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***Invited paper**

Preface

This volume addresses five main subjects. The first theme concerns the question of historic urban landscape and the role of cultural heritage to be preserved in the frame of urban planning processes. In the first paper, with regard to the case of Pescara (Italy), Varagnoli, Cecamore and Ferri emphasize the need for innovative approaches to urban management through more attention to the values of context, and appropriate evaluation methods to take relevant decision-making elements for the quality of new interventions for rehabilitation and replacement of the existing buildings (*I have participated as co-author and member of the working group for recognition of the urban historical built heritage*). De Rosa and Nocca deepen the concept of "historic urban landscape" and underline the need for integrated approaches to the conservation of the values of cultural and natural resources, in the perspective of a sustainable urban development based mainly on the understanding and awareness of these values. The importance of safeguarding the cultural value of places is reaffirmed by Roscika who reports on opportunities for preventive approaches to preserve standards of safety and security of buildings, as essential requirement for the utilization of built cultural heritage, describing strategies of cultural heritage protection in the Czech Republic. In the second focus on the relationship between architecture and energy consumption, Cannaviello emphasizes the need for the energy efficiency strategies of historic buildings, underling that the valorization of built cultural heritage requires complex improvements in the building conditions for utilization. In the next article, Trombadore reports an interesting experience of European territorial cooperation aimed at the redevelopment of existing buildings, with particular reference to school buildings. In the next focus on urban regeneration and public space - subject of international debate in the Biennale held in Rome during the current month of May - the first article by Cirafici, Melchiorre, Muzzillo and Violano addresses the issue of redevelopment and reuse of temporary public spaces - places of identity, integration, communication and participation - highlighting the dual approach (cultural-ecological and socio-aesthetic) to urban regenerative development. In the second paper, De Martino, Esposito and Frettoloso deal with the reuse of a railway line, as opportunity to rethink the connections between urban open spaces: with particular reference to the case of Naples (Italy), they document a thesis project for the Circumvesuviana line to be converted in exhibition and market areas, parks with educational purposes, areas for outdoor activities, recreational and agricultural activities. In the next article Franchino addresses the issue of urban agriculture, seen as effective instrument of urban renewal, with significant environmental, economic and social perspectives. Finally Tzouvadakis, Kaltsounis, Topalidis, Stamos e Sotiropoulou discuss a pilot project for the reuse of an open-air mine in Greece, dealing with the economic evaluation of investment for solar park. Within the focus on urban mobility and transport, D'Incecco analyzes intermodal infrastructures with reference to some exemplary cases of European logistics platforms, looking into the cases of Italy, Denmark, Germany and Spain, in order to highlight the key success factors. In the next article, Zazzara and D'Amico offer an interesting contribution to the debate on the landscapes of modernity, addressing the issue of the transformation of a Greek railway line, to reuse for tourist cycle routes and linear park for renewable energy production.

The last section presents some notable cases of social housing in the European context. The authors Panarelli and Di Tonno relate the concepts of poverty and social exclusion in the view of contemporary housing needs and within the European orientations of social policy in the programming phase 2014-2020. The second and last article deals with some aspects of territorial welfare; the authors D'Atri and Scardigno highlight the importance of understanding the territorial values for local strategic programming and the need for shared public decisions through appropriate communication processes.

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Questo volume è articolato in cinque focus tematici. Il primo focus riguarda il ruolo del patrimonio culturale urbano come risorsa da salvaguardare e valorizzare nei processi di pianificazione e rigenerazione urbana. La questione della tutela della città tardo-ottocentesca è indagata nel primo articolo con riferimento al caso di Pescara: gli autori Varagnoli, Cecamore e Ferri sottolineano l'esigenza di approcci innovativi alla gestione urbana attraverso interventi di recupero maggiormente rispettosi dei valori di contesto, evidenziando altresì l'utilità di approcci valutativi per trarre elementi

decisionali utili ai fini della qualità dei nuovi interventi di recupero e/o sostituzione dell'esistente (chi scrive ha partecipato come coautrice all'articolo, in quanto componente della Commissione di studio sul patrimonio storico architettonico di Pescara). Le questioni valutative poste dalla tutela del patrimonio culturale sono riprese nel secondo articolo: gli autori De Rosa e Nocca approfondiscono il concetto di "Paesaggio urbano storico" e rimarcano la necessità di approcci integrati alla conservazione dei valori delle risorse culturali e naturali, nella prospettiva di uno sviluppo urbano sostenibile fondato proprio sulla comprensione e sulla consapevolezza di tali valori. Nell'ambito di tale focus tematico, l'importanza di salvaguardare il valore culturale dei luoghi è riaffermata nell'articolo di Roscika che, con particolare riferimento alle strategie di tutela nella Repubblica Ceca, riferisce sulla opportunità di approcci preventivi e protettivi per conservare le condizioni di sicurezza degli edifici, requisito essenziale per la fruizione del patrimonio culturale costruito.

La seconda area tematica pone l'accento sulla relazione fra architettura e consumi energetici, richiamando il ruolo dell'innovazione tecnologica attenta ai valori ambientali. In particolare, Cannaviello sottolinea la necessità di specifiche strategie di recupero per l'efficienza energetica degli edifici storici, sottolineando come la questione della valorizzazione del patrimonio costruito richieda un complesso e delicato processo di miglioramento delle condizioni edilizie ai fini della fruizione. Nel successivo articolo, Trombadore riporta una interessante esperienza di cooperazione territoriale europea tesa alla riqualificazione del patrimonio edilizio esistente, con particolare riferimento agli edifici scolastici.

Il successivo focus riguarda i temi della rigenerazione urbana e dello spazio pubblico, quest'ultimo peraltro oggetto di dibattito internazionale nell'ambito della Biennale in corso a Roma nel corrente mese di maggio. Nel primo articolo, gli autori Cirafici, Melchiorre, Muzzillo e Violano affrontano il tema della riqualificazione e del riuso temporaneo degli spazi pubblici – luoghi di identità, integrazione, comunicazione e partecipazione – evidenziando il duplice approccio (ecologico culturale e socio estetico) alla sviluppo urbano rigenerativo. Il secondo articolo riguarda il recupero di una linea ferroviaria dismessa, come occasione per ripensare le connessioni tra spazi urbani aperti: con particolare riferimento al caso di Napoli, De Martino, Esposito e Frettoloso documentano un progetto di tesi per la linea Circumvesuviana da convertire ad aree espositive e di mercato, aree per attività sportive all'aperto, e aree verdi con scopo didattico, ricreativo e per attività agricole. Nel successivo articolo, Franchino affronta il tema dell'agricoltura urbana, vista come efficace strumento di rinnovo degli spazi aperti urbani, con significative prospettive ambientali, economiche e sociali. Infine Tzouvadakis, Kaltsounis, Topalidis, Stamos e Sotiropoulou si occupano di un progetto pilota per il recupero di una ex miniera in Grecia, con conseguente valutazione economica dell'investimento di riuso in parco solare.

La sezione sulla mobilità affronta due questioni: il tema della integrazione fra differenti modalità di trasporto, e il tema inerente le strategie di recupero di linee ferroviarie dismesse. In particolare, nel primo articolo della sezione, D'Incecco analizza le infrastrutture intermodali con riferimento ad alcuni casi esemplari di piattaforme logistiche europee, esaminando i casi di Italia, Danimarca, Germania e Spagna, al fine di evidenziarne i principali fattori di successo. Nel successivo articolo, Zazzara e D'Amico offrono un interessante contributo al dibattito sui paesaggi della modernità, affrontando il tema della riconversione di un tracciato ferroviario greco. Gli autori sottolineano come tali infrastrutture in dismissione rappresentino spesso una risorsa preziosa per la loro posizione strategica nel paesaggio (greenways), da riutilizzare come percorsi turistici ed ecofriendly, per soddisfare la crescente domanda di mobilità urbana in bicicletta, o come parco lineare per la produzione di energia rinnovabile.

Nell'ultima sezione, si presentano alcuni notevoli casi di edilizia residenziale sociale realizzata nel contesto europeo. In tale quadro di riferimento, gli autori Panarelli e Di Tonno riferiscono sui concetti di povertà ed esclusione sociale alla luce delle esigenze abitative della società contemporanea e degli orientamenti delle politiche sociali europee nella attuale fase di programmazione 2014-2010. Il secondo ed ultimo articolo riguarda alcuni aspetti di welfare territoriale; gli autori D'Atri e Scardigno evidenziano l'importanza di comprendere i valori del territorio nella programmazione locale e la necessità della condivisione delle scelte pubbliche attraverso idonei processi comunicativi.

Barbara Ferri

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Conoscenza e riqualificazione della città consolidata: il caso di Pescara[1]

Claudio Varagnoli[1] Stefano Cecamore[2] Barbara Ferri[3]

Abstract: La tutela della città del Novecento pone la necessità di riconoscere le aree rappresentative della *identità storico-culturale* e della *qualità spaziale e architettonica* urbana, al fine di evitare alterazioni del patrimonio con conseguente stravolgimento o perdita dei caratteri distintivi urbani. Il paper presenta il caso della città di Pescara che nel tempo ha subìto la scomparsa di numerosi elementi testimoniali, anche in seguito a significative demolizioni. Un recente processo di ricognizione del patrimonio storico-architettonico ha consentito di identificare *ambiti di valorizzazione* significativi nel processo di costruzione dell'identità storica della città, intesi come *unità di paesaggio* da tutelare e valorizzare.

Keyword: Urban conservation, historical building heritage, rehabilitation and upgrading

1. La salvaguardia della città del Novecento: patrimonio architettonico oltre i "monumenti"

La perdita di un esempio rilevante di archeologia industriale come la filanda Giammaria, demolita lo scorso 24 aprile, conferma modalità e prassi costruttive del panorama edilizio recente della città di Pescara e rileva l'urgenza di definire nuovi orizzonti e strategie di tutela di un patrimonio estremamente eterogeneo. Una varietà di fabbriche e

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complessi architettonici che amplia gli attuali orizzonti di salvaguardia e conservazione e la cui valorizzazione appare fondamentale non solo ai fini della custodia della memoria storica cittadina, ma soprattutto per indirizzare lo sviluppo urbano verso nuove logiche di gestione dei beni immobili, degli spazi pubblici e delle infrastrutture, più adeguate alle attuali istanze della collettività.

Mentre si assiste, infatti, alla crescente crisi immobiliare globale, Pescara persegue la sua ostinata cancellazione del passato, intrapresa con la speculazione del secondo dopoguerra, operando demolizioni e rilevanti sostituzioni del tessuto edilizio in ambiti urbani consolidati e alterando e compromettendo irrimediabilmente singole fabbriche o interi complessi architettonici del secolo scorso il cui valore testimoniale è troppo spesso trascurato e frainteso.

Il riconoscimento delle qualità storiche ed estetiche dell'archeologia industriale e dell'edilizia novecentesca risulta complesso data la loro distanza dall'idea di 'monumento' propria del sentire comune, ma assume un ruolo fondamentale nella lettura e identificazione dei nuclei originari e dei luoghi identitari di realtà dinamiche e multiformi, come quella di Pescara, difficilmente inquadrabili nella pianificazione ordinaria e per le quali i consueti strumenti vincolistici si dimostrano inadeguati e raramente applicabili. Gli studi e le attività di ricognizione e catalogazione del patrimonio architettonico, intrapresi dopo il tristemente noto abbattimento della Centrale del Latte[2], mirano a ridefinire la salvaguardia del costruito storico come un processo dinamico in grado di ampliare i confini formali e temporali dei valori preposti alla definizione di un quadro complessivo delle risorse urbane indispensabile per individuare e determinare efficaci strategie di tutela (Varagnoli et al., 2011).

2. Gli Ambiti di valorizzazione per la riqualificazione dei nuclei insediativi storici

La 'Variante di salvaguardia del patrimonio storico-architettonico al PRG' adottata dal comune di Pescara in seguito alle suddette attività di studio e ricognizione, recentemente annullata dal Tribunale

Amministrativo Regionale, nasce dall'esigenza di circoscrivere ambiti di intervento nei quali sperimentare nuove forme di tutela distanti dalla normativa ministeriale strutturata per vincoli disposti per specifiche categorie di beni ai sensi del Codice BB.CC. 2004.

La schedatura del patrimonio storico-architettonico cittadino si prefigura, infatti, come un'operazione preliminare all'analisi dell'espansione urbanistica di Pescara non rispondente allo sviluppo di un centro storico così come comunemente inteso, ma conseguente all'inglobamento di molteplici nuclei originari, sorti in epoche relativamente recenti, i cui caratteri peculiari risultano ancora leggibili attraverso un attento studio del tessuto cittadino.

L'individuazione di categorie, epoche e tipologie edilizie operata sul modello delle indicazioni riportate nella catalogazione effettuata da Bartolini Salimbeni nel 1993-94[3], oggi estesa a tutto il territorio comunale, è finalizzata allo studio dei rapporti tra costruito e contesto storico, ambientale e urbano che richiedono una particolare 'soglia d'attenzione' nell'ambito delle operazioni di pianificazione e intervento edilizio.

La singola fabbrica o aggregati edilizi apparentemente poco significativi sotto il profilo storico o estetico assumono valore rilevante rispetto al contesto e in rapporto alla perdita di identità e qualità urbana che la loro sostituzione comporta.

Gli ambiti urbani individuati attraverso la ricognizione del patrimonio storico-architettonico di Pescara, molti dei quali già prefigurati dal PRG vigente, individuano aree in cui esistono, oltre agli edifici schedati, *valori di insieme* e *di contesto* che suggeriscono un affinamento degli strumenti di salvaguardia, per superare la *logica puntuale* - cioè *edificio per edificio* - della tutela del patrimonio storico architettonico della città.

Si è trattato quindi di individuare ambiti urbani intesi come *nuclei storici* che hanno avuto un *ruolo formativo* nel processo evolutivo della città - borgo del Santuario, nucleo di Castellammare - o che rivestono un carattere di *unitarietà* perseguito fin dal progetto - rione Pineta, complesso delle case dei ferrovieri - o ambiti che hanno assunto storicamente un *carattere identitario* a fronte di diversi modelli insediativi - borgo Marino sud - o che infine hanno assunto il

valore di "città consolidata", cioè un insieme urbano che non può dirsi storico nel senso comune dell'espressione, per il ciclo di vita ancora relativamente breve e per la scarsità di sovrapposizioni e di stratificazioni, ma che assume ormai il ruolo e il valore, anche in senso estetico, di un contesto in gran parte unitario, come nel caso del "quadrilatero centrale".

Ai fini della tutela, gli ambiti vanno intesi come aree in cui la 'soglia di attenzione' è comunque più alta per la presenza di un contesto capace di dare valore a edifici o brani residuali di città non sempre percepiti nella loro effettiva consistenza. In effetti, il riconoscimento dei valori propri di una specifica area urbana può guidare nella tutela di edifici apparentemente poco importanti, ma in realtà storicamente legati a fasi significative dello sviluppo della città. In particolare, la ricognizione del patrimonio storico-architettonico ha evidenziato l'opportunità di suggerire una base di riferimento per gli interventi di tutela ricadenti nei suddetti ambiti, con riguardo ai seguenti aspetti:

1. definizione di norme per la conservazione dei valori propri e di contesto del costruito, con particolare riguardo per situazioni complesse come il borgo del Santuario attorno alla Madonna dei Sette Dolori, per le quali potrebbero essere avviati programmi di recupero;
2. tutela delle finiture superficiali, in ordine al tipo di paramento, alle coloriture, agli infissi, ai manti di copertura, ecc.
3. tutela di elementi di valore generale, come l'arredo urbano, la vegetazione, le pavimentazioni esterne, ecc.

Tali norme tuttavia non dovranno essere intese quali "vincoli" che si sovrappongono ai già numerosi obblighi gravanti su proprietari e operatori: l'obiettivo è quello di utilizzare i valori residuali consolidati per orientare la qualità urbana complessiva, anche e soprattutto nelle zone periferiche e d'espansione.

In tal senso, sarebbe auspicabile il ricorso ad una Commissione incaricata di vigilare su progetti nuovi o di cambio di destinazione d'uso e/o di modifica tipologica o quantitativa del costruito esistente,

sia per garantire la correttezza del rapporto con il preesistente – in termini di rispetto delle tipologie e dei volumi, delle finiture e dei colori, controllo dell'arredo pubblicitario e urbano, ecc. – sia per promuovere interventi di *qualità architettonica*, intesa come rispetto dei rapporti altimetrici esistenti tra strada ed edificato, uso di materiali compatibili, o inserimento consapevole di tipologie abitative.

Un riferimento di interesse è rappresentato dalla "Guida per la qualità degli interventi" del Comune di Roma. Il documento, formulato al fine di garantire qualità alle future trasformazioni, raccoglie "gli indirizzi per tutelare e per rendere funzionale alle esigenze contemporanee lo straordinario patrimonio della città attraverso schede che mettono in corrispondenza gli elaborati di *Sistemi e Regole* con la *Carta per la qualità*", in modo da conservare e valorizzare gli elementi che presentano particolare valore urbanistico, architettonico, archeologico e monumentale.

E' utile ricordare inoltre gli esempi di Genova (Urban Master Plan - PUC 2000 e Piano Operativo per la gestione dell'area storica, 2011), Palermo (Piano Strategico, 2007) e il caso di La Spezia (PUC 2007), i quali si pongono come buone pratiche di valorizzazione del patrimonio culturale nell'ambito di processi di riqualificazione della città consolidata.

Foto 1 Esempio di demolizione e ricostruzione indifferente ai valori di contesto

La conoscenza fondata dei *valori* propri del patrimonio urbano eviterà lo snaturamento complessivo dell'identità dei contesti individuati. Le *qualità* del patrimonio storico architettonico di un sito dovranno essere colte anche nel rapporto con l'ambiente circostante costruito e naturale, in un contesto *multidimensionale* e *multiattributo* (Fusco Girard, 1993).

I principi della *conservazione urbana integrata* (Dichiarazione di Amsterdam, 1975) rappresentano tuttora un requisito essenziale per una pianificazione urbana sostenibile che tuteli gli insiemi architettonici per il loro *valore educativo e simbolico*, e che integri *il patrimonio architettonico nella vita sociale*.

Gli stessi strumenti internazionali volti alla salvaguardia delle città storiche, incentrano le misure della tutela del patrimonio su *uno sviluppo coerente e un adattamento armonioso alla vita contemporanea,* preservando il carattere storico dei monumenti e delle zone antiche, con particolare riferimento alla forma e ai rapporti tra gli spazi urbani, all'aspetto degli edifici – in termini di forma, volume, struttura, materiali, decorazioni – e dunque con rimando al concetto di *valore urbano*, proponendo che le nuove aggiunte e le trasformazioni rispettino l'organizzazione spaziale esistente (Carta Internazionale per la salvaguardia delle città storiche - Toledo, 1986/Washington 1987).

Inoltre la più recente nozione di "*Historic urban landscape*" (HUL) messo a punto nel Memorandum di Vienna (Unesco, 2005) sottolinea la necessità di considerare la città storica in quanto *paesaggio culturale*, tenendo conto che l'architettura contemporanea dovrebbe essere introdotta in maniera rispettosa dell'esistente.

