATIVOS Y ÁMBITOS DE DESARROLLO E INTERCAMBIOS SOCIALES**

**CAPÍTULO 11.....179**

GESTIÓN DEL CONOCIMIENTO. ELEMENTOS PARA COMPRENDER SU SIGNIFICADO

Ma. Dolores García Perea

 [https://doi.org/10.37572/EdArt\\_29102432111](https://doi.org/10.37572/EdArt_29102432111)

**CAPÍTULO 12 .....192**

PERCEPCION SOBRE LA EVALUACION DEL APRENDIZAJE EN EL AREA DE CIENCIAS BASICAS DEL INSTITUTO TECNOLOGICO DE SAN JUAN DEL RIO

Juan Gabriel Rodríguez Ortiz

Jorge Alberto Callejas Ruiz

Ángel Alberto Chacón Mendoza

Rubén Espinoza Castro

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**CAPÍTULO 13.....203**

EDUCACIÓN EN LIDERAZGO PARA ESTUDIANTES UNIVERSITARIOS: PROPUESTA DE UN META-MODELO

Jorge López González

Salvador Ortiz Montellano

 [https://doi.org/10.37572/EdArt\\_29102432113](https://doi.org/10.37572/EdArt_29102432113)

**CAPÍTULO 14.....222**

HACIA UNA EDUCACIÓN PARA EL DESARROLLO SOSTENIBLE: DESDE LA FORMACIÓN INTEGRAL, ARMÓNICA Y DE BIEN-ESTAR HUMANO

Mireya Martí Reyes

Cirila Cervera Delgado

 [https://doi.org/10.37572/EdArt\\_29102432114](https://doi.org/10.37572/EdArt_29102432114)

**CAPÍTULO 15 .....231**

**FACTORES PREDISPONENTES EN EL COMPORTAMIENTO AGRESIVO EN NIÑOS ENTRE 8 A 10 AÑOS DE UNA INSTITUCIÓN EDUCATIVA DE VALLEDUPAR**

Consuelo González Venera

Yaneth Pérez Pabón

Tulia Leonor López Valera

Rikilda Isabel Rincón Jiménez

Rosa Blanca Martínez Molina

Katerin Torres Hostia

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**SOBRE O ORGANIZADOR..... 242**

**ÍNDICE REMISSIVO .....243**

## CAPÍTULO 3

### FALERONE ART COLONY – ARCHITECTURE STUDENT DESIGN PROJECTS

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**ABSTRACT:** The Falerone Art Colony was originally launched in 2006 as a summer school for the visual arts in Falerone, Italy. The majority of the participants in the summer drawing camps have been students of architecture at the Budapest University of Technology and Economics. In the summer drawing camps, students create artworks, drawings and paintings. The time spent in Falerone has inspired many to plan their university design projects in Falerone. In each case, the chosen theme for the projects addresses the problems

of the local community. The revitalisation of the depopulated historic town centre, the preservation and even the growth of its population, became a necessity in the 2010s. The projects were primarily designed to address this. In addition to providing modern housing, we have integrated small businesses, cultural, entertainment and retail functions typical of the area. The town of Falerone was severely effected by the 2016 earthquake. Depopulation has taken a fatal turn. In the aftermath of the earthquake, the Artists' Colony also launched targeted architectural workshops. The students measured damaged buildings and then added new features as part of the university's design exercises. We have extended our operations outside of the town centre to the rural areas of Falerone. The sustainable future of damaged but salvageable farm buildings was addressed in workshops and university design courses.

