Abstract
The starting point of our urbanism courses in the master's degree programme is to take a broad, comprehensive local and global look at the urban reality of our environment from a comparative and historical perspective. The aim is to apply a learning-by-doing approach. The paper is structured in two parts. The first explores theory- and design-based approaches considered by architects and urban designers to improve the urbanity of our cities and neighbourhoods. The second presents the experience of five academic years of Integrated Urban and Landscape Design, a subject in the framework of the Master's Degree Programme in Architecture taught at the School of Engineering and Architecture of the University of Zaragoza. It addresses urban regeneration interventions in vulnerable areas of the consolidated city with innovative approaches. The aim is to explore innovation in the academic field considering user participation. The workshop methodology is explained in detail, with more attention paid to the process followed than to the specific results of the workshop. The paper explains the four stages of the process: preliminary phase and selection of the study area; analysis and diagnosis phase; proposal phase, in which work is performed jointly with a vision of action in the entire neighbourhood; and presentation phase of the results to residents. Finally, some future challenges of this workshop are outlined.

Keywords – Teaching, Research, Theory, Practice, Active methodologies, Urban workshop, Vulnerability, City stakeholders, Citizen participation, Teamwork.

1. Theory- and Design-Based Explorations of Integrated Urban Regeneration
“...A planner with a one-sided sense of history is almost as dangerous as one with none at all” (Hebbert & Sonne, 2006: page 4).

The relationship between urban theories and intervention practices in the city is one of the most difficult challenges that advanced courses taught in schools of architecture must address. The complexity of ongoing urban processes cannot easily be solved by approaches that are exclusively design-based or by conventional urban planning. Although an interdisciplinary approach to urban problems cannot be expected in the academic framework found in schools, it is possible to explore theory and design in an integrating manner.

Based on this perspective, in the autumn semesters of the 2013-14, 2014-15, 2015-16, 2016-17 and 2017-18 academic years, the Master's Degree Programme in Architecture of the University of Zaragoza included a general overview of urban regeneration in historic centres, in mass housing estates and in some neighbourhoods established from the 1950s onwards. This scrutiny has enabled us to hold specific discussions on “inner suburbs” in differing situations of urban vulnerability.
Our starting point is an overall, cross-sectional academic view, although based on specific cases. With this approach, we have tried to address complex situations with the research and experimental dimension that the advanced level of master's degree studies requires. Our intention is to obtain results that, firstly, benefit the training of our students and, secondly, help to transfer knowledge of the discipline to the municipal administration. Consequently, the purpose of our overview is twofold: education and research. We train our students in highly complex real cases and also provide them with materials that inspire reflection, strategies and design proposals that can contribute to an urban debate that is as systematic and exhaustive as possible.

The University Master's Degree Programme in Architecture of the School of Engineering and Architecture of the University of Zaragoza began in September 2013, five academic years so far. The course's workload is 60 European credits (ECTS) and it qualifies students to practise the profession of architect in Spain. Our master's degree subjects are organised around urban regeneration workshops providing a broad and integrating insight into urban situations in our surroundings with a compared and historic perspective that is both local and global. Integrated Urban and Landscape Design, which focuses on the urban regeneration of vulnerable areas, is one of the four compulsory subjects taught in the first semester.

1.1. Integrated Urban Regeneration: From International Debates and Experiences to the Case of Zaragoza

At a time when there is an obvious need to focus on regeneration rather than on urban growth, paying attention to vulnerable areas has become a priority. They make up a considerable part of our cities, given that physical and functional obsolescence processes affect both historic centres and residential suburbs created during years of major urban growth from the 1950s to the 1970s.

When thinking about urban regeneration, we are used to emphasising the need for integrating visions. In recent years, this has meant giving increasingly more consideration to social, economic and environmental factors as well as physical and construction aspects. However, in contrast, the undeniable attention and priority given to the needs of the resident population in these urban areas and the work undertaken to refurbish homes and provide infrastructure usually push the role of urban design into the background. The challenge consists of exploring the possibilities that urban design affords to improve the habitability and urbanity of these neighbourhoods and residential estates in parallel to updating buildings to comply with new functional and construction standards. This means overhauling design strategies by considering “best practices” and recent—or not so recent—experiences in other cities. Therefore, the aim is to prioritise the objective of urban quality, which is only possible with targeted in-depth dialogue between planning, urban design and architecture. This is an integrating vision that is essential for creating attractive human spaces as a fundamental, yet non-exclusive, part of urban regeneration and requalification strategies.