3. Valutazione del patrimonio culturale e riqualificazione urbana

La gestione del patrimonio culturale urbano parte dalla comprensione del *valore locale e universale* che esso rappresenta,

come sintesi di valori educativi, simbolici, artistici, identitari (Carta di Burra, 1979; Unesco, 2002).

La definizione della complessità di valori delle risorse storico-architettoniche è essenziale per capire *cosa tutelare e perché*, al fine di individuare idonee strategie di *valorizzazione integrata* in cui convergano tutti i fattori rilevanti per lo sviluppo urbano. La valenza storica di manufatti singoli e dei contesti potrà essere colta nel quadro della struttura economica e sociale locale, definendo un equilibrato processo di *gestione urbana* che preveda di integrare le finalità della tutela nel quadro più generale degli obiettivi di sviluppo economico, culturale e sociale.

Tale processo richiede politiche innovative di salvaguardia e valorizzazione, basate su un ripensamento del ruolo del patrimonio culturale come risorsa unica e irriproducibile che - oltre a rappresentare valori storici, artistici, simbolici, educativi e ricreativi che ne esprimono il *valore intrinseco* - fornisce *benefici diretti e indiretti*, generando servizi e attività utili alla collettività, fornendo valore aggiunto al territorio di riferimento e attirando investimenti per attività connesse alla fruizione delle risorse (cfr. Girard and Nijkamp, 1997; Greffe, 2004; Rizzo, 1992).

La letteratura estimativa da tempo sottolinea il ruolo dei beni culturali nelle strategie di riqualificazione urbana, ravvisando in tali risorse un *valore economico totale* (cfr. Krutilla, 1967), un *valore d'uso sociale* (Forte, 1977) e un *valore sociale complesso* (Fusco Girard, 1986 e 1993), cui corrispondono specifici procedimenti di stima. In tale quadro, le *valutazioni multicriterio* rappresentano un utile strumento di supporto alle decisioni di intervento nella pianificazione urbana e nella conservazione-valorizzazione del patrimonio culturale, al fine di dedurre le proposte di intervento complessivamente più desiderabili. Di tali strumenti valutativi si auspica oggi un più esteso impiego nelle analisi e proposte operative per il recupero urbano, considerando la complessità e multidimensionalità dei *valori/obiettivi* (quali-quantitativi) rilevanti per tutti i soggetti coinvolti nelle proposte di riqualificazione urbana, e riconoscendo le differenti *priorità* attribuibili a tali valori e le possibili *alternative* di intervento da confrontare (cfr. Ferri e Maturo, 2010).

Le analisi sul patrimonio urbano esistente risultano dunque essenziali ai fini del mantenimento delle caratteristiche dei luoghi che hanno contribuito alla identità urbana e alla formazione della memoria collettiva. La valutazione multidimensionale della *qualità* di ambiti urbani aventi caratteristiche di valore architettonico o comunque aspetti di riconoscibilità insediativa, morfologica e stilistica può partire da un'indagine sulla *qualità culturale* del patrimonio edilizio, da effettuarsi sulla base di idonei *indicatori* che considerino la relazione esistente tra le risorse del patrimonio storico-architettonico e l'ambiente urbano (Ost et al, 1998; Cicerchia, 1997). In proposito, alcuni autori (cfr. ad es. Kalman, 1980) hanno da tempo proposto criteri di valutazione degli edifici storici, con riferimento ai *caratteri stilistico-architettonici, periodo storico, inserimento nell'ambiente urbano, fruibilità, integrità* (Architecture, History, Environment, Useability, Integrity – cfr. anche Cicerchia, 2002). Più recentemente, nell'ambito di studi sul benessere urbano, sono stati introdotti nelle analisi *indicatori soggettivi di percezione dei valori dei luoghi o del loro depauperamento/mantenimento*, o indicatori per valutare quanto i cittadini possano considerare il patrimonio culturale *come un bene comune, portatore di benessere, nel quale identificarsi e per il quale adoperarsi al fine di garantirne il rispetto e la salvaguardia per le generazioni future* (Rapporto BES, Paesaggio e patrimonio culturale, Istat e Cnel, 2014).

Tali indicatori possono essere utilmente considerati per stimare il contributo che le azioni di salvaguardia del patrimonio possono offrire alla ricchezza artistica e culturale dei siti, alla loro qualità urbana complessiva e alla loro attrattività, in modo da integrare le risorse del patrimonio culturale nel complesso delle aspettative di sviluppo urbano. Per tali ragioni, a supporto dei processi di formazione delle decisioni per il recupero e la valorizzazione del patrimonio culturale, è necessario proporre un più stretto legame tra pianificazione urbana e *valutazione* dell'impatto della conservazione/valorizzazione delle risorse storico-architettoniche sull'intero ambito urbano, impatto considerato in termini sociali e culturali, oltre che economici.

4. Conclusioni e prospettive di policy

L'esito del lavoro di analisi e ricognizione svolto per la città di Pescara dovrebbe essere inteso come strumento dinamico, volto a evidenziare *valori, identità e criticità* che si rendano chiaramente individuabili nel tessuto storico o comunque nella sua percezione contemporanea.

La complessità della questione della tutela nel contesto delle dinamiche urbane suggerirebbe infatti l'opportunità di istituire *Osservatori comunali dell'edilizia storica*, finalizzati non ad impedire le trasformazioni, ma ad orientare e scegliere quelle ritenute migliori e più sostenibili, garantendo la qualità d'insieme nel rispetto dei caratteri architettonici degli edifici. In anni recenti, durante le conferenze dell'*International Council on Monuments and Sites* (Icomos), è stato sottolineato che le tradizionali politiche di conservazione urbana non hanno sempre saputo leggere la valenza patrimoniale di alcuni ambiti della città moderna, escludendola da politiche di valorizzazione; pertanto oggi le principali sfide delle amministrazioni locali riguardano la ricerca di un equilibrio tra *sviluppo* e *funzioni tradizionali*, attraverso idonei strumenti valutativi degli interventi volti a rintracciare i legami tra conservazione e opportunità di sviluppo socio-economico.

Come già indicato per la città di Roma attraverso la *Carta della qualità* degli interventi di tutela, gli ambiti di valorizzazione proposti nel caso di Pescara costituirebbero rilevanti occasioni di riqualificazione a scala locale e urbana, con prospettive di innalzamento della qualità morfologica del costruito, o di inserimento di funzioni strategiche.

In effetti, le future politiche di sviluppo del patrimonio culturale dovrebbero porre le risorse ambientali e storico-architettoniche nel circuito delle attività economiche urbane contemporanee attraverso la ricerca di funzioni appropriate, in un contesto di policy mirato ad individuare valori, obiettivi, risorse, vincoli, fruitori e meccanismi per promuovere partnership pubblico-private nella gestione delle risorse (*urban management*).

La dimensione culturale dello sviluppo e i documenti più recenti formulati in ambito europeo indicano l'impegno verso una *gestione*

attiva ed *equilibrata* dei paesaggi culturali, in modo da favorire la loro coerenza d'insieme e integrare la tutela del patrimonio storico con la pianificazione urbana e, in generale, con le politiche di sviluppo delle risorse territoriali. L'interpretazione strutturale della città di Pescara può rivelarsi utile per la messa in valore delle identità culturali urbane, lette nel sistema di relazioni che le risorse storico-architettoniche intessono con la città (Carta, 2004). La lettura delle componenti identificative del territorio urbano porta a valutarne le rilevanze e ad orientare le scelte di valorizzazione in un'ottica strategica di sviluppo futuro.

(**) L'articolo è frutto di un lavoro comune degli autori; nello specifico è possibile attribuire il § 1 a Claudio Varagnoli, il § 2 a Stefano Cecamore, il § 3 a Barbara Ferri; le Conclusioni sono comuni.

Note

[1] Questo contributo deriva dalla ricerca svolta a seguito di incarico del Comune di Pescara (del 15.06.2011) di "Revisione ed integrazione delle ***Schede sul patrimonio storico – architettonico*** - All. D al PRG vigente - con l'estensione dello studio ad ambiti ed edifici singoli compresi in zone *A* e *B1* del territorio comunale", conclusa nel maggio 2012 e redatta da chi scrive insieme agli arch. Patrizia Tomassetti e Cinzia Di Brino. Il lavoro, nella sua completezza, è in fase di pubblicazione.

[2] Sulla demolizione della Centrale del Latte, edificio rappresentativo della cultura architettonica dell'età fascista, si veda *Pescara da salvare: la ex Centrale del Latte* di C. Varagnoli, in (Varagnoli et al, 2011), pp. 63-74.

[3] La ricognizione del patrimonio si è avvalsa della ricca documentazione resa disponibile attraverso le indagini condotte in passato da Bartolini Salimbeni, consulente scientifico del Comune di Pescara per la schedatura del patrimonio storico architettonico, studio di cui si è reso opportuno l'aggiornamento.

Extended Abstract

In the frame of historic urban conservation, the need for protection of twentieth century cities is a focus of the current urban policies. The integration of the complex meanings and values of the historic city - considering also urban heritage not yet recognized of

architectural interest – within the wider development processes is recognized essential for a sustainable urban management.

This requires to identify areas which should be safeguarded for characters of *historical-cultural identity* and *spatial-architectural quality* to avoid alterations of urban characters and the loss of elements of historical significance.

Recent destructions of cultural heritage in Pescara has put the opportunity to identify specific areas for preservation and valorization; they are representative of the construction process of the historical city, as units of urban landscape to be protected and enhanced.

The concept of *historic urban landscape* (HUL) developed in the Vienna Memorandum (2005) refers to the need to consider the historical city as *cultural landscape* configured in its stratification, in which the contemporary architecture should be introduced with care for the context. The references to the general plans of Rome and La Spezia are important to define appropriate actions to preserve and enhance the urban heritage of particular architectural, archaeological and monumental value.

The complexity of heritage protection within urban dynamics also suggest the opportunity of municipal Observatories on historic buildings, intended not to prevent changes, but to ensure quality of interventions for urban renewal in compliance with the architectural features of existing buildings. In the international current debate on historic urban heritage it has been highlighted that the traditional policies of conservation have often not analyzed the cultural value of important areas of the modern city, excluding it from preservation and enhancement; for this reason today the main challenges of local governments concern the possibility to integrate protection and urban development, using suitable methods and tools for evaluating plans and projects on cultural heritage.

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Sustainable development and urban conservation: the challenge of Historic Urban Landscape

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Abstract: The Historic Urban Landscape approach analyses the city as a living organism, as a systemic interrelation of economic, social, environmental and cultural factors (tangible and intangible values), as a complex and adaptive dynamic system. The HUL approach, recognizing links, relationships and connections can be interpreted as an indirect leverage for circularizing the traditional economic model (starting from a cultural heritage economy) and for promoting synergies between different agents/institutions. This intrinsic value of cultural and natural heritage is based on a more complex vision, which considers not only the monetary component, but expresses the "complex social value" of these assets, considering it in its specific community and environmental context. This perspective implies a systemic and integrated approach to conserve of HUL through a set of evaluation tools to achieve cultural goals, but also to compare costs of the preservation of the past with future benefits of the transformations in a multidimensional perspective. HUL approach requires new hybrid evaluation tools to identify and evaluate the economic value of the heritage and to convert soft values into monetary values.

Keyword: urban conservation, sustainable development, HUL, complex social value, hybridization, evaluation tools

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1. Introduction

Urban growth is transforming the features of many urban areas. These global processes have had a deep impact on the values attributed by the communities to urban areas: on the one hand, urbanization has provided economic, social and cultural opportunities, in order to improve the quality of life and the traditional character; on the other hand, the uncontrolled changes of urban density and growth have often undermined the sense of place, the integrity of urban environments and the identity of the community.

In this context, historic cities are considered to possess cultural capital as a promising source of income and welfare in a globalized and highly competitive world economy. The forces of changes which characterize the historic cities are mainly economically driven, and can be handled successfully only with similar and consistent approaches both from conservation and economics [1].

This is the interpretation proposed for the Historic Urban Landscape approach promoted by UNESCO [2], according to an economic perspective, embedding adequately the systemic and collective dimensions of the historic urban landscape.

The challenge is to connect the conservation of cultural heritage values with the promotion of economic development, while considering the costs of preserving the past with the benefits, not only economic, of a sustainable development of historic cities. This challenge of generating a symbiosis between conservation and transformation issues requires adequate evaluation methods and financial tools, engaging civil society and local stakeholders, capturing both HUL tangible and intangible values. These new tools should be able to convince that investing in cultural heritage produces a lot of benefits (also economic).

In the following paragraphs, after some considerations about the values of the Historic Urban Landscape and the notion of hybridization, two case studies are proposed, focusing the attention on economic aspects in a multidimensional perspective, to underline as

HUL regeneration can produce economic attractiveness and also strengthen social awareness and cohesion.

2. Complex values of HUL

The idea of complex landscape, characterized by the coexistence of multiple identities, is the basis of UNESCO Historic Urban Landscape approach promoted by UNESCO in 2011, which consider the urban area as: *"the historic layering of cultural and natural values, built environment, visual relationships; social and cultural practices and values, economic processes, and the intangible dimensions of heritage"* [2].

This approach analyses the city as a living organism, as a systemic interrelation of economic, social, environmental and cultural factors, passing from a mono-disciplinary vision of urban regeneration actions to an integrated and participatory process of management of the change, with focus to the tangible and intangible values and to the system of relationships and synergies. This approach, linking the old with the new, past and present, present and future, intrinsic values and instrumental values, conservation and management, puts from a circular perspective all aspects in a holistic/systemic view [3].

It is clear, therefore, the need to find a different perspective for the realization of a strategic management which is able to understand, interpret and enhance the richness of diversity and the complex variables of the Historic Urban Landscape transformations: environment, economy, social relations, knowledge, etc. A process of 'managing thoughtful change' [4], that wants to be recognizable, reliable, effective and sustainable, have to be able to define the configuration of a settlement system in accordance with established values and potentiality of an area, with its cultural heritage, its environmental system and its productive potential, taking on the richness of its complexity as the matrix of its sustainable development. This approach focuses its attention on links, relationships, connections, identifying not only goals, but values

(cultural, historical, urban, social, economic, environmental, natural) to be preserved in the development of cities.

In this perspective, the management of historic urban landscapes becomes an essential component of overall sustainability of the city. The approach centred on the historic urban landscape is thus aimed to preserve the quality of the human environment and improve the productivity of urban spaces, integrating the goals of heritage conservation with the socio-economic development, on the basis of a balanced and sustainable relationship between built and natural environment as a system of interrelations and connections (between the historic centre and a wider territorial, physical/spatial, environmental, cultural, social context). The starting point is thus the interpretation of the city as an engine of economic development (as a place of creativity and innovation in which 70% of the GDP of a country is produced), and not the single set of monuments or historic site: the "social complex", that is the "living heritage"; that is the system which links the stones (physical space) to life itself [3].

The intrinsic value recognized to the assets of cultural and natural heritage from the UNESCO Historic Urban Landscape approach, is based, therefore, on a more complex vision, which considers not only the monetary component, but expresses the 'complex social value' (VSC) of these assets, without separating them from the community and the environmental context [5], [6]. The complex social value of a resource can be defined as a combination of its economic value and its "intrinsic value", that can be deduced from the information relating the role of this resource in a specific social system. This value can be defined social, because it suggests to take into account the points of view of different systemic components, which recognize all in some organizational rules through which is realized the compatibility and integration between oneself and others; and complex, because it reflects the recognition that the value exists independently from the exchange, but is linked to the system itself. This notion considers all users of a resource (direct, indirect, potential and future), the values of use and non-use and incorporates in itself the intrinsic values.

The landscape quality, as a major attractor of business, investment, specialized workforce, talents, residents and tourists,

becomes a crucial element in improving the economic and competitiveness capacity of a city and that is an important driver of local development.

3. Hybridization

This complex vision of the historic urban landscape, interpreted as a result of the interaction among six different landscapes (natural; man-made; man-made/cultural; financial; social; human landscape) proposes a new pathway that move from a control of resource conservation to a 'dynamic change' [7]. In fact, this approach recognizes that the urban landscape adapts itself according to the dynamic development of the city.

In this framework, the hybridization could be the strategy at the base of historic urban landscape conservation/regeneration and so of the symbiosis between conservation and sustainable development. Conserving the identity of a place, the hybridization recognizes the necessity of the change in order to "meet'' the needs of contemporary society.

The notion of hybridization sources from the world of genetic and it is related to the crossbreed and graft between different species. The logic at the base of hybridization is that different functions and programs are in a whole, but they are not just juxtaposed; there is not a simple connection of heterogeneous elements among them, but they share intensity. So the hybridization is associated to the process of production of value, thus to synergies, symbiosis, circular processes, and then to the system resilience.

The different elements put in a whole system give properties to the elements themselves that, individually, they have not.

It is possible to find the hybridization notion in different fields as architecture, urban planning, economics, culture and politics.

Going from genetics to the automotive sector, an example of hybridization is the Hybrid Toyota that fixed two different systems (a gasoline engine and an electric one), increasing its performances.

Another example of hybridization is the roman *domus:* it was a hybrid place where private and public life lived together in a perfect balance and so there was a combination of functions and programs in continuous relation. But also it can find the concept of hybridization in other examples as the square, religious architectures, etc.

The result of a hybridization process can be negative, but most of the time the result is more positive because it is able to produce plus-value.

The notion of hybridization is becoming a central concept in the growth of globalization [8] and in particular in the symbiosis between conservation and sustainable development. The hybrid is able to generate new scenarios that, in turn, are able to respond to the dynamism and continuous evolution of the city.

In the hybrid landscape multiple identities live together; the heterogeneous and dynamic nature of hybrid is able to increase its attractiveness and promote the concentration of activity, relations, collaboration, cooperation, bonds, etc.

Hybrid landscape represents the most efficient scenario for the urban transformation of our century because it is able to regenerate social bonds and revitalize a place, adapting it to the needs of contemporary city, to its complexity and heterogeneity.

It is able to reinforce the sense of community and it has positive effects on the human/social capital increasing wellness, social identity and reducing, in turn, negative aspect as violence, drogue, ghettoization. It is able to stop processes of degradation produced by depopulation/ageing and to rebuild local economy and stimulate a new demand.

By hybridization (when it is a successful) the historic urban landscape is able to increase attractiveness and regenerative capacity, becoming a catalyst of new activities and new functions.

The indispensable condition for hybridization is the deep knowledge of the object of intervention; the knowledge, and above all the awareness of its value, represents the start point for the success of every project. The knowledge increases the awareness and thereby the capacity of the cultural heritage to produce economic, social and environmental plus-value.

Cultural heritage has value in itself surely, but also it can contribute, through the hybridization, to sustainable human development, economic growth and job creation. It is the empirical evidence that shows this and so in this framework the integrated conservation becomes a crucial investment.

In the flow-city [9] the city characterized by a continuous flow of material and no-material resources, different components, stakeholders, public and private, static and dynamic, etc. find their meeting point in the hybrid.

4. Case studies

This new paradigm implies necessarily that there is an underlying link between conservation and economics: not only to define a set of tools to achieve cultural goals, but also to compare the costs of the preservation of the past with the future benefits of the transformations of historic urban landscape in a multidimensional approach. Nowadays cultural capital is acknowledged as a powerful economic force in attracting investors and new business, reversing the economic paradigm for development: while economic factors used to bring welfare, today livability and urban amenities generate economic benefits [1]. Accordingly, economics of conservation, that brings economic criteria into the protection and the management of historic urban landscape, has become the heart of the debate between historic preservation and economic development.