**KEYWORDS:** Falerone Art Colony. Architect training. Architecture workshop. Earthquake. Revitalisation.

**COLÔNIA ARTÍSTICA FALERONE – PROJÉTOS DE DESIGN DE ESTUDANTES DE ARQUITETURA**

**RESUMO:** A Colônia Artística Falerone foi lançada originalmente em 2006 como uma escola de verão para as artes visuais em

Falerone, Itália. A maioria dos participantes dos acampamentos de desenho de verão tem sido estudantes de arquitetura da Universidade de Tecnologia e Economia de Budapeste. Nos acampamentos de desenho de verão, os alunos criam obras de arte, desenhos e pinturas. O tempo passado em Falerone inspirou muitos a planejarem seus projetos de design universitário em Falerone. Em cada caso, o tema escolhido para os projetos aborda os problemas da comunidade local. A revitalização do centro histórico despovoado da cidade, a preservação e até mesmo o crescimento de sua população tornaram-se uma necessidade na década de 2010. Os projetos foram principalmente concebidos para abordar isso. Além de oferecer moradias modernas, integramos pequenos negócios, funções culturais, de entretenimento e de varejo típicas da região. A cidade de Falerone foi severamente afetada pelo terremoto de 2016. A despopulação tomou um rumo fatal. Após o terremoto, a Colônia de Artistas também lançou oficinas de arquitetura direcionadas. Os alunos mediram os edifícios danificados e, em seguida, adicionaram novas características como parte dos exercícios de design da universidade. Expandimos nossas operações para além do centro da cidade, alcançando as áreas rurais de Falerone. O futuro sustentável de edifícios agrícolas danificados, mas recuperáveis, foi abordado em oficinas e cursos de design universitário.

**PALAVRAS-CHAVE:** Colônia Artística Falerone. Formação de arquitetos. Oficina de arquitetura. Terremoto. Revitalização.

## 1 INTRODUCTION

The Falerone Art Colony is an artists' colony in Falerone, Italy. I founded it with the intention of managing the talents of architecture students at the Budapest University of Technology and Economics in the field of fine arts. Later, students of applied arts and fine arts were among the participants. My goal is to involve students from other art courses in the artists' colony, such as drama, music and art history students. In addition to the visual arts, architecture has also been included in the programme of the Artists' Colony. Architectural workshops allowed students to study the architecture of the area and prepare their academic design assignments.

Figure 1. Students of architecture in Falerone, Váli, I., (2019)



## 2 BUDAPEST UNIVERSITY OF TECHNOLOGY – FACULTY OF ARCHITECTURE

The Budapest University of Technology and Economics (BME) is the most traditional institution of technical education in Hungary. The Faculty of Architecture was founded in 1873. It also offers a very strong arts education, unlike the other 7 faculties at the university. It teaches its students about the same emphasis on technical and artistic skills. There are actually two courses behind a degree: architecture and engineering. Students graduating here can find employment in different fields, such as architects, civil structural engineers, construction engineers or even urban planners.

In keeping with the dual, architectural-engineering nature of the architectural training, the faculty's eleven departments include, in simple terms, design, engineering and other subjects essential to architecture. The Department of Graphics, Form and Design teaches artistic and co-artistic skills in addition to traditional and modern visualisation techniques, and also offers courses in design subjects for the upper grades (Department Design, Comprehensive Design, Diploma Design Project). Since its foundation in 2006, the Artists' Colony has been strongly connected to the BME's architectural education through the department.

Figure 2. Students of architecture in Falerone, Váli, I., (2018)



### 3 DEPARTMENT OF GRAPHICS FORM AND DESIGN

One of the eleven departments of the faculty is the Department of Graphics, Form and Design. In addition to teaching freehand drawing, the department also offers courses in graphic design, composition, modelling, colour theory, spatial art and interior design. The department also teaches architectural design subjects, including diploma design. The structure of the departmental foundation course is roughly as follows: it proceeds from a proportional representation of reality to the representation of an imaginary spatial world (Dobó, Molnár, Peity, Répás, 1999). The goal of the courses is to teach the use of visual tools for the architect's professional practice, i.e. for design, presentations, offline and online presentations (Nemes, 2008). The purpose is always architectural, even if the end result is often artistic. Because of the profile of the department, the teachers included not only architects but also painters, sculptors, craftsmen, and one of our architect colleagues was also a tenor at the Hungarian State Opera. Today, the teaching staff are exclusively architects and painters, but we also have interior designers and art historians who, although not directly involved in teaching, are currently contributing to the department's tasks.