Since the “integrated urban regeneration” concept is ambiguous, there is some risk of it being trivialised and used as theoretical support for actions that are not only vastly different, but even conflicting. Although the term is excessively generic, for a while this concept has managed to gain ground in international circles, leading to many studies and treatises that have been completed in quite a systematised manner (Roberts & Sykes, 2000).

It is only with a twofold perspective—international and retrospective—that we will be capable of understanding why our neighbourhoods, especially vulnerable areas, have gone astray and how we can establish a more complex and detailed diagnosis to address the problems, challenges and opportunities that are now presenting themselves in our cities. This approach has underscored our planning of the University Master's Degree in Architecture courses of the University of Zaragoza, in which our coordination of the programmes for several subjects has enabled us to integrate different approaches.
1.2. Improving Urbanity in Our Cities by Asking Authors

The aim of including a series of theoretical sessions in the eminently practical courses of a master's degree is to address some of the issues at the heart of current debates. The need to understand and specify what we mean by “urbanity”, despite its vague and imprecise definition, is obvious. Apparently, the difficulty in forming and shaping the notion of urbanity is largely due to the complex and diverse factors that determine the urban quality of places. Therefore, it is no surprise that most of the theories for the concept of urbanity stem from urban sociologists, geographers, philosophers, anthropologists, journalists and historians. The point is to reconsider our approach to the notion of urbanity and accept that it refers to a living process that also records changes to the contemporary city. Instead of limiting the concept to the image of the dense nineteenth-century city, thus confusing “experienced” urbanity with the “built” urbanity of the historic city, leading to a shift towards an anti-modern urbanism, as has often been the case, it is vital to analyse the legacy of modern urbanism impartially so we can better understand what has worked and what has not and which principles may still be relevant.

With this objective, and especially at a time like the present, when the urban cycle is changing, we have reviewed the thoughts of some authors that have produced in-depth research and theories on several urban intervention options to identify whether they are still relevant or relatively obsolete for the challenges faced by the contemporary city. By doing this, we can introduce a critical perspective unhampered by the constraints of trends and certain views that are closely linked to current circumstances. Beyond the theoretical poverty characterising actual urbanism, identified with the practice of planning and its legal dimension, we aim to reflect on current challenges and on the need to reinvent the plan.

With these underlying ideas, the strategy of these master's degree courses on urban regeneration has been to select a series of subjects and study them by using texts written by reference authors that must be considered if the aim is to put a cultured and updated urbanism into practice. This selection of authors and key texts, adapted to the duration and rhythm of the master's degree, ranges from classical authors –such as Lewis Mumford, Jane Jacobs, Kevin Lynch, Gordon Cullen, Christopher Alexander and Henri Lefebvre to other more recent authors– such as Peter Hall, Bernardo Secchi, Thomas Sieverts, François Ascher, Jan Gehl and Rem Koolhaas. By attentively reading these theoretical and professional texts that have reflected on urbanism, the city or the landscape in the past 50 years, we can better understand why some subjects recur yet feel new, especially when they are compared to other approaches with scant basis or that are excessively “journalistic”.

Figure 1. Asking the authors
Consequently, the proposed theoretical and methodological reflections occur in parallel to the “design exploration” of the processes, problems and potential of chosen study fields. The aim is to select some subjects and pretend to ask the selected authors questions using a series of texts on certain paradigms of recent urbanism, despite being aware of the specific situations in which they were written. What would each of them think if they were to walk through the inner suburbs we are working on? How would they analyse their problems and potential? Which lessons can we learn from their thoughts and how applicable are they in different time and space contexts?