This perspective of *integrated conservation* of the historic urban landscape, as central element for the sustainable development of cities, correspond with new tools, starting from *integrated evaluation* which consider all quantitative and qualitative impacts in the short, medium and long term for all stakeholders involved. The evaluation is an essential element to manage the conflict between interests and values and to promote experimental governance, based on the principles of sustainability, resilience and creativity.

So, the complex social value expresses, in the evaluations, a more general point of view, as it does not consider the one-sidedness, to

open to the multiplicity and heterogeneity, assuming inside the integration between economic and non-economic evaluations, or between the values expressed in monetary scales, ecological evaluations and evaluations of social quality [10].

As a set of case studies shows, is just in this direction that the international research about the evaluation of the transformations of historic urban landscape is moving nowadays, focusing the attention to economics aspects in a multidimensional perspective.

4.1. Heritage Preservation in the Metropolitan District of Quito

This study, promoted by Inter-American Development Bank [11], evaluates the benefits of rehabilitation process for the Historic Center of Quito, listed by UNESCO in 1978, to change the image of deterioration and decay of cultural sites, after 20 years of sustained public investment in terms of urban, economic, social and institutional factors, regarding improving the quality and functionality of public spaces, as well as the urban infrastructure as a condition prior to attracting private investment.

The rehabilitation of heritage buildings has helped, but there has been little response from the private sector.

Despite the historic center of Quito received significant public and private financing, under a complex administrative control system that has developed environmental and transit improvement policies, the data show conflicting results (see table 1).

The increase in public investments during the period between 1989 and 2003 has produced positive effects on the state of preservation of the properties, reducing the properties in poor condition from 25% to 6% (this date remains stable).

Despite an increase in private investment, it is still less than public investment levels. In particular, the private investment has been primarily directed at commerce and services: restaurants, hotels and popular shopping centers. This has determined that the uses of the area are not balanced, and even more so given that the area tends to show a predominance of commercial activities and housing services.

Encouraged by the municipal government, certain neighborhoods have become zones with mostly cafes and museums, which means that

they are frequented on certain days of the week, but they are at risk of becoming temporary fashionable sites that do not ensure the sustainability of the sector and create a desirable environment for residents.

Preservation status of patrimonial asset		**1989**		**2003**
		75% regular		5% good
		25% poor		89% fair
				6% critical to poor
Average of investments in heritage buildings by year (2000-2008)		c.11 US$ millions		
Accessibility and users traffic in the area		50,000 vehicles per day		
		60,000 people per day		
Parking facilities (parking spots)		**1989**		**2009**
		2,500		3,135
Rent for land use		**Commercial unit**		**Housing unit**
		US$ 1,500/month (for 100 m^2)		US$ 500/month (for 100 m^2)
Trends in land use		**1990**	**2003**	**variation**
	residential	63%	45%	-18%
	commercial	6%	20%	14%
	others	31%	35%	4%
Value of properties (for properties in poor conditions)		**2000**		**2009**
		US$ 21 (for 1 m^2)		US$ 250 (for 1 m^2)

Table 1. some quantitative indicators of rehabilitation program in Quito

In addition, residents are moving away to other area: between the 1990 and 2001, the population of the Metropolitan District of Quito grew 32.7% and the population of urban areas of Quito grew 26.4%; the population of the Historic Center of Quito, instead, reduced 12.6%. New inhabitants do not compensate the decrease in residents.

Despite the investment, the poverty indexes of the residents continue to be comparable to the poorest areas of the city.

The central nucleus continues to have the “museum phenomena”. It is a sector that empties after 7pm, leaving it only open for nocturnal tourism and increasing its vulnerability to crime. This lack of control not encourages investments. Furthermore, taking into account the

origin and destination of the vehicles, it is estimated that 50% of the traffic in this area is only passing, thus the HCQ is used overall as a throughway for people coming and going to work.

Therefore, in the case of Quito, its attractiveness could actually handicap it by turning it into a "theme space" that basically relies on a flow of external residents and tourists without incorporating important components to generate social improvements for residents. Treating it as a specific issue has not allowed for important issues that explain and resolve structural aspects such as the reduction in population and the poverty of the sector inhabitants.

In Quito, the greatest motivator for a sector's conservation has been the government, which seeks to promote and recover the center for external fluxes such as tourists and large events, which have little effect in attracting private investments. The little investment made in housing is the demonstration.

This compromises its medium- and long-term sustainability.

4.2. Oaxaca de Juarez

There are a lot of examples that give empirical evidence to what was said in the previous paragraphs and that show that investing on cultural heritage is worthwhile and produces a lot of multidimensional benefits.

A case study that shows the success of a rehabilitation program and hybridization processes is Oaxaca de Juarez, case study promoted by Inter-American Development Bank [12].

Oaxaca de Juarez, the most ancient inhabited area of Mexico and its historic centre, the second largest in the country, was listed by UNESCO in 1976.

The city of Oaxaca is characterized by a mixed urban structure, in fact it can find in the same place different architectural styles, public spaces, urban functions (for example government, commerce, education, culture, religious activities).

The main square of the city, Zócalo, is a hybrid space where government and administrative offices, commercial activities, social spaces, and employment opportunities are combined in one place.

The hybridization of activities in the historic centre, as the combination of residential and commercial use, is a positive aspect because it assures a "vibrant dynamic" in the area [12].

The rehabilitation program had a lot of important positive outcomes that shows the benefits (also economic) of investments in cultural heritage. There are a lot of indicators that show this success.

For example today, after the rehabilitation program, the tourism in Oaxaca de Juarez accounts for 12.8% of the employed population, 10.3% of the total gross domestic product (GDP).

The annual number of visitors has undergone a significant increase following the regeneration project (see table 2). Only in 2006 there was a decrease because of a socio-politic conflict and, more recently, the fact that the first dead due to the H1N1 virus was an Oaxacan.

In most cases, it thinks about tourism as the only economic output of a rehabilitation/conservation/regeneration program; it is only the most evident output, but there are others.

For example, after the inclusion on the UNESCO list and the rehabilitation program, real estate values began to increase. Residential real estate values are rising at a rate of about 20% per year and the price per square meter is doubled from 2000 to 2010, partly due to the presence of outside investors.

An important factor is that residents did not leave the centre and so the historic centre of Oaxaca never lost its importance; thereby public spaces and buildings are in good condition and not in a state of neglect and degradation. The continuous use of the area preserved both tangible and intangible heritage.

Annual number of visitors	**1999**	**2005**	**2008**
	671,171	1,125,581	c. 900,000[1]
N. of hotels	**1999**		**By 2005**
	173		240
N. of hotels rooms	**1999**		**By 2005**
	5,111		5,922
N. of "units" in tourism sector	Temporary accommodation		194
	Food and beverage		1,859
	Other tourist services		68
	TOT		2,121
N. of employees in tourism sector	10,000		
Percentage of the contribution of hotels to tourism sector income	37%		
Percentage of the contribution of hotels to tourism sector total revenues	48.8 %		
Percentage of the total workforce employed in hotels	28.8%		
Percentage of the contribution of tourism sector to GDP	10.35%		
Percentage of fixed assets represented by the tourism sector	5.8%		
Percentage of workers (tourism sector) employed in food and beverage establishments	66,6%		
Percentage of employed population related to the tourism sector	12.8%		
Percentage of crowding in restaurants during holidays	70-80%		
N. of craft stores	164		
Percentage of wealth of the tourism sector generated from the food and beverage establishments	57% (with only 23 percent of capital investment)		
N. of vicinades (Units that hosts different families that share facilities - lavatories, kitchens, etc.)	**1997**		**2008**
	75		35
Price of properties	**2000**		**2010**
	US$600 per sqm		US$1,200 per sqm

Table 2. quantitative indicators of rehabilitation program in Oaxaca de Juarez

Also gastronomy (it is declared a national heritage in 2006) and craftwork are important components of the city wealth (see. tab. 2);

for the first one it is sufficient to think "that food and beverage establishments employ two-thirds of the workers in the tourism sector" and "generate 57% of the wealth of the tourism sector with only 23% of capital investment" [12]. They generate more profits than other tourist activities in the city of Oaxaca de Juarez; moreover, an important indicator related to craftwork is that there are between 22,000 and 25,000 craft producers in the state of Oaxaca of which about 2,500 are located in the city of Oaxaca de Juarez.

The success of the rehabilitation program was also the hybridization of public and private that is the involvement by both public and private actors. Public investment acted as a catalyst for private investment.

Oaxaca de Juarez is an historic centre for all age and it is alive in all day long, in morning as in the night. This area is the centre of civic life and it is for both residents and tourists. Although some issues still to be solved, as car traffic, informal street vendors, etc. "the historic centre is not just a lifeless museum for people to visit, but a teaming city with a rhythm of its own" [12].

The case of Oaxaca de Juarez shows the benefits of the symbiosis between conservation and development it gives empirical evidence to that the hybridization is able to produce plus-values.

5. Conclusions

The HUL approach, recognizing links, relationships and connections, can be interpreted as an indirect leverage for circularizing the traditional economic model (starting from a cultural heritage economy) and for promoting synergies between different agents/institutions.

The case of Quito has shown that it is impossible to carry out a process of sustainable conservation action if this is treats in a detached way, without incorporate plans, programs, and policies for social improvement and for raising the economic level of the sector residents. The redevelopment of the old town has produced economic benefits (increase in the price of real estate, tourism, businesses, etc.),

but has neglected other aspects such as the social sustainability, not has produced an increasing in the use of the center for living, sense of belonging, not has improved the living standards of the inhabitants, and not has reduced poverty levels.

The case of Oaxaca de Juarez shows that hybridization of actors (public, private, etc.), of functions, of activities and the tangible and intangible local resources can contribute to the economic growth and social development of the city making it always vibrant and living.

This demonstrates that an all-inclusive dynamic needs to be present in rehabilitation processes. It is fundamental for the cultural heritage sites to be seen as integral parts of the city rather than as a specialized sector. There must be a development plan agreed upon by the different stakeholders, which addresses interests other than just political ones or highly profitable ones.

HUL requires new hybrid tools [8] for managing change and in particular, it requires new tools for evaluating different alternatives based on their multidimensional impacts: the focus must be on identifying and evaluating the economic value of the heritage, with the use of quantitative and qualitative data, indicators and maps, as UNESCO recommends.

The economic approach can be the main leverage in defending landscapes, if soft values (such as visual landscapes cultural values, etc.) are converted into monetary values.

Clearly, a single economic approach, even though necessary, is not sufficient to identify such limits to change [13]. Multi-criteria and multi-group evaluations are key hybrid tool [8] for the management and the comparison of the positive and negative effects, to balance and compensate for the different impacts for all stakeholders (public, private, financial, social, civil).

Thus the HUL approach necessarily requires an adaptation of evaluation tools to improve decision-making processes related to the transformation of the landscape. Increasingly useful is therefore an integrated approach that allows that to interpret problems and issues related to the historic urban landscape, that are complex, heterogeneous and often contradictory, to reach, through appropriate methodologies to rationalize choices, to win-win solutions that take

into account different values for the different stakeholders involved. Thus the research has to go towards the direction of defining new systemic approaches and new indicators to transform qualitative evaluations in quantitative data**.**

*This paper is the result of the joint work of the authors. In particular, it is possible to attribute §§ 2, 4.1 to Fortuna De Rosa; §§ 3, 4.2 to Francesca Nocca. §§ 1, 4, 5 are common to the authors.

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Housing Policies and Urban Economics Vol. 2, No 1, (2015), pp. 31 - 40

Cultural heritage interests as a part of municipality development

Zdena Rosicka[1]

Abstract: Cultural heritage is one of factors in supporting social and economic development, particularly in countryside regions. Conservation, restoration and utilization of cultural heritage, unique architectural assemblages of buildings, parks and open space can offer reasonable cooperation between public and private sector, employment chances for craft specialists, improved living of residents, tourism support, sustainable development of urban services and infrastructure networks.

Keyword: development, craft-specialists availability, tourism

1. Planning calls for multidisciplinary approach

We can characterize planning as a science, whose objectives are to be achieved in the future. Cultural heritage, however, is essentially the shared memory and it belongs to the past. Therefore, it is particularly important, what heritage policy criteria are applied to sensitive characteristics of every place and its inhabitants; in addition, what approach to the problems of town planning should be selected: purely quantitative, normative, economical, social or multidisciplinary.

ICOMOS 1987 International Charter for the Conservation of Historic Towns and Urban Areas suggests some procedures how urban planning, effective conservation and historic specificities can be combined. Historic character of the town or urban area as well as

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material and spiritual elements should be preserved and systematic approach and discipline at conservation process must be followed. In addition, conservation of historic urban areas and city centres must always be an integral part of coherent policies of economic and social development and of urban and regional planning at every level.

Increasing share of tourism in gross domestic product calls for engaging local "cultural goods" into the economic process; there are required qualified experts in the field of arts, diverse cultural fields and economy knowledge being a part of municipalities, and, conversely, managers should not miss the deeper expertise in issues covering the importance of cultural resources for economic recovery.

Material cultural monuments are parts of the rich national history, and they link the past with the present. Cultural heritage can be defined as "... the configuration of cultural elements and ideas that are universally shared ... as a result of material and spiritual activities of members of a culture passed following generations as a specific type of inheritance. A characteristic feature of the transmission of cultural heritage is a continuous interaction between cultural tradition and cultural innovation. ..."(Soukup, 1993)

Sustainable development of historical environments is usually characterized as creating modern historical layers without compromising the future. Towns and cities had been created during a many-century period and their development was slow, step-by-step. Nowadays, technologies and machinery are available, aggressive developers are waiting for fast profits and insufficiently unambiguous legislation can destroy irreplaceable values in several years if continual awareness and careful planning are absent. However, this fact does not mean that changes have to be prevented and everything should be kept forever as a "Sleeping Beauty Castle".

2. Heritage, modification, safety

Many heritage buildings need upgrading to comply with current standards of safety and security. It is beneficial and essential for their long-term protection or it helps to secure a viable use. In most cases,

heritage buildings can be modified to meet the intention of current building regulations and suitable security measures can be put in place. The challenge is to do it without losing the qualities that can give the buildings their heritage significance.

Municipality officials responsible for cultural heritage safety domain always try to achieve compliance with current safety standards and look for various alternative methods, which can satisfy both heritage and safety issues. They have to consult relevant authorities, experts specialized in testing and applying restoration and conservation techniques so that final solutions minimize the negative impact on the building in question. Speaking about safety standards, modification-oriented proposals consider a building code, personal and public safety and the place insurance.

When considering modifications, whether for public or private use, we should always explore options minimizing harm to its cultural heritage significance. To find a good solution to improve safety and security without harming the cultural heritage value of a place, it means to follow a logical and systematic approach: to establish the significance of the place, undertake the audit of current safety and security conditions, specify diagnostic techniques, prepare a safety and security policy, prepare a schedule and have craft-specialists available.

Considering prevention, there are still some barriers, which are being solved and removed; unfortunately, very slowly. Many of these barriers are still rooted in perception prevalent among professionals at municipalities dealing with heritage; low-level communication and ´passive´ resistance, which usually changes in the moment of critical situation (flood calamity, etc.) The focus of the 1996-99 ICOMOS triennium – The wise use of heritage – offers an admirable framework for increasing the attention given to cultural heritage at risk and communication related.

Many built-heritage professionals are still more accustomed to planning for intervention than for prevention. Interventions are visible and dramatic, and permit explicit exploration of various conservation philosophies; approaches focused on maintaining the existing state of the resource rarely carry the same professional appeal of interest.

Preventive approaches extend the life of cultural heritage at a smaller long-term cost; authenticity is maintained at higher levels if refashioning episodes can be avoided. However, improving preventive measure-focused communication offers many benefits: the extension of the life of cultural heritage properties brings a tangible benefit upon these properties; adopting a cultural-heritage-at-risk framework refocuses conservation attention from the curative to the preventive, from the short-term to the long-term, and consequently offers property owners significant opportunities to perform long-term savings.

3. Heritage protection in the Czech Republic

In the Czech Republic, the heritage protection covers individual buildings, sites or heritage areas. The Ministry of Culture declares property as cultural heritage monuments; they are registered in the Central Register of Cultural Heritage kept by the National Institute for Heritage Preservation. The most important cultural heritage monuments can be declared by the government as national cultural heritage monuments; cultural heritage areas are protected under the category of heritage site reserves or heritage zones. The Czech Republic was one of the first countries to introduce protection of entire historic town centres. The notion of the urban heritage site reserve was used for the first time as early as 1952. It became part of the 1958 Act extending the notion to further types of monuments such as rural settlements, archaeological and industrial sites.

In 1991, Czechoslovakia ratified the Convention Concerning the Protection of the World Cultural and Natural Heritage and since then 12 sites in the Czech Republic have been inscribed in the World Heritage list (Prague, Brno, Cesky Krumlov, Kromeriz, Kutna Hora, Olomouc, Litomysl, Telc, Trebic, Zdar nad Sazavou, and Lednice–Valtice Area). The Czech UNESCO heritage is an association of districts and towns in the Czech Republic, whose territory contains monuments entered in the UNESCO World Cultural and Natural Heritage List.

In terms of history, preservation and development, local authorities are responsible for creating forward-looking city plans.

Situation in the Czech Republic requires specific approach since there are many small historic towns and cities, which would deserve more attention, long-term preservation, protection and prevention; unfortunately, they are neither World Heritage Cities nor heritage site reserves nor heritage zones. However, these cities with unique features and atmosphere become centres of micro regions; they attract both domestic and foreign cultural visitors.

Every object being a part of the historical collection and areas in the territory of heritage protection must retain its original character even after rehabilitation and reconstruction. Churches, town mansions, fountains, cobblestone streets, arcades, stone statues, columns and other elements are materially and visually connected. Inappropriate technology in repairing one can mean the loss or injury to another and the overall perception and impression is disrupted. Any construction activity within the heritage protection territory has to be discussed with the authorities of the state of conservation, whether it is a valuable heritage building, cultural monument or building that complete the character of heritage zones.

Work on the restoration of monuments is in many ways different from ordinary activities at construction sites. Therefore, everybody involved directly in preserving heritage values, i.e., owners, designers and craftsmen should have sufficient knowledge of the meaning of cultural heritage and its values.

Restoration of monuments and other objects of cultural heritage encompasses a broad spectrum of activities that require knowledge and skills, often beyond individual professions. Recovery often requires a special approach, interdisciplinary knowledge and among other the ability to recognize and protect the historical substance, whose loss is always definite. Activities that lead to recovery, proper and correct in terms of preserving cultural values are characterized partly craftwork and restoration. Within these categories, however, there is also a wide range of specialized craft applying procedures from the restoration field: diagnosis, documentation, limited remedies (exchanges), reversible intervention techniques, etc. Participants in the recovery process must have a wide range of professional

knowledge and skills to be able to deal with situations of this process and select the appropriate procedure.