Figure 3. The exhibition of Falerone Art Colony in the department's exhibition hall, (2012)



## 4 FALERONE – MARCHE REGION – ARCHITECTURAL ENVIRONMENT

The Falerone Art Colony is located in Falerone, a town of 3300 inhabitants in the Marche region of central Italy. Marche is little known even to Italians. Because of its unknown nature, the man-made environment, the settlements, the agricultural land structure and the cultural landscape have remained almost untouched. With the exception of the coastal strip and some of the more famous towns (Ancona, Loreto, Urbino), it is not a tourist destination. The Marche region is bordered by the Adriatic Sea to the East and the two thousand metre high peaks of the Appennines to the West. Between the two borders of the area, a hilly landscape, enriched by a multitude of towns and farms, defines the landscape. The soft curves of the hills and the towered silhouettes of the towns on them are strikingly beautiful.

With the exception of the mountains, building stone is difficult to access in the area. Therefore, the main material of construction is brick. This building material, which has been used continuously since Roman times, defines the appearance of towns and villages, as the facades are not plastered. Not only the facades of the houses, but also the helmets of the church steeples are covered with brick, no other material covers them. The exposed brick paving gives the settlements a uniform colour and character. In addition to the urban scale harmony, the beauty of the building material can also be seen in the details. Even the most complex architectural shapes could be created with specially manufactured moulded bricks for the facade sections. Approaching historical architectural forms in this way is an incredible experience for the knowledgeable observer.

## 5 DEPOPULATION

Despite the beauty of the surrounding countryside and settlements, this area has also been affected by depopulation. To understand this, let's first look at what kind of settlements are typical in the area. The larger settlements are located on the coastal strip. In the interior, apart from one or two medium-sized towns, there are smaller settlements of only a few hundred to a few thousand inhabitants. But in many cases, these settlements have also become even more fragmented. There are some parts of the settlement (frazione), which consist of a few houses, sometimes quite far away. Lonely clusters of buildings on the extensive farmstead are scattered across the agricultural fields.



There are several reasons for depopulation. Agriculture and small-scale industry in the area do not require as many workers as they used to. Jobs, shopping and entertainment are more accessible in larger cities. Many people have therefore moved from the interior to the coast, to the more remote cities.

In addition to relocation, internal displacement is also common. Old buildings cannot always provide the level of comfort expected today. Transport is also difficult in hilltop towns. More distant jobs or shopping facilities are also more accessible from the settlements along the river valleys. Historic town centres offer beautiful views of the surrounding countryside, but there is limited easily accessible community or even private green space. Thus, in addition to out-migration, the shift in the centre of gravity of housing has resulted in the depopulation of historic town centres and farmland. Residents who moved but stayed put moved to the river valley, the main transport route. The depopulation process is a vicious circle. If the population in an area decreases, the quantity and quality of services will also decrease. This in turn will lead to further population decline, resulting in the closure of the remaining shops and services. In addition to these practical issues, there is also the human factor. Humans are social beings. No one wants to live in a deserted settlement. „Studies from all over the world illuminate the importance of life and activity an urban attraction. People gather where things are happening and spontaneously seek the presence of other people.” (Gehl, 2010)

Falerone has also lost 40% of its population in the last hundred years. Many of those who lived on farms in the historic town centre moved to the river valley, the site of the Roman city of Falerio Picenus. This has led to the closure of shops and the bar, the centre of social life in the old town. Until about 40 years ago, the main street, Corso Garibaldi, was the social scene of the area. This function ceased with the closure of the “Cineteatro”, the cinema-theatre. Jobs were lost as shops and small businesses had closed down. The Cineteatro, which offered cultural programmes, has closed, and the bar has ceased to be an attractive place to socialise. Today, only the mayor’s office remains as a function that attracts a serious human presence. The other major institution, the upper primary school, has also moved to the river valley because its building was badly damaged in the 2016 earthquake.