Some of the courses of the University Master’s Degree in Architecture we refer to in this text insist on the importance of considering city culture in a broad sense that goes beyond the scope of urbanism and even that of related disciplines. In the optional subject *The City as Cultural Landscape*, the condition of the cultural landscape of the contemporary city is explored through literature or film, alternative methods to those usually offered by official academic pathways. These explorations help us understand and interpret the city in a far broader cultural dimension. In *On Exactitude in Science*, Borges intuitively understood the potential of mapping cities and territories for literature (Borges, 1998). As architects who love cities, we know only too well that there are many ways to interpret them, experience them, understand them and, consequently, to represent them as well. That is why subjective representations of the city and its neighbourhoods are made, “intimate maps” that aim to become research, analysis and creative exploration tools.

Figure 2. Intimate maps of San José, Zaragoza. (Students: N. Julian, A. Bes & S. Celorrio)
2. Teaching Innovation in Workshops: a Continuous Review of Structure and Processes

The second part of this article focuses attention on the work performed during these five academic years in the Integrated Urban and Landscape Design workshop, which plans regeneration interventions in vulnerable areas with innovative educational approaches in the academic and participatory fields. The purpose of the workshop is twofold: firstly, to complete the students’ training in the complex processes of a consolidated city; and secondly, so students can acquire professional skills in an educational setting where their practice, although still academic, is closer to the actual professional situation that these future graduates will face in the near future.

The main idea of the workshop is to work in a context with a strong social component. For this purpose, students work in a physically close location, a vulnerable neighbourhood or sector of the city of Zaragoza, but, above all, in places where we can find synergies with the stakeholders involved in urban governance. We are not only referring to the municipal administration, with which we have a collaboration agreement to hold this workshop, but also the social fabric represented in neighbourhood associations. This closeness enables us, firstly, to perform ongoing fieldwork that ensures the thoroughness of the results, based on the city's complexity. Secondly, it facilitates fluid dialogue with the stakeholders so that the work addresses actual problems identified by people with experience in these areas and serves as a tool in the dialogue between the administration and residents.

There is nothing new about this issue in our discipline, but it is true that known examples of participation have mainly focused on the design of new residential areas. Examples of participation focused on housing built in the 1960s and 1970s by architects such as Christopher Alexander, John Turner, Walter Seagal, Giancarlo di Carlo, Ralph Erskine and many others are well-known (Bambó-Naya, 2018). The role we play as architects and urbanists in contemporary cities and, especially, in vulnerable areas of consolidated cities should be reviewed. In the current context we should know how to identify local stakeholders involved in mobilising an organised civil society (Castells, 1989) and also know how to identify which interests each of the identified stakeholders represents. A suitable analysis of this situation is crucial in urban regeneration work, since the survival of almost all vulnerable neighbourhoods lies in the activation of urban life (Cal-Nicolás, 2017). The challenge now lies in how to transfer the participatory tradition to a larger scale than is usual in this type of experience.

The urban regeneration workshop promotes learning by doing (Dewey, 1938), the generalised basis of active methodology for the teaching of architectural and urban design in architecture; in this respect, we just have to review the teaching practices of the first two schools in the country virtually from their beginnings (Aguilera & Zaragoza, 1996; Antoni & Rodriguez, 1996). The innovation contributed by this teaching experience lies precisely in the development of a framework promoting reflection on the city in a workshop with the stakeholders involved in city governance in a context of qualifying training.

From the very start, the students work together in the workshop as a team with a common objective. This team has to deal with a real situation in a vulnerable neighbourhood in the city of Zaragoza with stakeholders that are not involved in academia and guide them through the process. The presence of these stakeholders forces the students to propose viable designs that mirror the professional situation they will soon find themselves in when they graduate. However, this does not mean that the work they do is “professional” in the strict sense of the term, in other words, subject to the straitjacket of conventional planning. The workshop is, therefore, an opportunity to rethink how to intervene in these neighbourhoods with a realistic, yet unconditioned approach.