4. Craftsmen from Telc

The National Heritage Institute, Regional Office in Telc, launched on 1 April 2013 a two-year project "Increasing competitiveness in the context of lifelong learning in the field of rehabilitation and sustainable development of cultural heritage", supported by the European Social Fund and the state budget through the Operational Programme education for Competitiveness. The aim of the project is to create an educational program "well-crafted restoration of cultural heritage objects" within the further education of professionals engaged in the restoration of cultural monuments and objects of cultural heritage, and increase education and competitiveness in this area. The educational program offers the opportunity to learn about the latest techniques in the context of the restoration of cultural heritage in view of current trends and requirements of conservation. The program includes nine professional modules, each in the range of 100 hours of instruction, divided into theoretical and practical workshops that take place primarily on endangered monuments located in the Vysocina (Highland) region. Pilot verification of each module-training program took place during 2014 and counted with a capacity of 90 participants. It is a pilot project and, in fact, the first project of its kind in the Czech Republic.

The first module "Monument preservation and preparation and implementation monument restoration" was designed for owners and managers of monuments, contractors of listed and historic buildings (building managers), including representatives of churches and non-profit organizations and professional executive staff and vocational components of state heritage preservation. Further modules (second - ninth) are designed for craft-specialized participants, i.e., a bricklayer, plasterer, mason, painter-decorator, joiner, carpenter, blacksmith and roofer; the pilot program finishes in March 2015. In 2015 - 2017,

another round of this training program is to be organized; however, the training costs will be paid by program participants.

5. Role of local authorities

Open borders after 1989 did not attract the expected number of foreign tourists to small picturesque towns in the Czech Republic. Municipalities in small towns know local situation and they have tools to handle the process efficiently. There are not too many members in municipality councils and they are usually able to find a consensus when discussing economical and tourist development topics. Small countryside centres are usually very cosy and compact and therefore it is necessary to investigate the potential to develop tourism there. Constructing new hotels is money consuming, and besides, they hardly fit the old development; tourist would use them up for one-two seasons a year, however, all-year maintenance is costly. On the other hand, there are homeowners and they can offer accommodation in a historic house, close the square, near the castle, in a former vicarage, wine cellar, barn, etc.

Changes or modifications of the existing historic buildings are often critical points, therefore local authorities prepare special guidelines to be followed; house owners´ requirements in terms of dwelling space, illumination and sanitary components are usually not fully or sometimes partially incompatible with arrangement of an old house. City planners, municipality representatives, heritage protectors as well as public representatives try to find the same language how cultural heritage could be used in contemporary conditions and earn money for the municipality budget. They learn abroad, arrange knowledge exchange with partner towns and villages; south-Moravia cross-border cooperation is targeted at wine cellar culture tours, Vysočina (Highland) region has been attractive for the Dutch tourists, Gold Ski region in Moravia is regularly visited not only in winter and picturesque calm wooden village homes with duck ponds expect exhausted workaholics.

6. Perception of monuments and environment

The effect of environment on humans has both temporary and long-term nature and long-term exposure can cause lifelong fixation relationship or feeling. People perceive cultural dimensions of space intentionally; regardless these are cultural symbols, architectural objects, shapes, colours typical for the territory and landscape. Another factor affecting perception results from education and overall outlook, technical focus, age, type of personality, experience, length or intensity of perception. The paradox of perception is the fact that for residents of certain areas of the city, the historic centre becomes invisible; however, it still exists in their subconscious. Residents perceive architectural specifics, details, shapes, colours, unlike tourists, for whom it becomes the amazing environment and deep experience.

Residents' attitudes towards the cultural heritage are very important as well as considering their opinion. There is always a risk that development and change may threaten the cultural continuity of historic city centres and zones and traditional qualities will be lost at the expense of innovation and uncontrolled development. The municipality projects contribute to the enhancement of critical areas and adaptation of historic buildings for residential, working or community use and make them viably habitable. The public and residents always highly appreciate if aims of municipality programs emphasize improving living conditions, improving physical conditions of historic building within the municipality; on the other hand, municipality gains credibility and favourable atmosphere from the community towards further steps. The political will in the municipal council, common sense and consensus between administrative departments and open dialogue with citizens produce desired results. Integration of conservation steps into municipality plans takes time; new pavement is more attractive and visible improvement of living comfort; a complicated pitched roof repair or a tower clock restoration need more time and money from the municipality budget. We can just

hope and believe that the planning process, urban conservation and cultural approach go hand in hand and are moving the right way.

Extended abstract

Cultural heritage preservation is an important component of sensitive equilibrium between social, economic and cultural development. The built heritage is often exposed to the threats of demolition and alteration; however, it is an invaluable asset if properly maintained and preserved; it brings benefits to local communities, starts new educational projects, offers employment for skilled craftsmen and improves living conditions for residents.

Residents are engaged in economic activities, they keep traditions, local culture and neighbourhood identity. Unique residential buildings, parks and open space can offer new preservation approach based on reasonable cooperation between public and private sectors, municipality, public and specialists. Every object being a part of historical development within listed or non-listed areas meets its original characteristics after the recovery process. The unique urban structure makes the village, town or city an unrepeatable phenomenon, which should be emphasized; otherwise, unification may irreversibly remove the image of the place. Functional diversity and variety are maintained, and mixed use of individual buildings offers new compatibility chances.

Municipalities are able to handle cultural heritage changes and restoration-conservation treatments carefully and master the development process; at the same time, new activities are substantially encouraged, such as currently popular adventure tourism, sustainable development of urban services, new work positions and infrastructure networks.

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Housing Policies and Urban Economics Vol. 2, No 1, (2015), pp. 41-48

Improving the energetic quality of the built heritage in the consolidated city

Monica Cannaviello[1]

Abstract: In spite of the gradual increase of the energy efficiency requirements, the historical buildings are frequently excluded from the paths of energy efficiency in existing building heritage. On the other hand, to valorise and make accessible an historical building, we have to ensure the best conditions for its utilization through appropriate comfort conditions , not neglecting energy efficiency. It is therefore necessary to identify specific strategies for the energetic rehabilitation of historical contexts.

Keyword: Historical buildings, rennovation, energetic quality.

1. Energy efficiency of historical buildings

The legislative developments concerning energy consumptions of the building sector that are determined in Europe with the 2002/91 / EC Directive, known as Energy Performance of Building Directive (EPBD), currently repealed by the 2010/31/EU Directive (EPBD recast), have led to a gradual increase of the standards of performances related to buildings.

The new standards are applied not only to new buildings but also to substantial renovations of buildings of surface higher than 1000 m^2.

On the other hand, in the specific European context, where most buildings exist for more than 50 years and present significant problems of physical deterioration and functional and typological obsolescence, the greatest results in terms of reducing energy

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consumptions should be reached by the energetic rehabilitation of existing building heritage.

In this context, a special role is taken by historical buildings.

A classification analysis of the Italian Real Estate shows that approximately one-third of the buildings appear to be built before the middle of the last century and, among them, a substantial number has a prestigious character.

The 2002/91/UE Directive established that, Member States may decide not to set or apply the energy efficiency requirements for "*buildings and monuments officially protected as part of a designated environment or because of their special architectural or historic merit, where compliance with the requirements would unacceptably alter their character or appearance*". This seems to mean that the historical buildings can't be automatically excluded from the efficiency goals regulating energetic rehabilitation of existing buildings, but require a particular type of approach which takes into account not only the most recent laws and regulations on energetic performances, but which also refers to the theories concerning the conservation of historical buildings, as cultural assets characterized by typical peculiarities of a certain place and time.

The Italian legislative situation had a significant evolution in this specific area, and this highlights the complex and difficult approach of the legislator towards the historical building heritage.

In fact, if the 192/2005 DLgs, implementing the EPBD, had completely excluded from the intervention area the historical buildings, the 311/2006 Dlgs, amending and supplementing the previous one, calls back into play the historical buildings by limiting the exclusion to cases in which the respect of requirements would imply an unacceptable alteration of their character or aspect with particular reference to the historical or artistic characteristics [1].

It means that, in buildings of this type, the rehabilitation works should never be in conflict with the preservation of the peculiarities of the organism itself.

This approach, created in order to direct toward of energetic rehabilitation works "compatible" with the historical context, has often

been interpreted as a derogation or even worse as a "discount" in relation to normative standards.

2. Conservation and rehabilitation of historical buildings

Operate on the built heritage, within the consolidated city, involves many difficulties.

The Venice Charter (1964), which represents an essential reference tool for the implementation of a proper policy of protection, claims that “The conservation of monuments is always facilitated by their utilization in functions useful for the society”, as long as this does not involve an alteration on building distribution and aspect .

In Architecture, in particular, “a property is not an asset, if it is not usable”, as written by Amedeo Bellini [2], stating that there is no point in an architectural asset protected and preserved as an abstraction and not used for the fruition.

So the preservation of an historical building is closely linked to its fruition.

The 42/2004 D.Lgs, in the article 6, specifies that the promotion of cultural heritage “is to exercise the functions and to regulate the activities aimed at promoting the knowledge of the cultural heritage and to ensure the best conditions for the use and for public fruition of the heritage itself, in order to promote the development of culture”.

It means that to make usable and so to valorise an historical building we need to ensure the best conditions for its use, and this can’t ignore the comfort.

The man, to carry out any activity within a confined space, needs to be ensured of the control of some parameters (air temperature, relative humidity, air quality, lighting level).

Namely, we have to verify the specific conditions that enable them to persist in that environment no manifesting discomfort. The control of these parameters requires, in most of the cases, the use of a plant.

The plants currently available on the market are capable to ensure excellent comfort conditions in every type of building, regardless of the climate zone in which it is located.

This, however, involves costs, energetic, economic and in terms of emissions, that can no longer be sustained. Therefore, it becomes essential to act both on the building, to improve its performances, reducing thermal loads in winter and summer, and on air conditioning systems within it, to improve their efficiency.

In this context, energetic rehabilitation should represent an essential tool to achieve the objectives of protection of the asset.
Instead, they are often interpreted as a critical point between opposing needs: technological innovation on the one hand, conservation on the other hand.

The fruition of an historical building in the best conditions of comfort and energy efficiency should not be read merely as a legal requirement, but it is an essential part of its conservation and valorisation.

3. Compatibility of energetic rehabilitation works into historical contexts

The approach to be used in the energetic rehabilitation project must depend above all on the type of building on which we go to act.

In Italy, there are different levels of constraint, in relation to the prestigious characteristics of the buildings.

There are, in fact, protected buildings, in accordance with the "Code of Cultural Heritage and Landscape" 42/2004 D.Lgs. (already 1089/39 law), and there are buildings considered of historical prestigious, through specific tools established by municipal, regional and state administrations.

Any design wanted to be realized on protected buildings is subject to authorization by the Superintendence.

This represents perhaps the most complex aspect, causing in many cases a dramatic situation of immobility, in which there has been a tendency to act on these buildings only in case of emergency.

For these reasons, the buildings and the historical centres continue to be excluded from the processes of technological and energetic improvement.

Instead, it becomes necessary to act in a systematic manner, and not an episodic one, to promote the preservation and the valorisation of buildings and in general of historical contexts.

This, now, can't be separated from energetic aspects, and in particular from the need to reduce the energy requirement.

It is important, however, to identify the most suitable orientation.

A prescriptive approach, for example, based on the satisfaction of specific parameters, does not fit to the rehabilitation of historical buildings, characterized by a significant degree of singularity.

It's definitely preferable a performance approach, that leaves the designer the "sensitivity" to identify the planning solutions suitable to achieve the level of comfort and energy performance expected.

The energetic rehabilitation design can't disregard a knowledge and understanding of historic architecture lexicon.

The choice of technologies and materials is particularly complex, aimed, on the one hand, to achieve the legislative standards and, on the other, to the integration with the context in which it is going to be fit.

In most cases, during the work on an historical building, it can't be modified in its external portions.

This inevitably leads to a situation of compromise, in which the solution to be taken is not always the best from the point of view of the energy performances achievable, but the most compatible with the pre-existing building structure.

The need to preserve the stylistic features existing, in fact, determines not negligible restrictions.

Regarding, for example, thermal insulation of the building envelope, in most cases the only viable solution is to insulate walls from the inside.

This causes specific problems related both to the possible formation of interstitial condensation, and to that one of thermal bridges, that go to be discussed and investigated in detail, to avoid the proposed solution to be worse than the disease which caused it.

4 The importance of the energy audit

In order to identify the most appropriate technological solutions on the building envelope and on the plants, it's always preferable to start from an accurate energy audit.

This is particularly true for the historical buildings that, because of their degree of uniqueness, do not lend themselves to solutions "pre-packaged in advance".

The energy audit allows to obtain a deep knowledge of the energetic behaviour of the building-plant system under consideration, in order to identify the most effective interventions to improve the performance.

For historic architecture, during the audit is appropriate to conduct a detailed study of the structures and the different construction phases, in order to detect criticalities and the greatest dispersion points.

The audit must be finalized also to establish the level of technological integration required for interventions.

Integration must be evaluated, at the different scales, from the technological, typological and perceptive point of view [3].

In function of the type of constraint that involves the building, will be identified technological solutions presenting a total or at least partial type of integration with the building and with the context.

The selection will therefore be made not only in function of the energy performance achievable, but also in relation with the level of technological integration required.

The project choices should still result from an interdisciplinary comparison, taking into account the needs of conservation and of the peculiarities of the property on the one hand, and the objectives related to the energy performance on the other hand.

The chosen interventions should always be inspired by the criteria contained in the Charter of Restoration of Venice:

- Minimal invasivity
- compatibility

- distinguishability
- reversibility

It's appropriate to provide a final phase of energetic and environmental monitoring, which should be permanent, in order not only to evaluate the effectiveness of the proposed solutions, regarding the reduction of energetic consumption and comfort, but also to follow in the time the energetic management of the building, identifying potential critical points.

5. Conclusion

Historical buildings represent a significant piece of the existing building heritage, and can't be excluded from the processes of technology and energy efficiency.

It's important to identify appropriate strategies of rehabilitation, aimed at improving energy performance in the full respect, however, of the asset's conservation objectives.

The choice design solutions must result from an accurate energy audit, through an interdisciplinary comparison that links conservation needs with those of fruition and energy efficiency.

It's always desirable the identification of innovative and original technological solutions, provided that appropriate to the level of technological integration expected, and always in the full respect of the conservation project instances.

Monitoring in the time, also allows to do evaluations on the medium and long-term effectiveness of the proposed solutions, and to structure strategies of energetic rehabilitation of historical buildings based on the results actually achieved and on the effective administration in the time.

Notes

[1] Source: IV Census of housing in 2001, classification of Italian residential buildings according to the date of construction

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Housing Policies and Urban Economics Vol. 2, No 1, (2015), pp. 49 - 64

An integrated process for buildings revitalization: the Teenergy Schools Project experience

Antonella Trombadore[1]

Sunto: Il coinvolgimento di diversi partner territoriali e scientifici presenti nell'area mediterranea, risulta essenziale per l'elaborazione di un approccio integrato interdisciplinare teso alla riqualificazione del patrimonio edilizio esistente. In particolare, TEENERGY Schools ha puntato al miglioramento dell'efficienza energetica delle scuole delineando buone pratiche, all'adozione di una strategia comune transnazionale a livello MED, un decalogo, benchmark e linee guida progettuali per colmare il divario esistente con le altre aree europee.

Parole Chiave: approccio integrato, riqualificazione energetica, efficienza energetica negli edifici, pianificazione strategica.

Abstract: The involvement of different Mediterranean territorial partners together with scientific institutions from different geographical areas has proved to be essential for the development of a multidisciplinary integrated approach for climate appropriate retrofitting scenarios in public school buildings retrofitting action. TEENERGY project aims to improve the energy efficiency process, demonstrating best practice, benchmark, common transnational strategy, closing the existing gap with other European areas.

Keyword: integrated approach, retrofitting energy action, building energy efficiency, action plan.

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1. The framework of an integrated process

The energy efficiency retrofitting action in the schools has to be set in the framework of a revitalization and regeneration process, as an intervention on both the physical environment and on the students it hosts, and the series of cultural, social and economic activities that define the 'social environment', with the main objective of improving the living/comfort conditions as well as the quality of the 'built' environment and at the same time guaranteeing its coherent adaptation to the needs of contemporary life.

The Mediterranean climate presents specific characteristics compared with Centre and North European countries; one of the most evident differences is that in North and Centre Europe heating represents the principle cause of energy consumption in public buildings while in the Med area, cooling represents the main cause.

The TEENERGY SCHOOLS project, financed by MED Programme for transnational programme of European territorial cooperation, has successfully implemented a Multi-Issues Platform as an interactive Network for the gathering of a common data base and the dissemination of best practices regarding energy efficient retrofitting and new building of secondary schools in the Mediterranean climate context http://teenergy.commpla.com.

The Project has operated from 2009 to 2011 in four countries of the Mediterranean (Italy, Spain, Cyprus and Greece) and has pointed out the lack of energy saving benchmarks targeted to south Europe climatic conditions and the low energy efficiency of existing school buildings taking into account not only heating but also cooling needs.

Based on the experimentation of energy saving techniques, integration of innovative materials and renewable energies, including passive cooling for reducing costs and consumption in the school buildings, a common Action Plan, Guidelines and 12 Pilot Projects have been developed in close collaboration between all territorial and scientific partners, the pupils of the schools throughout direct participation and the involvement of post graduate students during three international Workshops and a one week CAMPUS session.

Teenergy Schools strategy starts from these considerations and has been elaborated by Province of Lucca, with the support of 7 partners operating tin 4 MED countries.

The involvement of different Mediterranean territorial partners together with scientific institutions characterized as Province of Lucca by different geographical areas has proved to be essential for the development of a specific approach for climate appropriate retrofitting scenarios in public school buildings and particularly for:

- improving the energy efficiency in secondary existing schools buildings and demonstrate best practice benchmark for the new construction;
- adopting a common transnational Strategy at a MED level;
- closing the existing gap with other European areas.

The objectives of the TEENERGY Schools approach are to order and systematize the stages of the common process (from political will to carrying out and evaluation of the action), identify the tools and instruments to be used (technical, administrative and legal) for optimum management and development, and define the common criteria that will allow reflection on the problems and the strategies to be established in order to guarantee the success of the process.

The TEENERGY Schools projects focuses on all the actors (decision makers and technicians) involved in the design schools process and energy retrofitting actions, but particularly on the public authorities - who must set themselves up as promoters of the process - and the experts commissioned with coordinating and managing its application, aiming to contribute to the construction of an optimum framework and choice the Best Path for the rehabilitation of the existing buildings or plan and design the new ones, as well as to define the overall guidelines for action that are coherent with the specificities of each place in Mediterranean contest.

The TEENERGY project helps to improve the process, creating an ideal common framework and international network of reference that also accepts that its application will depend on the reality of each country, subject to very different, socio-cultural, political normative and technical conditioning factors.

The method can be developed partially or with differing intensities in each of its stages, but the starting point is always the need for an overall understanding of the process and the acceptance of its principles

2. Five Phases of the project

The approach of the TEENERGY Schools project is to formulate a response to the growing, trans-national demand of updating the policies and the methodologies for improving energy efficiency in school buildings in the Mediterranean Area. The aim is to close the existing gap with other European areas by focusing directly on appropriate, climate-specific criteria.

The TEENERGY approach is divided into five phases of action, according to which we can identify eight key stages or moments in the process.