Figure 4. Architecture students are having dinner in the empty street, Váli, I., (2019)



## 6 EARTHQUAKE

In addition to the depopulation caused by social and economic changes, the 2016 earthquake has led to further depopulation. The old town of Falerone was then virtually empty. Residential and public buildings were damaged to the extent that their continued use was no longer possible. The earthquake also affected buildings on farms. Most of the old buildings have been damaged, and the houses, the church and the school have become unsafe. State-coordinated reconstruction is proceeding slowly. In the six years since the earthquake, there has been little reconstruction. This period is just long enough to ensure that even those who were only thinking of moving temporarily do not return. This is how the fate of a neighbourhood is sealed. But it's also an occupation in an area, because once you stop keeping animals on a farm and the garden is not looked after, in today's world it's hard to start again, it's hard to move back. This is how Sandro Polci formulates the three main possible scenarios for responsible behaviour after an earthquake:

- “if it has become so dilapidated, abandoning the city centre and restoring some of its major monuments

- restoration of reasonably extensive parts of the municipality, including the possible relocation of displaced populations to the restored areas, or to neighbouring areas or even nearby municipalities not effected by the earthquake
- the restoration of the entire settlement, if it does not require too many compromises, using forward-looking, sustainable technologies” (Polci, 2017)

We believe that the right way forward is to restore as fully as possible. Both for the community and for the built environment, which contains the community’s memories and values. As well as the completeness of the recovery, speed is a critical factor. Over time, irreversible harmful processes are set in motion. We also formulated the task descriptions for the design proposals prepared by the students to be as comprehensive as possible. At the same time, they should be as feasible as possible and use forward-looking solutions while preserving the values of the past. The right concept, designs that appeal to young people, speed can even improve the situation better than restoring it to its original state.

Figure 5. Reinforced buildings in Falerone after the earthquake, Váli, I., (2017)



## 7 ARCHITECTURAL TASKS 2013

Publication of the Falerone themes in design subjects started already in 2013. Most of the participants of the summer drawing camp started their comprehensive design subject in the department. So, several students who knew the place, who were close-knit and could work together, designed a building or a building conversion for the old town of Falerone. The idea was to revitalise the town centre. We envisaged reintroducing a range of functions on the site: housing, work, shopping, entertainment, culture, religious life and administration. „Integrate various functions in cities to ensure versatility, wealth of experience, social sustainability and feeling of security in individual city districts.” (Gehl, J., 2010) The conceptual question was to identify what interventions could be made in this particular part of the area and thus how we could bring life back to the city. „If city life is reinforced, it creates the preconditions for strengthening all forms of social activity in city space.” (Gehl, J., 2010)

In 2013 the plans were made for a wide range of functions:

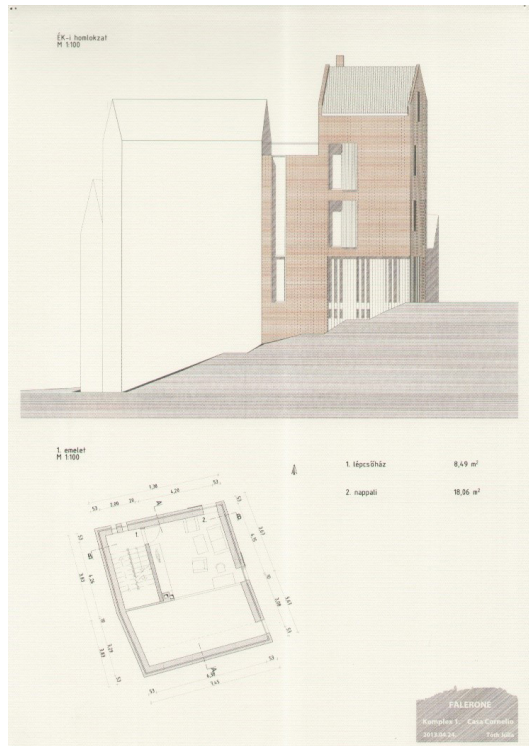
- Residential buildings that provide modern living space but are in keeping with local traditional architecture.
- Small straw-hat design studio and factory.
- Reconstructing the interior of a demolished 19<sup>th</sup>-century theatre, also in a contemporary style.
- Community space in the former covered market (“ex mercato coperto”).
- Public space redevelopment on the street bordering the town centre from the north, now mainly used for parking.
- Rethinking the town hall building as its appearance is out of keeping with its surroundings (an imaginary plan, but intended to remedy an urban design flaw).
- etc.