Methodologically, the workshop has four main work phases: a previous organisational phase of the subject; an analysis and diagnosis phase; a proposal phase; and a dissemination phase. These four phases are described in detail below.
2.1. Previous Phase: Choosing the Neighbourhood and the Social Stakeholders

Before the workshop begins, the teaching team selects the areas of study based on three considerations. Firstly, the areas must demonstrate processes of degradation or vulnerability and, therefore, require urban regeneration ideas (Hernández-Aja, Matesanz-Parellada, García-Madruga, Alguacil-Gómez, Camacho-Gutiérrez & Fernández-Ramírez, 2015). Secondly, the area should have active and recognisable input from residents to facilitate dialogue among the stakeholders in the workshop. Lastly, the area should have previous integrated and/or sectoral urban or strategic documents to support the workshop. This is a starting point for the students so they can perform their own work and bring a new, yet also informed, approach to the neighbourhood's situation.

In these five academic years, the neighbourhoods chosen have enabled students to address a variety of problems. San Pablo, Balsas de Ebro Viejo, Oliver, San José Alto and Las Fuentes have helped students deal with diverse urban vulnerability conditions: degraded areas in the historic centre, housing estates that are becoming obsolete or neighbourhoods in inner suburbs. Similarly, the organisational structure of social stakeholders in every neighbourhood differs greatly: some have neighbourhood associations with a long participatory history and others have less organised and consolidated structures.

2.2. Analysis and Diagnosis Phase: Working in the Neighbourhood with the Social Dimension

The workshop is based on the hypothesis that a good analysis and diagnosis of the problem is crucial in the planning of strategies and solutions. The class works together as a single team subdivided into working groups of three or four students. There is also a team responsible for integrating all the documentation, which forms the framework or master plan.

All our workshops have been based on the same outline: combining the analysis work in the workshop with the students’ direct experience—with visits to the work area (Figure 3)—and the experience gained in meetings organised with the stakeholders. Each working group’s thought processes thus benefit from previous ideas already put forward by residents, managers and professionals involved in the neighbourhood’s urban regeneration. Combined with the urban documents on the area and selected theoretical texts, these insights help improve academic results.

Figure 3. Analysis work session in the neighbourhood. Oliver Neighbourhood, September 2015 (Photograph: P. de la Cal-Nicolás)
However, different contexts have necessitated changes in how the analysis is performed. Issues such as the type and complexity of the study area, or other academic issues, such as the number of students and ensuring the subject provides the correct number of credits, must be considered in planning the workshop (Fernández-March, 2006). Our experience of the five academic years shows that the possible forms of analysis (integrated-sectoral, global-partial) are not perfect. Nevertheless, once aware of all the advantages and drawbacks, selecting the most appropriate based on the particular academic context of the subject and the complexity and type of urban area studied seems the best way forward.

As mentioned above, the workshop sessions always take place in parallel to the theoretical sessions in which a well-thought-out selection of texts helps transfer the queries and considerations of urban culture on urban regeneration to the workplace. In every experience, the texts also seek a balance between general and particular considerations, which are useful for every specific experience (Monclús-Fraga, 2014, 2016; Monclús-Fraga & Díez-Medina, 2015).

2.3. Proposal Phase: Joint Work with an Overview of Action in the Entire Neighbourhood

After the operational analysis, the workshop becomes more forward-looking. The purpose is to work on two levels: globally, capable of understanding the urban regeneration process of a neighbourhood in relation to the rest of the city; and locally, capable of proposing specific regeneration and rehabilitation actions encompassed in a broader consideration.

Consequently, the class firsts creates a master plan agreed upon by all the working groups. Not only does the debate in the classroom trigger and encourage reflection on urban regeneration, it also allows us to observe the roles each working group takes on in the team. This observation almost naturally establishes which group will perform the role of the management team in the next work phase. This management team performs two tasks: firstly, collating and systematising the analyses to obtain the master-plan objectives and justify them; and, secondly, coordinating, hierarchising, timing and ensuring that each of the urban proposals meets these objectives, and that they all fit in with the overall proposal (Figures 4 and 5). In parallel, the other working groups establish a series of urban proposals coordinated by the management team so they can verify and specify the objectives agreed in the master plan from an urban design perspective (Figure 6).