	Focus	Phase	Action
1	**Political backing**	*Quality indicators of the project*	*(1.1)Definition of Quality indicators of the interventions and the performances to be reached for the Pilot Projects*
2	**Diagnosis**	*Collection of data and mapping*	*(2.1)Energy Audit* *(2.2)End user satisfaction questionnaire (qualitative)* *(2.3)Mapping of results and benchmarking)*
3	**Strategy**	*Action and evaluation methodology*	*(3.1)Action Plan* *(3.2)Target scenarios* *(3.3)Best Path*
4	**Action**	*Pilot project*	*(4.1) Concept design and architectural solution* *(4.2) Pilot project for retrofitting action and/or new building*
5	**Communication**	*Communication set and evaluation programme*	*(5.1) Communication for decision makers and end user involvement* *(5.2) Project phases and results monitoring*

Tab 1 Five Phases of the project and related actions

Focus 1 - Political backing

The process begins with the political will to act, which includes the making of the preliminary decisions required to appropriately organize and manage the rehabilitation of the existing buildings process (or plan and design the new ones): selection of building, decisions as to the nature of the actions to be carried out and the definition of the framework of governability that is, the organization of the intervention of the various agents involved in rehabilitation, and the participation of students.

Phase (1) *: Quality indicators of the project*

Action (1.1)*Definition of Quality indicators of the interventions and the performances to be reached for the Pilot Projects*:

- Energy efficiency for heating and cooling
- Efficient natural and artificial lighting
- High standard of natural ventilation in classrooms guaranteeing low CO_2 rate during the lessons
- Use of sustainable building material based on critical LCA analysis
- Bioclimatic Strategies for architectural quality and energetic efficiency in all seasons
- Correct Use and management of renewable resources: use of appropriate, cost-effective and energy-efficient technology
- Good acoustic quality inside the building
- High Outdoor Environmental Quality (microclimate)
- Good visibility and media communication to guarantee widespreading of results
- Didactical aspect of the intervention as added value of retrofitting / new construction

Focus 2 - Diagnosis

Before deciding on a strategy of intervention, it is necessary to recognize the existing conditions and establish the integrated analysis of the building, with a programme of multilevel approach.

The analysis is used as the basis for the integrated diagnosis quantitative as well as qualitative: an energy audit report on the current state of the building agreed by end users satisfaction questionnaire as social consensus with a detailed breakdown of its potentials and dysfunctions. The assessment of the energy performance of the building throughout data collection including bills, measurements and simulations.

Phase (2) *: Collection of data*

Action (2.1) *Energy Audit (quantitative analysis and evaluation)*

- Analysis of the functionality of the building
- Evaluation of the Security normative and issues related to maintenance
- Structural characteristics
- Sanitary equipment
- First definition of comfort quality

Action (2.2) *End user satisfaction questionnaire (qualitative)*

Analysis of the feedback of pupils and teachers thoughout a specific questionnaire in order to define the psico-physical aspects regarding the actual perception of indoor comfort.

Action (2.3) *Mapping of results and benchmarking*

- Benchmarking of the context
- Cost effectiveness evaluation

Focus 3 – Strategy

On the basis of the critical points of the field of action identified in the integrated diagnosis, and by means of strategic reflection that takes into consideration a series of strategic and sustainability-related issues, a series of hypotheses of action will be defined to evaluate its viability.

Once these feasible target scenario has been decided on, all actions to be carried out will be listed in order to define their strategic implementation.

Consequently a Best Path is outlined following the experiences made in the field of school building refurbishment of Prof. Mattheos Santamouris of NKUA/IASA, Prof Marco SALA of ABITA and Prof Despina Serghides of CUT.

It is designed to support the planning activities of decision makers in solving different problems using a multicriteria analysis, as a set of common evaluation criteria for Teenergy Schools. It will define a rating and weighting mechanism of all considered aspects.

The result shall be agreed on by scientific evaluation, social consensus and approved by the politicians; it will then, together with the proposed project solution and policies, implement the appropriate working instruments to undertake them.

Phase 3. *Action and evaluation methodology*

Action (3.1) *Action Plan*
Action (3.2) *Target scenarios*
Action (3.1) *Best Path*

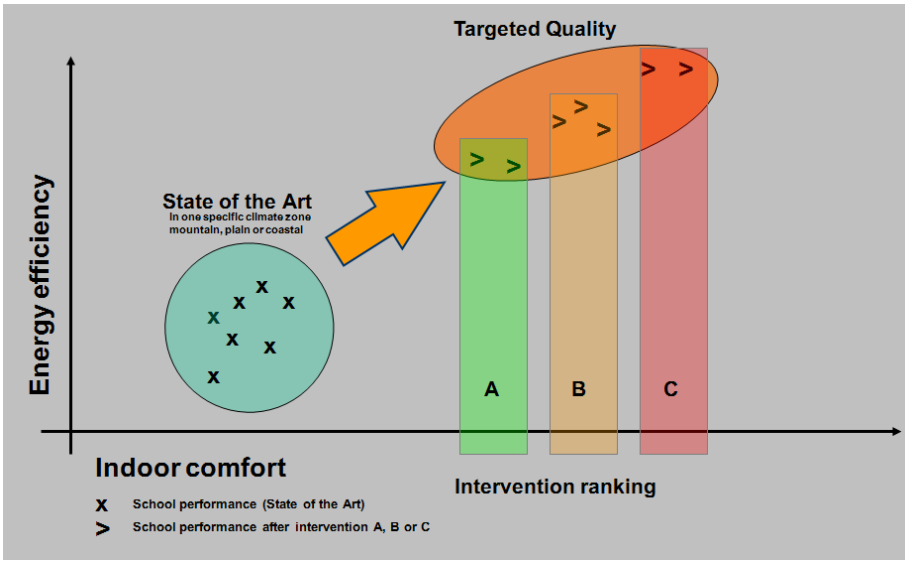

Fig1 Teenergy Schools Protocol – Quality Level of Retrofitting

Focus 4 – Action

This phase includes carrying out the actions foreseen in the action plan as specific projects scenarios for buildings, and complementary measures of a social, economic or environmental nature. TEENEGY Guide for High energy efficient schools in the Mediterranean will be applied.

Phase 4. *Pilot Project*

Action (4.1) *Concept design and architectural solution*
Action (4.2) *Pilot project for retrofitting action and/or new building design*

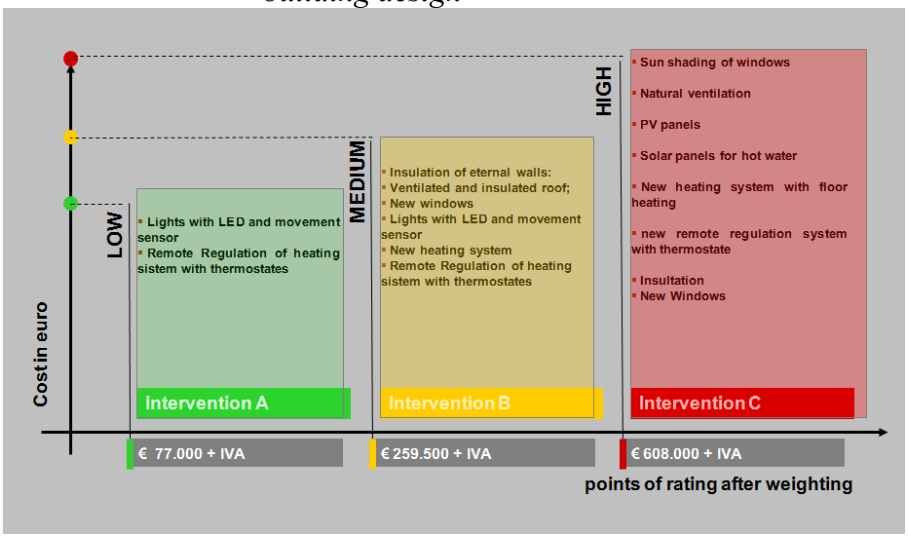

Fig2 Cost effectiveness examples of the three interventions

Focus 5 – Communication and Monitoring

The communication and promotion is mainly developed throughout the ICT Platform and media presence, itinerant exposition of the Pilot Projects as a result of the TEENERGY Schools Guidelines for Policy making.

The phase of continual evaluation of the actions will begin while they are carried out but will also continue once they are completed. It has to monitor the degree of compliance with the objectives established in the beginning. In the event of evidence that the actions do not produce the desired results or that the conditions of evolution are not as originally expected, it will be necessary to return to the strategic reflection phase or even, if the conditions of the building are seen to have evolved, to the diagnosis phase.

Phase 5 *Communication set and evaluation programme*

Action (5.1) *Communication for decision makers and end user involvement*

Action (5.2) *Project phases and results monitoring*

3. Teenergy Schools Decalogue for the Mediterranean Area

The added value of TEENERGY Schools lays within its implementation of the process and the constant exchange of the common results - from the definition of the quality indicators to the elaboration of an adequate Energy Audit for the Partnership, the evaluation of the data mapping and benchmarking towards the elaboration of 12 innovative Pilot Projects. In fact, the project aims at providing the local administrators with useful decision support instrument to suggest a Best Path to follow in the retrofitting action and revitalization of existing school building, or what design criteria should be considered when a new school building is to be planned, targeting low energy consumption approach and sustainability awareness.

There is a need for effective tools helping to decide by combining scientific, normative and quantitative aspects such as energy efficiency, with human perception and subjective, qualitative aspects such as indoor comfort and psycho-physical wellness as already mentioned. Above all, the Mediterranean context represents the reference point for a new interpretation of a climate-adapted standard for sustainable building.

TEENERGY Schools has developed a Decalogue to meet the needs for the providing a common Method of decisional support involving stakeholders to fulfill the challenge of improving the school environment of education for the next generation of pupils, by starting today. theTEENERGY Schools Decalogue aims at giving the basic indications for the implementation of existing schools retrofitting action a process. It is targeted toall the actors, but particularly to the public authorities—who must set themselves up as promoters of the process—and the scientific experts in charge with the coordination and the management of its application.

The Decalogue aims to illustrate the Best Path towards an appropriate energy efficient retrofitting of school buildings, going beyond the usual isolated interventions and taking into account new aspects such as bio-climatic technologies: solar architecture, passive cooling, intelligent windows for natural ventilation, cool or green roofs and the use of materials from natural local resources with positive LCA evaluation, energy efficient facades including sun shading.

Step 1 Setting the targets

Definition of the Quality objectives to be reached in the retrofitting of existing schools and for the construction of new school buildings aiming at energetic efficiency and good indoor climate in all seasons

- High Energy efficiency for heating and cooling
- Efficient natural and artificial lighting
- high standard of natural ventilation in classrooms guaranteeing low CO_2 rate during the lessons ensuring good studyconditions
- Use of sustainable building material based on critical LCA analysis
- Bioclimatic Strategies for energetic efficiency and good indoor climate in all seasons using Passive cooling (Ground cooling/Night cooling) Sun shading and Natural Ventilation systems against Summer overheating
- correct Use and management of renewable resources: use of appropriate, cost- and energy-efficient technology

- Acoustic quality inside the building for good audio comfort in the classrooms
- highoutdoor Environmental Quality (outside microclimate)
- Good visibility and media communication to guarantee wide spreading of results
- Didactical aspect of the intervention as added value of retrofitting / new construction for the active involvement of pupils(change of mindset/behavior)

Step 2 Energy Audit

Checking the State of Art of the building and the energy performance of the envelope and energy consumption on HVAC (heating, Ventilation and Air conditioning) systems throughout data collection including bills, measurements and software simulations:

- energetic behavior of the building taking into account the real consumption, the simulations (expressed in $kWh/y/m^3$)
- thermographicanaylis for the detection of heat losses for efficient problem solving
- Analysis of the functionality, occupancy ($pupils/m^2$), use and costs for the running of the building (euro/pupil/ year)
- Evaluation of the Security norms
- Evaluation of Level of maintenance
- Structural characteristics, anti-seismic aspects
- Sanitaryequipment

Step 3 End user feed back questionnaire

Involvement of the students and end user to improve their awareness

- Evaluation of indoor quality Analysis of the feedback of pupils and teachers throughout a specific (anonymous) Questionnaire in order to define the psycho-physical aspects regarding the actual perception of indoor comfort by the end users
- Comparison between assessed performances of the e school building, the monitored use and occupancy and the satisfaction of the end users of the building in order to obtain a critical view of the actual situation.

Step 4 Mapping and Evaluation

Analysis and mapping the results with the support of adequate tool for the homogenization of the data at an appropriated decision scale (Municipality context, Provincial/Regional/National/ International) and Analysis and graphical visualization of the collected datafrom the Energy Audit, the End User feedback Interpretation and graphical visualization of the collected data from the Energy Audit and the End User feedback

- Evaluation of the gap between State of Art and target,
- Analysis of the critical point where the data of energy performances of the school buildings are below the average
- Mapping and Positioning of the results in a larger context (regional, national, European) taking into account specific 3 climatic sub areas: coast, mountain and plain.

Step 5 Benchmarking in the context

Comparison of the monitored school buildings to obtain a performance- ranking for the definition of preferences: which school building need to be refurbished first

- Analysis throughout multi issue criteria: what are the main criteria?
- Definition of thresholds of energy performance, indoor quality level, available budget
- Definition of acceptablelimits
- the three main factors harmonizing with technical aspects factor will be given a critical weighting in order to elaborate a ranking of the interventions.

Step 6 BEST PATH Methodology

The Best Path Methodology aims at defining the most adapted solution in terms of economical technical and human aspects following the elaborated quality criteria as indicated above. on administrative and political level a critical weighting of the importance of each of the following four main objective must be considered:

a) *energy efficiency*
b) *indoor comfort*
c) *quality of communication of the project,*
d) *technical aspects (for instance obligatory issues such as anti-seismic norms, fire- security, sanitary aspects)*

Obviously each refurbishment or new construction of a school has an important communication value for the local administration, therefore the quality of the communication has to be considered an important issue. Building Sustainable Schools in the Mediterranean Area with bioclimatic principles in an energy efficient, socially and politically participated approach has a high value in terms of innovation. Each one of these aspects will have a weight expressed in % following the strategic decisions of each single administration.

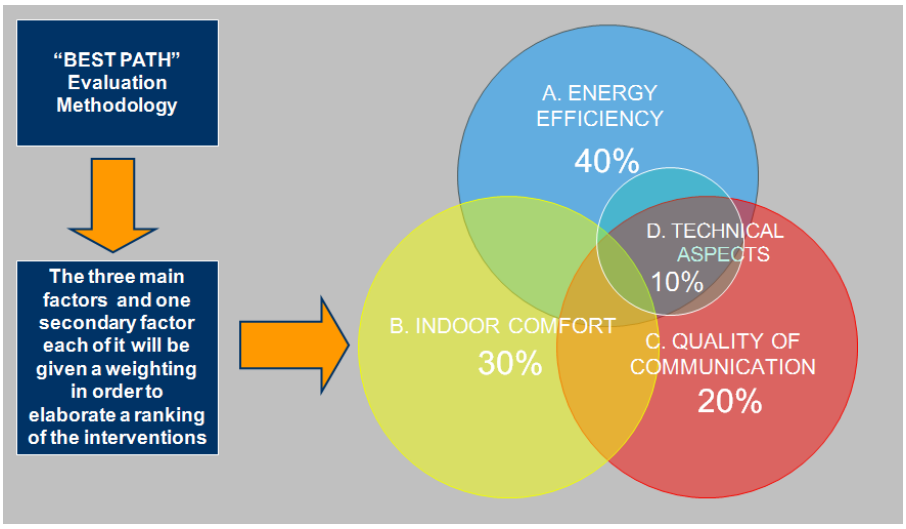

Fig3 Teenergy Schools Protocol - Best Path evaluation

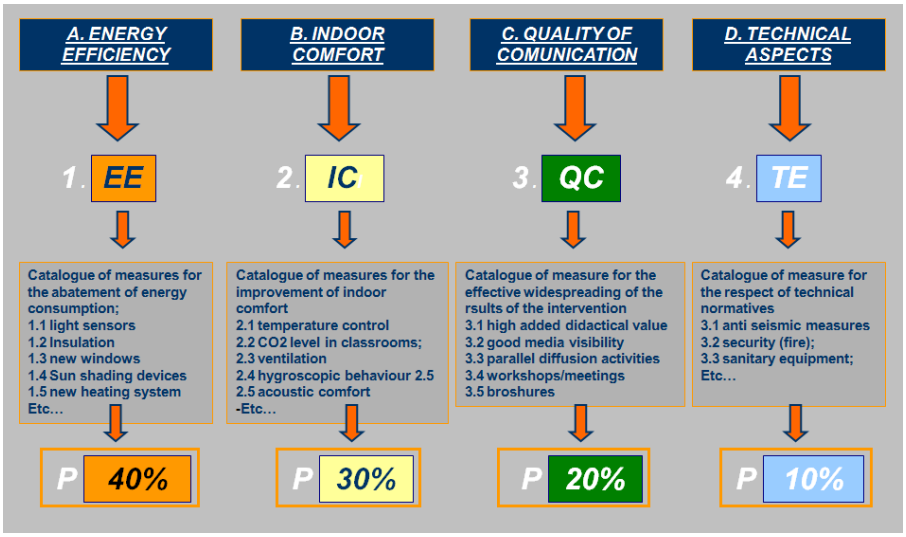

Fig4Teenergy Schools Protocol - Evaluation Criteria and Weighting

Step 7 **Interdisciplinary involvement in Planning Process**

Involving all the stakeholders of the school environment: pupils, parents and teachers, driven by the initiative of the administrational responsible engaged in a transparent, participatory round table with the help of qualified technicians: the project bases for new schools or the refurbishment strategies for existing schools has to be elaborated in an interactive and interdisciplinary process involving all parts, taking into account the above mentioned ranking of priorities following the Best Path integrating previous analysis such as Energy Audit and the End User Satisfaction.

Step 8 **Concept Design Implementation of Architectural Solutions /Retrofitting strategies**

The concept Design Solutions will be based on sustainable, energy efficient building technologies taking into account bio-climatical aspects in order to respond adequately in each single micro-climate area:

- high Indoor comfort is targeted by improving thermal, acoustic and visual comfort in the classrooms
- at least three scenarios with low medium and high outputs proportioned to the dedicated investment will be elaborated

Step 9 **Cost benefit evaluation**

Critical choice of the most suitable solution in terms of energy efficiency, satisfaction of the end users, economic context and communicational aspects for the local administrators political targets.

Step 10 **Diffusion and Communication of the results**

Constant monitoring of the feedback within the participated process:

- Promotion of the results within the context of a Pilot Project that has a didactical vocation
- Networking of similar experiences in order to promote wide speading of the initiatives and guarantee efficient research results in collaboration with scientific institutions and exponents of the building industry.

4. Concept Design Guidelines

A project for sustainable new school building or the retrofitting of schools in the Mediterranean Area must consider, as key element, the necessity of combining the research for a cost-effective insulation for the improvement of heating in the Winter period, with the Mediterranean climate –specific necessity of ensuring, during the Summer period passive cooling and a high ventilation rate to guarantee good indoor conditions. In fact, Secondary High schools are run until the end of June when temperatures have already risen substantially. Mediterranean buildings are traditionally built on a simple thermal mass concept, which helps to reduce the great temperature differences during day/night in the Summer time. Reintroduce thermal mass in the modern school building is to be reconsidered as a simple, but very effective, non energy intensive method to ensure comfort.