These plans addressed all the shortcomings of the historic city centre. Housing, jobs, shopping, and entertainment are all mutually reinforcing functions. These functions are essential for maintaining and reviving the population and life. Only by fully serving the needs of human existence can a place be made liveable and attractive to those already living there or considering moving there.

Figure 6. Comprehensive Design, Szlamericzky, Z., consultant: Sebestyény, F., (2013)



Figure 7. Comprehensive Design, Tóth, J., consultant: Pálóczi, T., (2013)



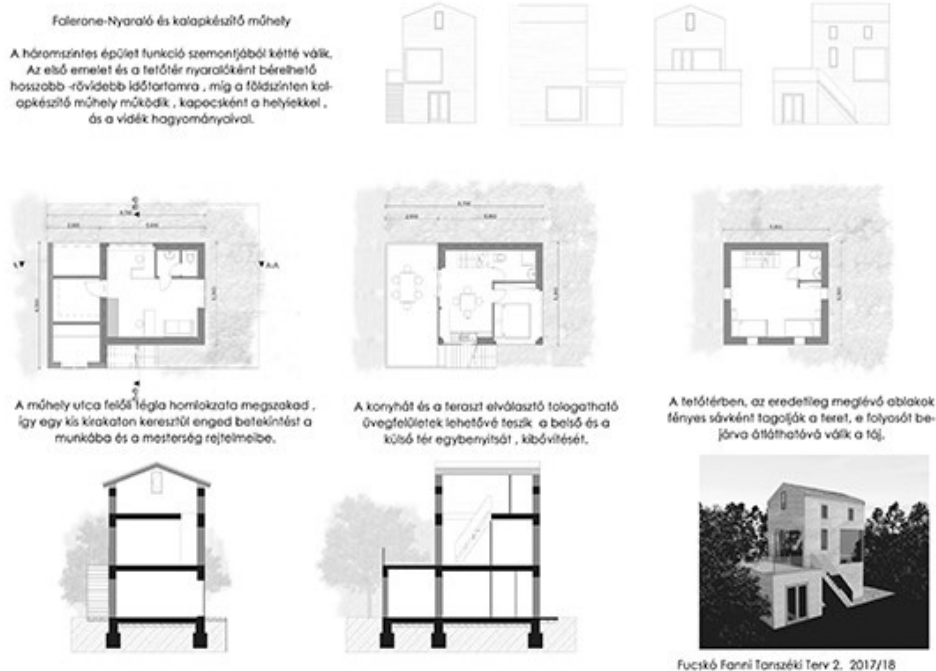
## 8 ARCHITECTURAL TASKS 2017

In 2017, after the earthquake, construction work resumed with renewed vigour both on the ground and within the university walls. Our goal was to help recovery, to help a fresh start. We were able to do this through building surveys and architectural ideas.

A survey camp was held to learn about the damage caused by the earthquake and to prepare survey drawings of damaged buildings. These surveys were intended to support the city's efforts, but were also linked to our comprehensive design theme for the year.

Another subject, "Department Design", focused on the reuse of damaged farm buildings.