![Figure 4. Master plan: timeline of interventions proposed for Balsas de Ebro Viejo (Students: P. del Castillo, s. Foncillas, A. Martín & A. Sánchez)](image-url)
Figure 5. Objectives in the Oliver Neighbourhood. Presentation of the master plan  
(Students: S. Gómez & I. Maqueda)

Figure 6. Work on the Jardín de la Memoria superblock (San José Alto)  
(Students: I. Fernández & M. Unceta)
2.4. Presentation Phase of Results to Residents

After the working groups complete the master plan and the urban proposals, they present the workshop academic results to the neighbours. Although several resident stakeholders and managers have supervised their work during the process, the students also have to show it to a larger audience. Consequently, public presentations and exhibitions in symbolic, identifiable locations are scheduled in the area to be worked on.

Public presentation allows the neighbours to learn about the workshop in a forum whose format encourages discussion (Figure 7). However, this experience is also interesting from an academic standpoint as it has two functions. Firstly, the experience aims to train students in generic instrumental abilities, such as the linguistic and social skills needed for any university degree (ICE – School of Education Studies – of the University of Zaragoza, 2008), but which require special sensitivity in this case as the results are presented to residents directly affected by the proposals made. Consequently, the approach to any transformations in the neighbourhood needs to be thorough. Secondly, the experience aims to encourage interest in the subject by receiving direct feedback on their work and gratitude from many of the people in the neighbourhood who discover that careful attention has been paid to their immediate problems in the workshop, which is not always the case with the municipal administration. Despite knowing that, unfortunately, the academic timetable has finished, the discussion arising during these meetings encourages students to be concerned about their design and some of them will consider how to implement improvements in their proposals.

Figure 7. The “Ideas for a Better Neighbourhood” exhibition in the Civic Centre of the Oliver neighbourhood, and moments before presenting the results of the fourth workshop in La Harinera (San José Alto).

(Photograph: P. Cuenca)
Figure 8. Methodological diagram
3. Results and Challenges

This teaching innovation experience has been satisfactory for several reasons:

As far as the students are concerned, they are highly satisfied with the results of the degree. However, coordination among subjects still needs to be improved so we can provide a more integrated overview resulting in an educational experience that can introduce students to the complexity of urban regeneration processes.

At an external level, recent assessment processes by university quality agencies have rated these urban regeneration experiences as one of the strengths of the degree. Furthermore, both the administration and residents have shown interest and gratitude in every one of the experiences so far. As Rafael Moneo says in the introduction to one of our recent publications, “making the interests of a school coincide with a response to the problems found in the city where it is located is always desirable, especially if it is a young school such as the School of Zaragoza. Making the presence of the school felt in the city is, therefore, a goal” (Díez-Medina & Monclús-Fraga, 2017: page 5). Interesting debates have indeed taken place in the city as a result of the relationship between stakeholders within the framework of this workshop, which means the presence of the school has been felt in the city as desired.

The experience we have presented here is based on recognising the difficulty and importance of relating urban theories and methodologies with design practice focused on urban regeneration.

Every one of the five master’s degree programmes taught so far has proved to be a valuable laboratory that has enabled us to learn from difficulties and approach the next academic year with more experience. Every year our aim has been twofold: to give students practice in highly complex real cases and, at the same time, explore a series of theoretical and methodological subjects that raise relevant issues for the culture of our time. Only with these two perspectives can students provide reflections, strategies and design proposals that can contribute to an urban debate that is as thorough and vast as possible.

Figure 9. Results of these five academic years published in the collection Regeneración urbana vol. I, II, III, IV (the fifth volume is being prepared) focused on the city of Zaragoza, specifically the San Pablo neighbourhood (2013-14), the Balsas de Río Ebro housing estate (2014-15), and the Oliver (2015-16) and San José neighbourhoods (2016-17). Zaragoza: PUZ
Declaration of Conflicting Interests
The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding
This work was supported by the Ministry of Economy and Competitiveness, call 2014 R&D&I of the State Programme of Research, Development and Innovation based on the challenges of society (reference BIA2014-60059-R). More info: http://pupc.unizar.es/urhesp/

References