The experience of Teenergy Schools after having developed a Common Implementation Methodology, what pragmatic technical prescriptions can be given regarding energy efficiency in the

Mediterranean school context? In the following pages a short Guidelines are presented to implement the Decalogue approach as a pragmatic technical indications to allow higher energy efficiency in the Mediterranean schools buildings.

Analyzing the appropriated Architectural Solution elaborated during the Concept Design of the 12 innovative Pilot Projects we should take advice about developing an energy strategy, designing and specifying the fabric, services and controls systems, as tangible results and feasible propositions developed with the Partnerships local administrators.

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Public space and contemporary city: the places of transformation

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Sunto: Nel paesaggio culturale urbano, il cantiere è il luogo della trasformazione e dei conflitti, ma anche il luogo della produttività e dell'attrattività di risorse, della temporaneità e della simultaneità.
I concetti di Identità e Integrazione, Comunicazione e Partecipazione molto bene interpretano il processo dinamico di mutamento e conversione non solo funzionale ma anche percettivo-fruitivo di questi spazi in attesa di identità, bisognosi di spinte creative e pratiche di riappropriazione.

Parole Chiave: Integrazione, Comunicazione, Identità, Partecipazione, Cantiere Sostenibile

Abstract: In the urban cultural landscape, the construction site is both the place of transformation and conflict, but also of productivity and the attractiveness of resources.
The concepts of Identity and Integration, Communication and Participation effectively interpret the dynamic process of improvement and conversion, which is not only functional, but also perceptive-fruitive of these open space, waiting to identity and needy of creative incentives and practices of re-appropriation.

Keyword: Integration, Communication, Identity, Participation, Sustainable Construction Site

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1. From the regenerative development to the city-wide approach (AV)

The human being has always changed the living places, sometimes thanks to a hard fight against nature, in order to let the environment be suited to own needs, violating biological rules and affirming a technological supremacy. The city is the place of such changes, but it is also the origin place of growth, the cradle of transformation and innovation, the site of experimentation and rich intellectual vitality. However, there cannot be technological innovation without any mental innovation and this necessarily turns into behaviour innovation; but, the transformation must happen in a balance of energies and the approach must become cradle-to-cradle.

The city we need "*is energy efficient, low-carbon and increasingly reliant on renewable energy sources, by replenishing the resources it consumes, and by recycling, re-using, and reducing waste. The regenerative city uses water, land and energy in a coordinated manner and in harmony with its surrounding hinterland, contributing to resilience*"[1].

It is a Regenerative Development, able to self-sustain in a long period, but above all to revive the ancient wit of human being's symbiotic evolution with his/her own habitat, regenerating physical places up to create symbiotic and identity links again [13].

From the architectural point of view, the issue can be faced according to both an eco-cultural and an eco-aesthetical approach.

Through the concept of bioregion, the eco-cultural approach underlines the duty to protect diversities of human cultures, which in their natural evolution have built and substantiated the values coming from the man-man and man-nature relationship [11]. In the contemporary city, such diversities must submit to mechanisms of a complex, often-conflictual development.

The socio-aesthetic approach, instead, leads the architectonic debate towards the sphere of communitary, metaphoric and paradigmatic values, that are far from the logics of energy efficiency and technological innovation, but idealize an ecologically and

environmentally friendly attitude, as an antidote to modernism and materialism [6].

Transformation in both approaches is created by the renovation of the social behaviour models, recognizing that cultural diversity is a value and not a danger, and actively protect the cultural heritage as a historic memory and a creative potentiality that is shared by them.

Contemporarily, they also recognize the unifying role of the *Genius Loci* to environmental heritage, in a Platonic (multiplicity in unitary) and Cartesian (mechanistic) view of nature.

Therefore, the city must be *Inclusive* for all inhabitants to take part in the social and cultural features of city life.

In such a context, the planning process, based on development and improvement of socio-cultural, environmental and economic relationships/synergies, acquires connotations of transparency, participation and flexibility, according to social rules, ecological principles and efficiency criteria [1]. That is neither for trend, nor to satisfy effective slogans, nor because they are a prestigious status and worth indicator, but for conviction, awareness and knowledge. Nevertheless, you need courage, boldness and vision ability of future setting. The construction site represents an opportunity to orientate such a vision towards a culture of regenerative and inclusive transformation.

2. Collective, shared, participated. Public space and communication strategies (AC)

"Participation" and "Sharing" are likely thought categories that represent better the horizon of the contemporary imaginary. It can be underlined that, by now, a meaningful – cultural more than economic – passage is in progress from several parts. So our society is abandoning the dimension of *knowledge economy*, enthusiastic meaning that the '90s had brought with themselves, to support certainly the new idea of a *sharing economy*, that is an economy whose mechanisms are articulated around the new concept of

"sharing", which seems to characterize, more and more evidently, choices, strategies, individual and collective behaviours.

There is something more. In an increasing rapidity our world, always organized around the concept of ownership, is moving towards forms of organization rotating around the concept of "accessibility" – in the wide and cultured meaning delineated by Jeremy Rifkin [14] - with significant changes in the models of economic and social organization.

Such an important change has influenced each ambit of the civil life and it has created meaningful changes in both common perception, and interpersonal relationships, and sense of membership and identity.

If we think about the city as a collective way of "thinking the space", this is doubtless the place where the new condition is evident, particularly if we pay our attention to those spaces situated outside the private sphere that, nevertheless, determine the living quality in a meaningful way and that are moulded and mouldable by uses, habits, as well as daily conflicts.

In their whole, these spaces delineate the complex reality of the urban scene, in a continuous and unceasing change, a scene where the ephemeral dimension of transience is the protagonist and the new category of "*impermanenza*" finds its most convincing representation. In other words, it is the "public space" seen through the whole of urban practices and common uses, where communication strategies, information and data sharing are more important, day by day.

Common, collective, shared, associative, participated are the adjectives that today better express the plural and varied dimension of the public space. Nowadays, reflecting on the destiny of such a space, often waiting for an identity, means questioning about the meaning and mechanisms of the new "actions" of the urban scene and recognizing the role that communication and collective participation play in them. Above all, it means reflecting on the meaning of the public space in terms of "sharing opportunity" to be used for a common growth of the citizenship sense, through which creating virtuous creative thrusts.

This issue is offered to our attention as researchers and designers as a problematic question to be investigated on a theoretic level, in order to look for a redefinition, in such a process, of the architect's role and his/her dimension as a solo author[2]; on a practical level, in order to look for adequate strategies to answer efficaciously to a more and more increasing need of quality, beauty and participation in the dimension of the public space.

The International context offers a wide casuistry of "*concrete utopias testifying the different ways with which the destine of awful and degraded spaces can be changed positively, both reconfiguring them through more or less complex planning paths, and encouraging new forms of management, anyway putting them within a renewed value system"* [8].

It emerges an attitude to intervene not to "occupy space", but to create "relationships of urban movement" through a planning action within the city, trying to revalue the aesthetical potentiality of spaces, which seem not to have it.

In such a sense, an excellent case, we must reflect on, is represented by the frequent presence of those wide areas of construction site, as wounds in the urban tissue of the contemporary city. These change its asset, its fluxes, and its perceptive landscapes for a period of time that sometimes cannot be foreseen. They are places considered as "awful" and without any identity.

No place, more than a construction site, can interpret the dimension of transience and temporariness, generally perceived as a perceptive degradation. No place better than a construction site can be interpreted as an occasion to test useful strategies of intervention in the management of the public space: working nearby, cultivating imaginaries, activating the pleasure dimension, reinterpreting the sense of places, through a new assignment of sense to their experience. These are all actions that can find in the construction site management their own expression, able to increase their sustainability in terms of collective experience.

The aim should be that one to activate communication and enjoyment dynamics, able to let the construction site interpret not as a *shape* but as an event. An event we can participate to, finalizing its

experience, also in its negative aspects, considering a collective advantage. Activating devices, able to let the construction site live as a possible experience, and accessible in some way, increasing the sense of familiarity and participation with what happens beyond the enclosure, cancelling the sense of exclusion and lack that is accompanied to it, is one of the strategies that is possible to carry out, especially if you consider the potential poetical strength closed in the construction site, imagined as an incredible "machine with a fantastic reaction", a contemporary and a little bit surreal version of the "festival machines" of the baroque city.

In such a sense, it is possible to interpret the construction site as a "close" space in an affectionate sense of the word, within which producing further ephemeral actions turned into spatial and figurative disposals, mediated through opportune *storytelling* strategies by sight, storytelling, involvement of the one who lives that space and works there. Therefore, the construction site shows to be able to cultivate imaginaries and activate those actions of poetical disorientation, creating paths of either rediscovery or re-appropriation of the places.

Not lastly we must consider that, as it happened for the fittings of the "festival machines", offered as a precious occasion of experimentation for the architectural language, also the contemporary construction site in its ineluctable ephemeral condition could be offered as an occasion of experimentation for those who work in reinventing the image of the contemporary city and reconfiguring urban landscapes.

The impact of some "inventions" and the figurative result of planning actions in the context of the urban tissue could be judged and shared by the society, in the advantageous condition of the provisional fittings, starting a new phase of participation to the choices about the destiny of the city and its image.

They are operations aimed at reinventing the construction site, simply putting it within a value system, which seems not to be of its interest, imagining communication and participation ways able to interpret its strength of impact in terms of perceptive sustainability, in order to make it really "accessible" in the sense that it is perceived as

a "possible experience" in the identity dynamics of an urban community.

3. Identity, Integration and Cittadinarietà (AV)

In the cultural urban landscape, Identity, Integration, Communication and Participation are passwords in order to manage to recognize the construction site as a place of transformation, productivity and resource attractiveness, rather than conflicts and creation of negative impacts.

From a social point of view, even if in its temporariness condition, a construction site risks to be considered as a "Third Landscape" [3] as a place that is out of the circuits of use from citizens for a determinate (often not short) period of time. Temporarily it is "abandoned" by the citizen, who is uninterested in it and undergoes it as a place denied to his/her use, a generator of powders, noises, vibrations: a social cost!

Effectively, the construction site is a complex production place, which produces significant and diversified impacts (on locals and workers), especially when it is located in densely populated urban areas. Particularly, these areas live in such a precarious balance that an only stressful factor creates chaos and disorder, and the citizen, busy to face stressful conditions daily, ends to be uninterested in what happens in his/her own city.

The citizen's uninterest derives from a passive acceptance of transformation in progress. In the economic system based on redditivity and finalization to a profit also in using the public space, it leads not to consider the construction site as an opportunity of growth and a development instrument of the city, but in its limited dimension of money investment (meaningful dimension only for a close group of stakeholders).

"Growth and development express the dynamics of an Economic System as an accumulation." that is no overlapping, but it is opposed to the "dynamics of a Biologic System as a transformation"[3].

The construction site must be the place of a participated and shared transformation, so that, in the future vision of the urban setting, the transformation was not only the change of the physical area, but also that one of the way to use it.

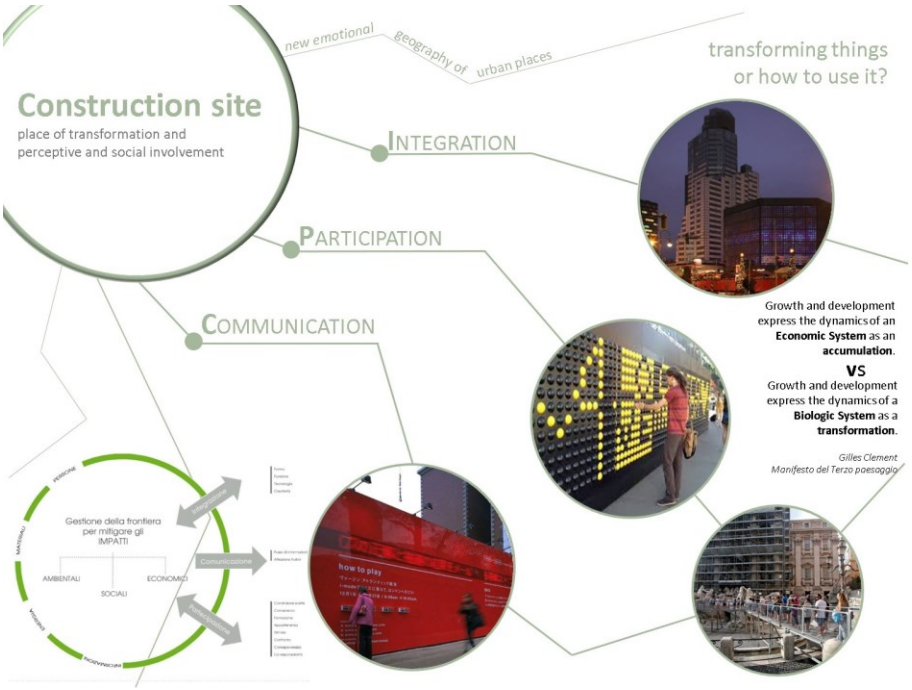

Fig. 1 – Construction Site: a place of transformation and perceptive and social involvement

Therefore, it is necessary to influence thought and behaviour, the way you can use, before influencing the way you can build. The concepts of Integration and Participation interpret the dynamic process of change and conversion properly, not only functional, but also perceptive-enjoyable of these areas, waiting for their own identity, needing creative impulses and practises of re-appropriation. In fact, the construction site is also the place of perceptive and social involvement. The concept of creativity is linked with the concept of integration. The union between shape-function corresponds to the binomial technology-design. The Technological Culture, above all

concerning the aspects properly linked with the living sphere, gives a range of instruments, principles and rules to run the modern man's habitat from the design point of view, without missing the importance of the design "here" and "now", rather than "anywhere" and "at any time". The contemporary approach to the eco-oriented design, also in the phase of the construction site, strongly links the concept of wellness to the principle of the "environmentally friendly attitude", as a good assumption, on which you must explicit the environmental implications of each constructive choice and reconnect the socio-cultural background, not only the planning choices, but also the implementation manners of the design should be based on, to the eco-compatibility sphere. Therefore, the construction site can mediate conflicts and try to find the best alternative, which valorises identities, which interprets real needs, which fits to the environmental conditions and allows reversible choices.

An urban construction site is also the place of temporariness and simultaneity. Relating to the temporariness category, the quality of urban life is influenced by the presence of construction sites that cyclically open and close. The temporariness factor, in some case, is absolutely relative. For instance, think about the construction site of the Underground station of Naples in Piazza Municipio (Municipio Square), concerning the urban setting since 1998.

Such an invasive and lasting presence has determined a series of alterations to mobility, enjoyment of the public space, local micro-economy made by small business.

The cost, linked with the "disturbing" element of regular proceeding of urban activities, can be associated to the vision of the construction site as a "temporary activator of cultural flourishing" (above all for historical contexts and Cultural Heritage).

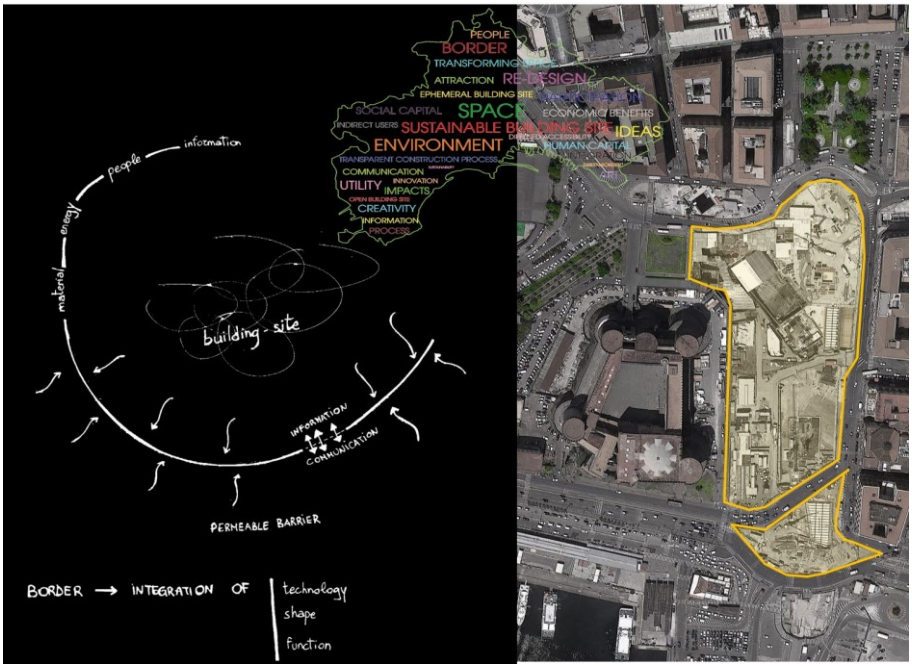

Fig. 2 – The Construction site of Municipio Square

The operators in the sector are more and more often stimulated by public contracting to design the construction site phase, not only implementing measurements of mitigation for the environmental impacts, but particularly endowing the fence of the construction site (as an element of border) with collateral frames, able to start mechanisms of participation and/or multimedia innovative systems, functional to the creation of flows of communication. And since "*our society is constructed around flows: flows of capital, flows of information, flows of technology, flows of organizational interaction, flows of images, sounds and symbols*" [2] the construction site becomes the space of flows.

In the network society, flows of communication are global processes, where the categories of space and time are linked with the concept of simultaneity, that is very often associated to that one of hypermobility, in a dualism, where the need of belonging to a global network is flanked to and contrasted by the need not to lose your own local identity [15].

Such an "added service" of the construction site of new generation is very useful, above all in case of interventions concerning places and /or monuments, which cannot be banned to the use during the working phase.

In that period, generally limited, the end-users of urban spaces or monuments perceive the construction site as an *Architectural Promenade*, as a School Construction Site, as a Multimedia Construction Site, collecting and benefiting of flows of information, which create awareness, both of the future setting, that is delineating in the construction site, and of a series of data and information, that can be useful to enjoy the places.

These typologies of construction sites have got an *added value*: they revitalize the interest for the context and the transformation with a contemporaneity sap.

The construction site must be the place of communication, attractive for end-users and rich for the flow of information that creates and communicates to its end-users, not so much to the direct ones (workers and technicians), but to the indirect ones (residential citizens and/or employers, tourists,…), who physically and perceptively interact with this place of transformation that, otherwise, becomes a place belonging to the "weak geography" of the city.

Yet, the weak areas of the big cities themselves suggest a way to give a creative life to the construction sites, which are transformed, for instance, into art places.

"*There is an unusual place in the city where art is open to everyone … and it is not a museum or a gallery"*[4].

It is a construction site!

Fig. 3 – Art and lighting on fence

In order to remain within the Neapolitan ambit, the cultural Association "La Bottega"[5], that represents a group of artists, who want to spread art among people with their own work, promoted the initiative of "Art construction sites" some years ago, a design that foresees to carry out paintings, as a result of an artistic experimentation on tarpaulins, put on the safety nets of the city roadwork. The design, proposed to the Municipality as non-profit, has had the aim to improve the art-citizen relationship and change the roadwork from "places of discomfort" to "places of outdoor art".