Figure 8. Department Design, Fucskó, F., consultant: Váli, I., (2017)



The earthquake of 2016 brought a major, and sadly negative, change to the life of the city centre. The building of the upper primary school (Scuola media Don Bosco) was severely damaged. The city council decided to build a new school combining the lower and upper classes, leaving the Franciscan convent building (Ex convento francescano)

without a function. This convent building, together with the church of San Fortunato, is a defining feature of the old town. In addition to the school, it also housed the archaeological museum. The daily presence of students brought life to the old town for short periods, but on a daily basis. It is essential to give the buildings a new lease of life, otherwise they will start to decay and their surroundings will be degraded. There seemed no chance of it regaining its original purpose and becoming a monastery again. However, it was obvious that the artists' colony could be used in the future. To function as an artists' colony, accommodation and community spaces are needed. This is in fact identical to the layout of monasteries. This idea actually goes beyond the current need for the art colony, but it could be a realistic use for the building if future visions are realised. Of course, the students' plans have not been realised, but the city is rebuilding the damaged building as a college for a university summer courses. In fact, these summer courses could be the art colony itself.

Figure 9. Comprehensive Design, László, D., consultant: Váli, I., (2017)



## 9 ARCHITECTURAL TASKS 2018

Another workshop and a lesson on “Department Design” involved students drawing up plans for a building in the town centre that has been empty for decades.

Figure 10. Department Design, Szladek, K. A., consultant: Váli, I., (2018)



## 10 DIPLOMA DESIGN PROJECTS

So far, three diploma projects have been prepared for the Falerone site. Both of them envisioned a new building for the artists' colony. Two plans were located in the town centre, the third one in the rural Falerone, on the outskirts of the municipality.

Kornél Koczkás won the “Pro progression” award for his diploma project in 2012. The plan sought a location for the permanent building of the artist colony on the outskirts of the city centre. The choice of location was unfortunate, as it designated the site of a building that must be preserved as a potential construction site. Nevertheless, the concept articulated a quality, contemporary building that, with its facade material usage and design, fit excellently into the brick architecture of the town's landscape.



Figure 11. Diploma Design Project, Koczkás, K., consultant: Répás, F. (2012)



A plan from 2018 was made for a rural location, about a 15-minute walk from the old town. This completely new building fits into the series of agricultural centres scattered across the landscape, both in its placement and its mass. It would be an exciting opportunity if the artists' colony could simultaneously use a building located in the countryside and one in the city centre. With the duality of urban and rural life, the programs and experiences of summer art camps could be even richer. Such a building, even if it is not in the city centre, would not weaken our goal of revitalizing the endangered old town.

Figure 12. Diploma Design Project, Budai, G., consultant: Váli, I., (2018)



In 2023, a BSc degree was prepared for the Falerone site. The theme of the project was a creative house with accommodation. In fact, it was a small art centre. The building opposite the town hall had been abandoned for years. It had previously been the Catalini family bar, a community space. Its location is ideal, with its shop fronts overlooking the main street, Corso Garibaldi, making it part of the city life. The plan retained the architecturally valuable facades facing the city, but proposed a new structure at the back for creative, exhibition and accommodation functions to serve today's needs. Even the original building mass would not be fully restored as planned. A garden could be created here, adjacent to the neighbour's courtyard, relieving the excessive density of the urban fabric. The courtyard provides an opportunity to create green space and the possibility for people to enjoy the outdoors in a pleasant, sheltered, yet urban location.

Figure 13. Diploma Design Project, Czirkó, V., consultant: Váli, I. (2023)



## 11 TECHNOLOGY

These student architectural plans have always been created with the most advanced technology. The drawings are naturally created using CAD software, while the visual plans and facade graphics are made with visualization and pixel graphic programs. The use of artificial intelligence in architectural visualization has only started to emerge in the past year or two. AI-generated images and enhanced visual designs are not yet included in these diploma projects. In contrast, handmade drawings do exist, and this is what gives the artist colony its essence. To preserve and utilize what can still be salvaged from traditional techniques alongside modern tools (computer-aided design, cloud-based services, artificial intelligence). This is the duality of our age. We have with us the operational model of the past centuries, but our world is changing explosively these days. The goal is to use every tool in the most beneficial way solely for humanity and humankind. This is a challenge for both those involved in education and practicing professionals.

Figure 14. The exploded view of the artist colony's headquarters, Váli, I. (2012)



## 12 CONCLUSIONS

The original intention of the artists' colony was to provide art education for the participating students. But this is only the surface. The true mission of the Artists' Colony is to turn the students participating in the Artists' Colony into architects and artists who see the beauty and traditions of their environment, who can interpret and contextualise them, and who are willing and able to do something for the community and community values.

The students are enthusiastic about participating in the art colony. They can experience first-hand the problems and opportunities of a community they have never known before. Although we will be part of the life of the town during our two weeks there, we will see the situation and the problems from a different perspective. The architect's responsibility is complex. The architect has to design good, usable, beautiful houses, but also has a responsibility to design buildings that serve people, the community and the natural environment. "The emotions and perceptions of living and breathing people cannot be confined within a framework, they are strongly influenced by the built environment in which they live. This interaction gives rise to the real responsibility of architects, which is difficult to account for. It cannot be quantified, it has no metrics, yet it is an essential element of architecture. The basis of the dynamic relationship between architects and society is empathy" (Balogh, 2019). Architects must serve human needs alongside practical concerns. You must put your knowledge and creativity to work for the public good. The architect should be a proposer, understand the complexity of space, social movements and problems. Based on the realities experienced through the artists' colony, the tasks issued within the framework of university education aim at mastering this way of thinking and attitude.

Figure 15. Falerone – Corso Garibaldi, Koczkás, K., (2012)



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## ÍNDICE REMISSIVO

### A

Acoso escolar 231, 232, 233, 237, 240

Adaptación post-pandémica 1

Agresión 232, 233, 237, 238, 239, 240

aprendizagem 47, 49, 50, 51, 52, 54, 55, 56, 57, 58, 59

Aprendizaje 1, 2, 3, 4, 5, 37, 38, 39, 45, 60, 80, 81, 82, 84, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 113, 114, 115, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 128, 129, 130, 131, 133, 134, 135, 136, 137, 138, 139, 146, 147, 148, 149, 152, 156, 157, 158, 179, 182, 183, 184, 187, 188, 189, 190, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 207, 217, 225, 227, 228, 232, 237

Aprendizaje basado en retos 37, 38, 39

Aprendizaje personalizado 93, 110, 129

Architect training 17

Architecture workshop 17

### C

Características y actitudes para utilizarla 179

Competencias 6, 7, 13, 15, 37, 38, 39, 40, 44, 49, 51, 53, 92, 93, 94, 95, 97, 99, 100, 102, 103, 106, 108, 110, 122, 125, 127, 130, 131, 133, 134, 136, 137, 146, 147, 148, 151, 158, 183, 190, 192, 193, 194, 200, 201, 203, 205, 208, 209, 216, 217, 218, 219, 222, 225, 228, 229

Competencias complejas 222, 225, 229

Competencias de ingeniería 37

Competencias profesionales 7, 192, 193, 197, 200, 201

Comunicación docente-alumno 80

COVID-19 1, 2, 80, 81, 82, 90, 91

Crisis sanitaria 80

### D

Desarrollo sostenible 121, 122, 123, 222, 223, 224, 225, 226, 227, 228, 229, 230

Desempleo 6, 7, 9, 12, 13

### E

Earthquake 17, 23, 24, 25, 28

Educación 1, 2, 3, 5, 7, 8, 9, 10, 11, 12, 14, 15, 16, 46, 80, 81, 82, 84, 86, 89, 90, 91, 92, 93, 94,



95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 107, 108, 109, 110, 111, 112, 114, 116, 117, 118, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 147, 148, 149, 150, 157, 158, 177, 178, 179, 191, 193, 194, 195, 196, 198, 200, 201, 202, 203, 204, 205, 206, 216, 217, 218, 219, 221, 222, 224, 225, 226, 227, 228, 229, 230, 231, 234, 238, 239, 240