It is an attempt to make *Customer Satisfaction* and create sharing and consent, as from the social point of view, sharing choices leads to justify and accept costs. Knowledge of what is happening and what will be motivates and orientates the sense of *Cittadinarietà*, that is the citizen's awareness to be part of a community, with which he/she evolves, for which he/she behaves "well" and in which he/she must be an active, unique, essential, but not indispensable part.

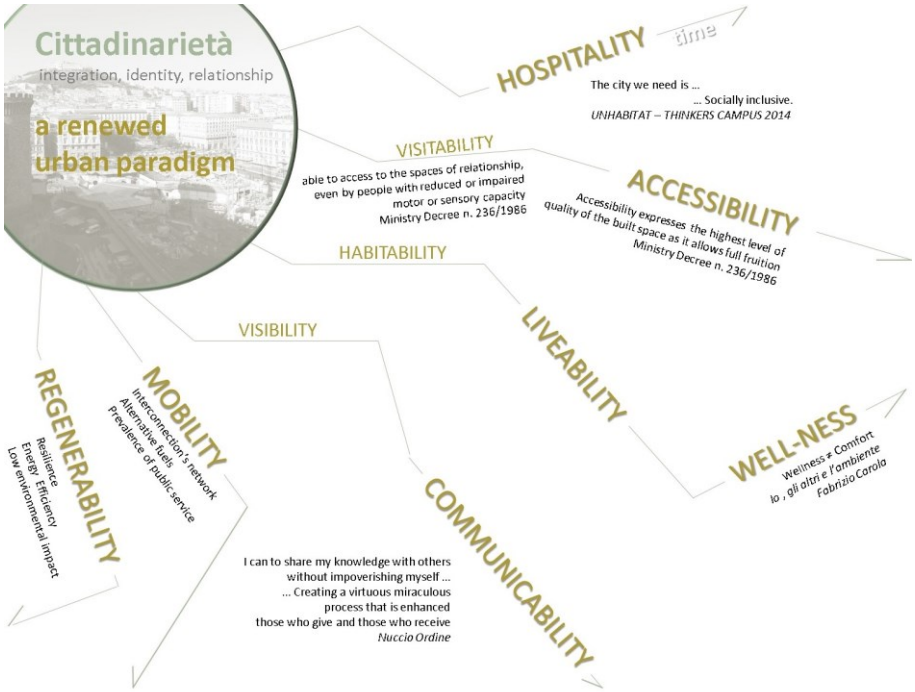

Fig. 4 – The multidimensional idea of *Cittadinarietà*

The document of preparation for Habitat III: "The city we need", indicates the need to create a sense of identity and belonging, awareness and shared responsibility, comparison and training of the social capital, on which *Cittadinarietà* is based and from which it takes vital sap, that should be elected as an "n dimension" of the urban sustainability.

Therefore, "*The city we need is the site of knowledge production and dissemination. It fosters the generation of knowledge through efficient communication and accessible and relevant sources of information*"[6].

3. Social involvement in the urban construction site (FM)

The social involvement in a construction site has a relevant effect on the life of a community. It reminds the emblematic medieval cooperation of citizens to the construction of a cathedral[7].

The psychological aspects related to social identification with a construction site, which is a state of expectation for a new aspect of a place, is a relevant factor of urban life, especially considering that proceeding of construction phases are on the contrary often perceived as an obstacle to social liveability.

In this perspective, the influence of perceptive strategies is relevant. In this perspective, the study of how people perceive the phases of the construction site becomes itself a new project, monitoring a systematic and procedural dynamic of human perception in relation to the construction site.

The study must provide an articulated social survey of “what you used to see”, "what now you see" and “what you imagine you will see”[8] [9]. Possible strategies are diversified: temporal acceleration of works, temporary pauses in which the construction site is partly opened, or temporal alternation of steps in which single portions of construction site is partly opened or at least perceivable. The goal is that people could recognize the site of the construction site as an own one. In addition, it is possible on a perceptive relation basis[9] [4].

So, the consequences of the construction site on urban social context aren’t only the outcomes that were the ones intended by project, they belong to physical, social, and economic urban asset too.

Moreover, appropriate connections between people and places, natural environment and built environment can influence in a relevant way development economics, creating unexpected benefits.

Urban context are so marked by construction sites because there are many connections among architecture, landscape and identity, which could be forecasted just before beginning to build.

The key issue is trying to preserve the integrity of a place through different simulations of what will happen during different phases of works. Moreover, a different project, oriented to the construction phase, must be done with compatibility to the design of the place [16].

Survey organization collecting data from citizens should apply on the perceptive plane and on the fruitive one, analysing the differences in the time related to works.

Therefore, the aim is the identification of actions designed to reduce the energy, environmental and visual impact, through the integration of innovative technologies that might help to make the construction site as a temporary architecture.

Fig. 5 – Perceptive and fruitive strategies for construction sites

4. Innovative fence systems: best practice for integration, communication and participation strategies (LM)

A really effective method to increase the positive perception of the urban transformation and to go beyond the idea of a construction site as an obstacle, is represented by the realization of measures aiming at smoothing out all the inconveniences caused by the presence of a construction site and the explication of how and what you are realizing [5].

Generally, the fence system of a construction site represents the element that shows the separation and the inconvenience between the inner and outer space. A very innovative method to interest and

inform the population about current changes and the history of the building during its restoration, reclamation and reutilization is represented by the employment of fence systems to decorate and describe the construction site and the realization of equipment to value the interventions of transformation [10].

The activities developed in the field of promotion and communication of a construction site are becoming increasingly numerous and unbelievably successful. The great increase in demand for work in this field demonstrated this situation.

Differently from what happens in Italy, this kind of initiatives has already stabilized for several years in many European and non-European cities.

Obviously, we move in a universe rich in "innovative" ideas, and for this reason, only realized projects have been selected, in order to interpret in terms of "positive effects" that result from the employment of these innovative screening systems, able to active integration, participation and communication mechanisms.

One of the most significant example, about the integration process, is the characteristic fence system realized for the restoration of the Kaiser Wilhelm Memorial Church in Berlin.

The "Layher Protect System" installed by Gerustban Tisch efficiently protects pedestrians from the risk of falling objects, but it also assures the continuity of the building process (h24) and gives to the construction site an "attractive" appearance.

It is a scaffolding system totally closed and that completely hides the Tower to be restored. Thanks to the adoption of this kind of screening, the construction site proves to be entirely integrated in the urban landscape, sometimes making difficult the localization of the original monument, for a tourist – for example – who is looking for the Tower of Wilhelm. Therefore, a temporary structure, which is usually defined as a physical and perceptual obstacle and generator of countless impacts (about mobility, human health, livability of open spaces) is transformed – from a perceptual point of view – into an integrated building in both form and the architectural language to the context [7].

The start of a construction site with a considerable importance often represents an opportunity to activate positive participating mechanisms. At this regard, it is extremely interesting the "constructing site show" – still in progress – for the restoration project of the *Fontana di Trevi* in Rome.

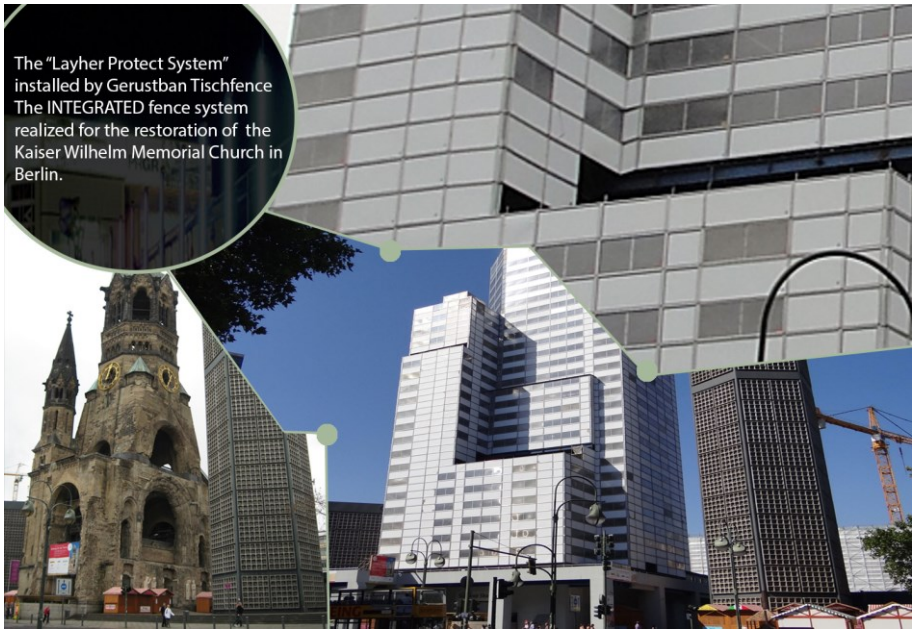

Fig. 6 – The restoration construction site of the
Kaiser Wilhelm Memorial Church in Berlin

The fence system has been realized with transparent Plexiglas panels. On the front of the fountain, the works have been organized starting from the central front to the lateral ones. It is possible to enjoy the Fountain with a closer look and from a new perspective thanks to a clever organization of the didactic construction site. Therefore, you can take a real "suspended walk" above the bath where Anita Ekberg, dressed in black, sensually put her feet. A walk some meters over the wonderful monument designed by the architect Nicola Salvi. Every day, the panoramic footbridge allows tourists to follow in person and as real protagonists the works of the symbol of the Capital.

Furthermore, two screens have been installed along the fence system: they show authentic and historical images about this Fountain.

The main aim has been to contain the inconveniences caused to beneficiaries, to attract new ones and to hold high the exposure and the usability of this historical monument during the whole duration of the works.

Fig. 7 – The restoration construction site of the *Fontana di Trevi* in Rome

Thus, the operational phase of the restoration has become an opportunity: an "open-air" construction site, an artistic show to be lived, where the public is part of the scene. The intervention, which had initially aroused no little concern for the negative impact on tourism, actually has obtained the opposite effect. The result has been to attract on site a greater number of beneficiaries than what usually is recorded. Just after a month from the start of the works has been recorded more than 250 thousand tourists and Roman citizens who have walked on the panoramic footbridge. The "innovative" construction site has attracted an average of 1200 people per hours.

"The communication process has to: AROUSE the attention, ASSOCIATE the message to the personality and the experience of the listener/reader, REVEAL and SHOW its contents through a direct involvement of the public and the use of the senses, in a creative way and from an unique point of view, GUARANTEE the unity of the message also from a graphic point of view"[10].

Communication activity represents a strategic tool aiming at the management of social and environmental effects produced by construction sites. In Italy, the most relevant experiences have been adopted in Turin, Milan and Rome, where this strategy has recorded very good results. Internationally, these initiatives have already stabilized for several years.

Another important and significant example about the confinement devices of the construction site areas and connected to the communication process is the fence system project realized in Harajuku (Tokyo) in Japan by *Klein Dytham Architecture*, by will of the airline company *Virgin Atlantic Airways.*

It is well known that Japan particularly "loves" all new technologies also adopted to lifestyles; and this sponsored project employs very current electronic technologies. Its use, employed on urban scale and by using temporary supports, is the real "invention", because it is able to produce new ways of interaction. *iFly Virgin Wonderwall* is a red acrylic wall, 20 meters long and provided with a long LED screen which projects general knowledge questions to which passersby are invited to respond, connecting with their smartphones. It is an example of interactive installation on grand-scale, which, like a game, becomes a tool of advertising communication.

It becomes useful especially for commercial purposes, but also to minimize negative impacts on the social context.

The façade is no longer "silent" but it "questions" people for more interaction. It is a fence system typology which links on the border technological devices (wireless connection, multimedia sensors, LED) and allows users to undergo a multimedia experience.

Fig. 8 – The construction site: place of communication

In this way, the construction site becomes a place where culture, information and emotions can be mixed up and shared.

5. Conclusions

The construction site is the place of the transformation, a choral work that grows over time to give new equipment and services to the urban system. If this transformation is in accordance with the existing environmental and social balance, reducing the negative impacts and enhancing the opportunities for growth of civil awareness and participation, it becomes a device that Interprets and communicates these elements.

Notes

[1] Cfr. The future we want. The city we need: principles for a New Urban Paradigm, UN-Habitat Document towards Habitat III, Edition 2013

[2] About it see what argued by Carlo Ratti , 2014 - p. 111 and seg
[3] Cfr. Gilles Clement, 2004. p. 55
[4] Cfr. Container Art, a network of places conceptually, materially and digitally linked through art, an International outdoor museum of contemporary art, where installations, paintings, video-works and sculptures of the most innovative artists in tens of containers in squares, roads and parks of the city stimulate the dialogue with population and art contemplation.
[5] The founding members are: Leonardo Amendola, Ambrogio Bosco, Giuseppe Clemente, Carmine dello Ioio, Antonio Del Prete, Paola Del Prete, Margaret Januario, Antonio Januario, Silia Pellegrino and Giovanna Savona.
[6] Cfr. The future we want. The city we need: principles for a New Urban Paradigm, UN-Habitat Document towards Habitat III, Edition 2014
[7] http://www.thefinertimes.com/Middle-Ages/cathedrals-in-the-middle-ages.html
[8] Kevin Lynch's studies are still useful for a methodological approach to urban perception. Particularly distinction among perceptive categories are useful and it may be adopted in the case of studies on construction site.
[9] In Davidson J., Bondi L., Smith M., cfr. Introduction: locating emotion, relating emotion, representing emotion
[10] Freeman Tilden (1883-1980), "Interpreting our Heritage".

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Environmental redevelopment of brownfield and reconnection of urban open spaces

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Caterina Frettoloso[3]

Abstract: The paper focuses on the concept of linear park as recovery strategy of disused areas aimed at making a new system of sustainable mobility, connecting different cultural and economic resources of the city, as well as, different ecological areas.
The illustrated thesis project shares this idea providing the rehabilitation of the ex-part of Circumvesuviana railway line in municipal area of Scisciano (Napoli-Italy), dismissed since 1998 near an area intended for mainly rural use, uncultivated from decades.

Keyword: Environmental rehabilitation, urban recovery, C&D materials, sustainable mobility, ecological connection.

1. Urban railways: opportunities for urban recovery

Rail transport incises on about 2% of the national energy balance in relation to the activities of transport and, considering that the polluting emissions in the atmosphere reflect the performance of their

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consumption, it can be considered one of the more sustainable modes of transport. Nevertheless, the number of users, especially in urban areas, still prefer road transport, which seems to be more competitive if the so-called environmental (pollution, greenhouse gases, traffic) and social (traffic accidents, diseases) costs associated with it are not taken into account [1].

Noting the numerous examples of railway lines in urban areas in Italy and, in particular, in Campania, there is a need to carry out further studies on the relationship between the infrastructure, the city and its people at different stages of construction, operation and demolition.

Starting from the construction site, there are a number of problems, that in recent years have been the subject of research, due first of all to the period, rather wide, in which the works are realised. The activities related to their realisation produce a series of impacts on the territory in terms of changes in urban organization. In fact, they interrupt and, in some cases, change the environmental, social and structural functions, normally carried out by the space occupied by the construction site, whose spatial configuration changes several times in order to fulfil the different needs of the project.

In the operation phase, the impacts of a railed infrastructure are closely related to noise, vibration as well as the physical and perceptual barrier that cuts/separates, from fruition and environmental points of view, parts of the same city. The weight and severity of these impacts is closely related to the design choices that, especially in the last century, have not taken into due consideration the protection of the territory.

The obsolescence of these structures, not only due to the natural technological evolution but also poor maintenance and mismanagement, is often unavoidable and draws to the attention of administrations, the delicate question of their dismission. This concept, in the sense of opportunity, emerged from the 1990s when industrial dismissions began to be considered as a resource for urban regeneration, making new space available to be reused.

The considerations that follow focus on infrastructures for urban transport, characterized by a predominantly longitudinal

morphological development and the potential, not only in terms of both space-conversion function that these areas can offer, but also the conservative transformation of existing assets. In fact, the choice to work on the regeneration of an existing system, in some cases from an historicised urban point of view, may be interpreted as a design approach oriented towards the optimization of the resources available.

2. Linear parks: main issues

The Design Technology thesis project, supervised by me and highlighted by the student in the following sections, illustrates the salient points, starts from sharing the concept of dismission as opportunities for eco-oriented transformation. Inspired by the presence of a large disused area of the Circumvesuviana, with the demolition of the station having already been planned, it was decided to identify a number of design strategies aimed at integrating the accessibility issues of the site, the safety, lighting and cleaning, with aspects related to environmental sustainability, especially in relation to the management of soil resources, the use of the greenery according to different functional levels (agricultural/leisure/ users' comfort).

In fact, the reuse of unused rails, as a linear development spatial element, has provided the opportunity to reconnect the different existing open spaces currently not used or, in many cases, used spontaneously and not always safely. The new organization-functional space planned for the project area is inspired and reflects the concept of so-called linear parks intended as "a publicly accessible natural or landscaped space in an urban or suburban setting that is much longer than it is wide and that often follows the route of an abandoned railroad right-of way, a cut-and-cover tunnel, and urban river or creek, or is located under elevated transit tracks" [2].

Among the many features of linear parks, the one that most attracted our interest is in the mode of use. In fact, unlike traditional urban parks designed for recreation, that could be called "passive", linear parks constitute connection systems. They are not places where to go and stop but rather lead somewhere, combining recreation with

those aspects related to mobility. A mobility that needs to be organized according to the criteria of sustainability and, therefore, conceived as a system that "meets the needs of society to move freely, gain access, communicate, trade and establish relationships without sacrificing other essential human or ecological requirements today or in the future" (World Business Council for Sustainable Development) [3]. The public space open to a prevailing linear development is configured not only as a new system of sustainable mobility but also as a system connecting different cultural and economic resources of the city, helping to trigger urban regeneration mechanisms.

The presence of disused Circumvesuviana infrastructures also offers the opportunity to carry out a more detailed development project related to the recovery and reuse of construction and demolition materials. This aspect, as will be shown, has been addressed before in terms of selective demolition strategies with reference to specific procedural protocols, then from a design point of view, working on the reuse of C&D materials in the arrangement of the same linear park taking into account aspects related to site organization during the storage of secondary raw materials.

3. Experimentation educational project: the dismissed line of ex railway line of Circumvesuviana in Scisciano (NA)

The main target of the thesis project is the environmental rehabilitation of the ex-railway line of Circumvesuviana in the Municipality of Scisciano (Napoli-Italy), currently a dismissed area. The railway passes through both a densely built area and a mainly rural area.

The transformation project here hypothesized is oriented to reconnect open spaces, both existing and new designed, with the purpose to realize a new system of public spaces opened to all citizens. The old station building offered the inspiration for a selective demolition, with the intent to recovery, recycle and waste disposal, based on project VAMP2[1] protocols [4]. To maximize the materials

recycle, the demolition plan was edited according to the guideline of DPR 157/2006 and of Vademecum Campania 2009.

Figure 1: Dismissed station of the railway line of Circumvesuviana (picture by Raffaele Esposito)

The areas of interest of the project are mainly about the sustainable mobility, the recovery of inert, and the creation of green areas equipped for free time and for supporting existing educational institutions [5] [6].