Educación en liderazgo 203, 204, 205, 216, 217, 221

Educación superior 1, 10, 46, 80, 81, 89, 90, 96, 98, 102, 103, 109, 121, 124, 125, 127, 129, 135, 136, 150, 158, 201, 203, 222, 226, 227, 229, 230

Estadística 45, 151, 153, 154, 155, 157, 158

Estrategias de aprendizaje 1, 2, 3, 4, 5, 94

Estudiante universitario 80, 204, 213, 218

Evaluación 39, 44, 92, 94, 97, 98, 102, 103, 104, 105, 106, 111, 126, 130, 133, 135, 136, 138, 140, 141, 142, 143, 144, 146, 147, 148, 152, 153, 155, 192, 193, 194, 195, 196, 197, 198, 200, 201, 203, 205, 206, 213, 214, 218, 219

Expresiones 179, 180, 187, 188, 238

## F

Falerone Art Colony 17, 18, 21, 22

Formación integral 222, 225, 228, 229, 239

## G

Gestão de sala de aula 47

Gestión del conocimiento 179, 180, 188, 191

## I

Inclusive education 159

Innovación pedagógica 93, 97, 98, 122, 123, 138

Instrumento de operacionalização 47

Inteligencia Artificial 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 112, 113, 114, 115, 116, 117, 119, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 144, 146, 147, 148, 149, 150

Intersocial competences 159, 160, 161, 162, 163, 164, 165, 167, 168, 170, 172, 173, 174, 175, 176, 177

## L

Learning 38, 47, 48, 59, 60, 61, 62, 63, 64, 65, 70, 72, 76, 77, 78, 79, 80, 93, 95, 104, 159,

160, 161, 162, 163, 164, 165, 167, 168, 171, 174, 176, 177, 179, 184, 190, 193, 207, 219, 220, 230  
Learning platform 59  
Lectura 89, 151, 152, 153, 154, 155, 156, 157, 158  
Liderazgo 14, 128, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217,  
218, 219, 220, 221

## M

Maltrato a los niños 232  
Modelo educativo 37, 192, 193, 197, 198, 200, 201, 219, 222, 229

## N

Neuroeducación 93, 95, 100, 107, 110, 114, 116, 117, 126, 129, 138, 140, 143, 145, 147  
Nociones 179, 180, 187, 188, 189  
Non-native speakers of English 59

## P

Percepciones 110, 112, 118, 119, 120, 124, 125, 150, 192, 193, 194, 195, 196, 201  
Planejamento de ensino 47, 50  
Plataforma 43, 59, 60, 84, 85, 88, 115, 118, 151, 153, 154, 156, 182, 230  
Posgrado 6, 7, 8, 9, 13, 15, 16, 179, 240  
Práctica curricular 47, 48, 49, 50, 54, 56, 57  
Psicología 1, 5, 81, 87, 90, 107, 147, 151, 152, 153, 156, 158, 203, 241

## R

Realidad virtual y aumentada 93  
Redes sociales 80, 81, 82, 83, 84, 85, 86, 89, 90, 91  
Revitalisation 17  
Ruta de la calidad 37, 40, 45

## S

Slovenia 59, 60  
Social justice 159, 160, 162, 163, 165, 169, 171, 174, 177, 178  
Subempleo 6, 7, 9, 13  
Sustainable Development Goals (SDGs) 159

## T

Tecnología educativa 92, 93, 94, 95, 96, 100, 101, 102, 104, 105, 110, 114, 116, 123, 150

## U

Universitarios 1, 5, 80, 83, 85, 90, 91, 149, 151, 152, 157, 158, 194, 203, 204, 205, 206, 216, 218, 221, 222

## V

Virtual collaboration 159, 177

Virtudes 186, 203, 209, 215, 216, 217, 218, 219

## Y

YouTube 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 84