The phase of analysis that concerned the following points:

- Overview of the area into the regulatory context,
- Photographic and metric evaluation
- Study of urban mobility
- System of margins
- Observation of the existing public green and rural green
- Microclimate analysis

portrayed a situation with shortage of performance, both for vehicular mobility (barely enough), pedestrian and bicycle (insufficient). Indeed, people are forced to move to neighboring districts for athletic

and outdoors activities, because there are no dedicated areas. In the thesis project, the area of about 3,70 ha has been arranged in the following way:

- Creation of a pedestrian zone with a cycling lane, using the ex-railway line of Circumvesuviana.
- Design of green areas with didactic, recreational and rural purpose, basing on the expropriation of the additional rural area of the railway, uncultivated for many years.
- Expositive and market area, to revamp the entire zone by the of the old station, strongly declassed.
- Identification of the spaces for the building site (temporary storage, recovery structure area, gabion store) in the phase of selective demolition.

The long way that connects the schools of the territory is linear. The urban center provides an exhibition center where it is possible to show or sell products grown at KM 0 serving the entire municipal territory. It is characterized by stands of small dimensions, realized with gabions whose inert derive from the selective demolition of the old station area, and whose sizing was designed basing on the amount of garbage obtained from the demolition itself.

Figure 2: Uncultivated areas designated for urban park (picture by Raffaele Esposito)

Gradually, the route proceeds towards the rural zone with a green area, where it is possible to distinguish didactic vegetable gardens, playground, sports facilities and fruit gardens.

The obligatory passage through the orchard has an educational function in order to preserve the existing patrimony. However, it is important to highlight that one of the biggest problems was to make coexist some of the pre-existing structures, like the municipal police department, with the new transformation project. The aim was to reach a new urban balance, a physical and cultural place where people can identify themselves, share experiences and share the territory.

Finally, the environmental requalification project has got as a main goal the reactivation of the mechanism of social development, oriented to make people aware of the places where they live.

Figure 3: Master plan and cross section of the urban park (design thesis by Raffaele Esposito)

4. Experimentation educational project: ecological issues

The redevelopment project described above, pays special attention to both the ecological aspects as well as those related to biodiversity. From an ecological/environmental point of view, the area under study is greatly compromised due to both the presence of uncultivated areas and free of natural vegetation as well as territorial fragmentation caused by the old, now dismissed, railway line.

Interventions that help to improve the environment of the area, both in relation to the quality of the ecosystem of the areas as well as the territorial ecological connectivity are those relating to the agricultural areas and the construction of the cycle/pedestrian path.

The biodiversity of the agricultural ecosystems has been greatly reduced over the past decades, not only due to the extreme specialisation of crops, but also to the abandonment of traditional farming systems, such as hedges and trees, that were important ecosystems for many animal and plant species [7].

Hedges and rows represent a haven of refuge and survival for all species that can no longer find a suitable place to reproduce in the fields [8]. They also act as biological corridors connecting on a local level, encouraging an exchange of genetic material, both plants and animals, through the connection between otherwise isolated natural areas [9].

The redevelopment project in the territory of Scisciano takes into account the ecological implications arising from appropriate choices in relation to the design of the agricultural spaces. The project involves the inclusion of vegetation strips at the edges of agricultural parcels and ecotonal areas of separation between them, paying particular attention to details such as the length, width and height of the hedges as well as the presence/amount of trees. These elements are also used to create links between the agricultural zone, the area of orchards (walnut and hazelnut trees) and that of the educational gardens in the eastern part of the area.

As previously mentioned, another important issue considered in the redevelopment project for the ecological improvement of the area, is the conversion of the disused railway line into walkway/cycle path.

The railway line is a considerable territorial fracture and, as in the case of other linear connecting infrastructures, its presence has a significant impact on the ecosystems: *barrier effect*, investment in wildlife, environmental fragmentation and destruction of habitats.

The possibility of movement and relationships between the meta-populations of wild terrestrial animals, especially of the smaller and slower species, is reduced by the presence of linear infrastructures [10]. The traffic of the railway is also a limit to many animal species due to the probability of death when crossing it.

In relation to environmental fragmentation, it has been recognized as one of the major global threats to the conservation of biological diversity. This effect, ecologically very dangerous, reduces the vitality of animal populations, since the area available decreases, with the dispersion of individuals throughout the territory itself and the opportunity to meet and have genetic exchanges becoming more difficult. In particular, the less mobile and adaptable species are not able to sustain a high degree of environmental fragmentation and may become locally extinct [10].

The transformation of the disused railway line into a pedestrian and cycle path allows for the reduction of territorial fragmentation at a local level through the restoration of the environmental continuity that had been interrupted by building the infrastructure. The intervention therefore allows a *transversal reconnection* between the two parts of the territory divided by the infrastructure and a *longitudinal reconnection* (along the rail) between the different functional areas defined in the project that no longer appear as a set but rather as a system of spaces.

With these special features, the planned path is, in effect, the connotation of *greenway*, or in other words a linear system of public green spaces that, using abandoned or obsolete infrastructures, on the one hand, allow for the preservation of the landscape, while on the other, their development for recreational purposes [11]. If the paths run along areas with natural vegetation, then the greenway can assume the same functions of ecological corridors, facilitating the processes of dispersion of animal and plant populations in the area.

Notes

[1] The project VAMP, supported by the European Union in range of program LIFE-Environment and coordinated by Emilia Romagna Region in collaboration with a group of partner, has got as main objective to create a "second hand market" of materials and components for constructions, more efficient, favorable for the environment and economically sustainable, where producers of waste and potential re-users can access easily and quickly. For these reasons, it was developed and tested an informative distributed system accessible through the Internet that puts into contact supply and demand of waste C&D registered on the territory, and is able to pilot flows of materials towards the destinations actually available.

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The use of *urban farming* in sustainable regeneration interventions of anthropized areas

Rossella Franchino[1]

Abstract: To intervene on the development of the urban territory in order to find an alternative to the model that emerged over the last century, consolidation interventions need to be orientated towards sustainability. Consequently, the contribution from the conversion of urban open spaces is particularly important, since they constitute nodal elements capable of performing the delicate function of linking the urban systems with the surrounding natural ones, while assuming a strategic role in the transformation of anthropized areas. In this context urban farming can make a valuable contribution as an effective instrument for the renewal of urban open space because offers significant possibilities from an environmental, economic and social perspective.

Keyword: ecological-environmental regeneration, *urban farming*, urban open spaces

1. The transformation of urban open spaces through *urban farming*

"Managing urban areas has become one of the most important development challenges of the 21st century. Our success or failure in building sustainable cities will be a major factor in the success of the post-2015 UN development agenda," said John Wilmoth, Director of United Nations DESA's Population Division (Department of Economic and Social Affairs) [1].

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This statement, highly significant in light of the expected substantial growth of urbanization in the coming years, should lead to reflecting on the future of urban agglomerations and, in particular, their use of natural resources.

To intervene on the development of the urban territory in order to find an alternative to the model that emerged over the last century, consolidation interventions need to be orientated towards sustainability.

The challenge is therefore the following: can cities become capable of self-regulation in environmental, social and economic terms?

Consequently, the contribution from the conversion of urban open spaces is particularly important, since they constitute nodal elements capable of performing the delicate function of linking the urban systems with the surrounding natural ones, while assuming a strategic role in the transformation of anthropized areas.

In this context *urban farming* [2] [3] can make a valuable contribution as an effective instrument for the renewal of urban open space because offers significant possibilities from an environmental, economic and social perspective.

Urban farming offers significant possibilities since it allows for the improvement of the environmental quality of these spaces, the achievement of both social benefits, with its responding to the needs of aggregation, thus implying a collective use of the land by the inhabitants, as well as economic ones, with its being configured as an innovative business model (the self-production of food products at km 0), which can be easily extended to other related activities such as catering.

Urban farming, through the valorisation of agricultural areas, can also represent an interesting opportunity in both retrieving and restoring degraded urban areas as well as improving them from an ecological point of view. Obviously these areas, once suitably upgraded, can be networked with the green spaces in the city so as to achieve an ecological connection with the rural and natural peripheral areas.

2. Case studies: a hypothesis of urban farm for Aversa and Formia (Italy)

In order to arrive at an applicative definition of the concepts previously presented, several didactic experimentations carried out during the course of "Design of environmental systems" held by prof. Rossella Franchino in the academic year 2013/14 for the degree course in Architecture (Department of Architecture and Industrial Design "Luigi Vanvitelli" - Second University of Naples) are presented.

The aim of this didactic experiment was the use of urban farming for the environmental requalification of open urban spaces. This requalification process assumes an important role, especially when the ecological and environmental conditions of the open spaces are significantly affected by their transformation, thus corresponding to a renewal of the urban context.

2.1. Case study of Aversa (CE)

The first case study relates to the requalification of an open urban space into a fresh fruit and vegetable market in the city of Aversa in the province of Caserta. The area is currently in a state of decay and degeneration, with the aim of being to transform it completely, not only from an ecological-environmental point of view, but also so that it can be enjoyed by the local residents according to the logic of urban and social gardens, that aim to breathe new life into the local agriculture.

The main features of the new area will be:

- food production: crops and trees will provide fresh produce for the market, restaurants and street food stalls;
- self-sufficiency: the use of various technologies such as photovoltaic systems, wind turbines, rain garden sand systems for the recovery and reuse of rainwater making it a self-sufficient structure;
- green areas: the presence of trees and gardens will ensure psychological-physical well-being.

The project area for the new fruit and vegetable market takes into consideration the relationship that must be established with the existing urban fabric: alienation or integration. The project was created on this dichotomy: the park becomes a space for the context, while the courtyard, lower than the street level, is cut off from the site recreating a *hortus conclusus* in which the experience of the context is denied. The tower of the residence is the only part that communicates, standing with and against the surrounding area: like an arboreal totem, the vertical garden emphasises the presence of the intervention.
Figure 1 presents the climatic and environmental analysis that preceded the project idea and upon which it is based. Figure 2 shows the project concept prepared in accordance with the logic of the transformation intervention of an open space, considering the preservation and regeneration of the natural resources as well as the connection between the environmental and landscape values for an overall enhancement of the territory. Figure 3 presents a *rain-garden* system for the recovery and reuse of rainwater at the territorial scale using a passive system [4]. Figure 4 shows a photovoltaic system for the production of electrical energy integrated into a roof garden under a covered path.

2.2. Case study of Formia (LT)

The second case study presented relates to the redevelopment of an open urban space in Formia in the province of Latina, characterized by the presence of an imposing and impressive building, that is currently in a state of neglect and was formerly home to a brick factory. The intervention area, facing a highly built-up area, is located a short distance from the sea and has a typical Mediterranean climate with hot/humid summers and mild winters. Due to its unique characteristics, including proximity to the city centre and climatic factors, the area was suitable for the construction of an urban farm.

The redevelopment project was aimed at the sustainability of the resources: environmental and energy. Thus, the project included the use of a solar greenhouse, green walls, garden roofs, a bio-lake, green street and constructed wetlands. The building includes offices, a canning factory and spaces for the sale of products at km 0. The

uncovered area are mainly used for the cultivation of plants and crops native to the area.

Figure 5 presents the climatic and environmental analysis and Figure 6 shows the project *concept*. Figure 7 presents a bio-lake system for the recovery and reuse of rainwater at the territorial scale. Finally, Figure 8 shows the application of a cultivable roof garden system.

3. Conclusions

This work studied the use of *urban farming* as an effective tool for the sustainable renewal of urban open spaces, highlighting the particular potential of these spaces that constitute the nodal elements capable of performing the delicate function of linking the urban systems with the surrounding natural ones, while assuming a strategic role in the transformation of anthropized contexts.

Through the application to appropriately structured case studies, it was also possible to highlight the significant opportunities presented by urban farming from an environmental point of view, improving the quality of the air, water and soil sub-systems, a social one, favouring the aggregation of the inhabitants, as well as an economical one, with it being configured as an innovative business model.

Finally, this work has also highlighted how urban farming, through the valorisation of agricultural areas, can represent also an interesting opportunity in retrieving and restoring degraded urban areas as well as improving them from an ecological point of view.

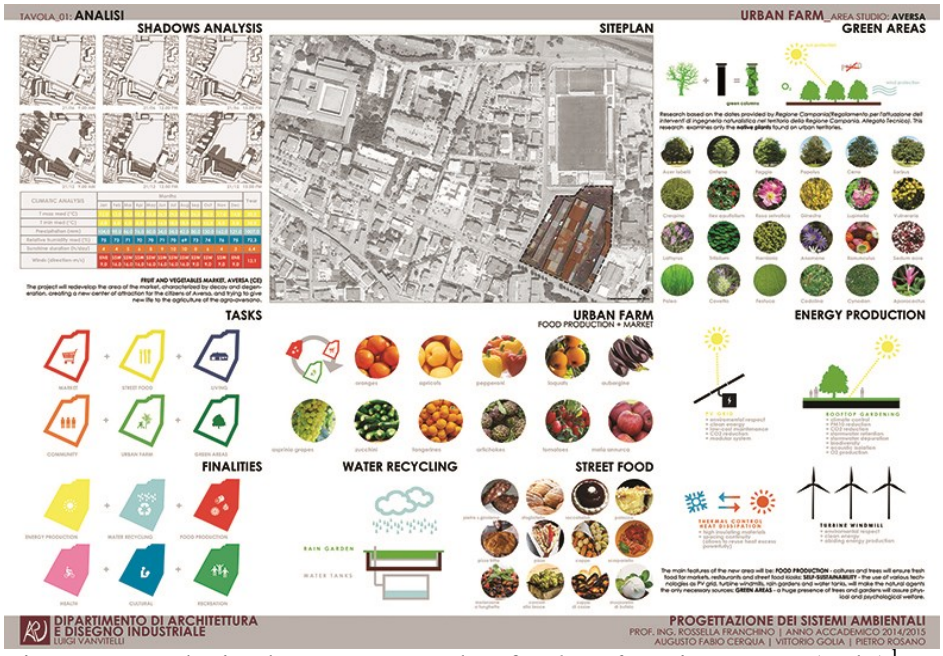

Figura 1- Analysis phase - case study of *urban farm* in Aversa (Italy)[1]

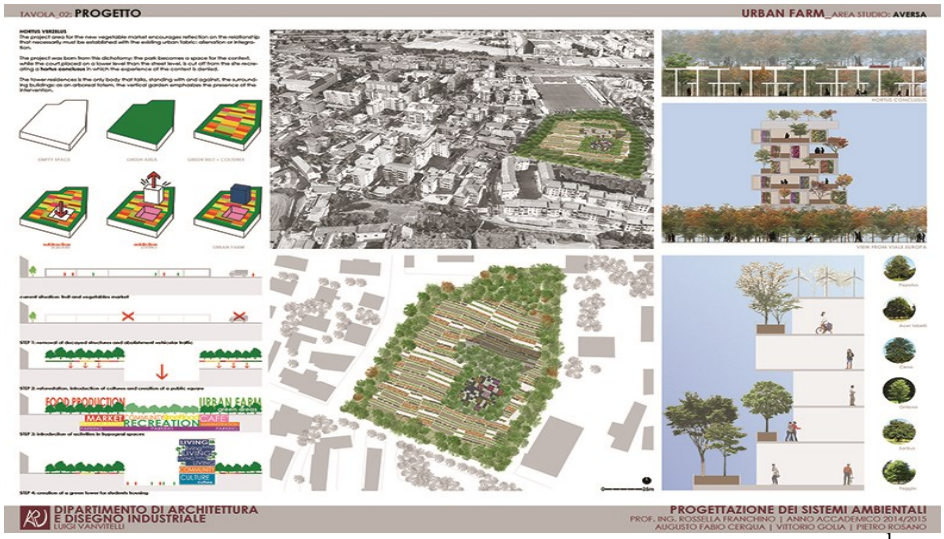

Figura 2- *Concept* phase - case study of *urban farm* in Aversa (Italy)[1]

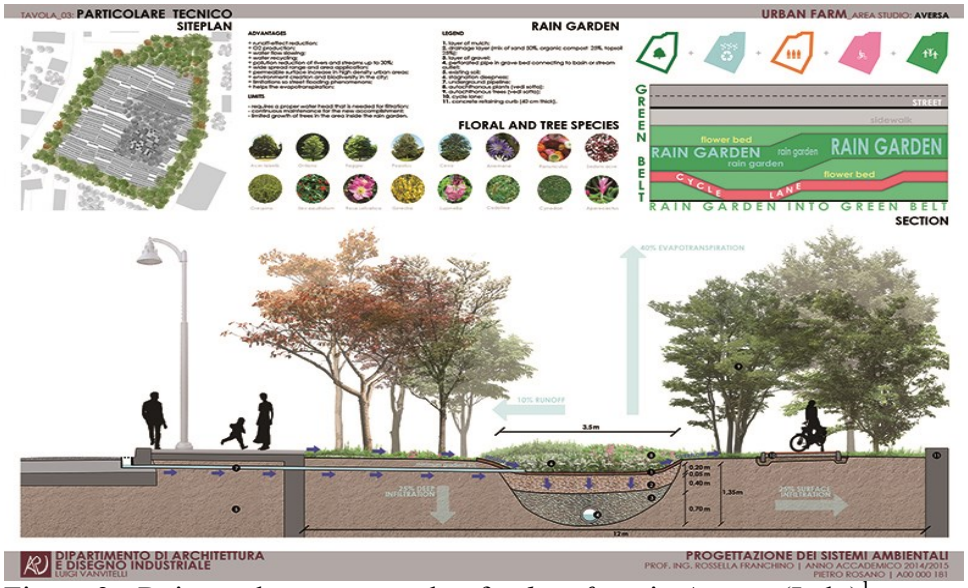

Figura 3 - Rain garden - case study of *urban farm* in Aversa (Italy)[1]

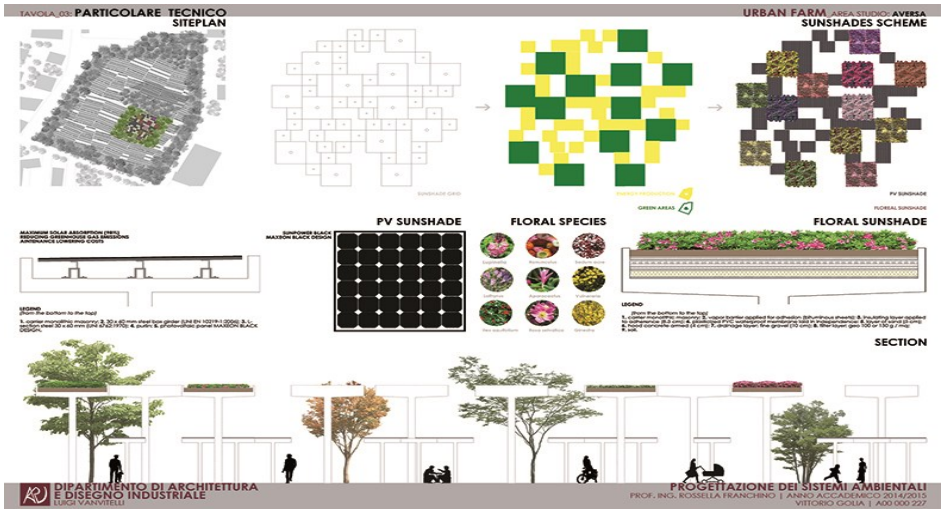

Figura 4 - Photovoltaic system - case study of *urban farm* in Aversa (Italy)[1]

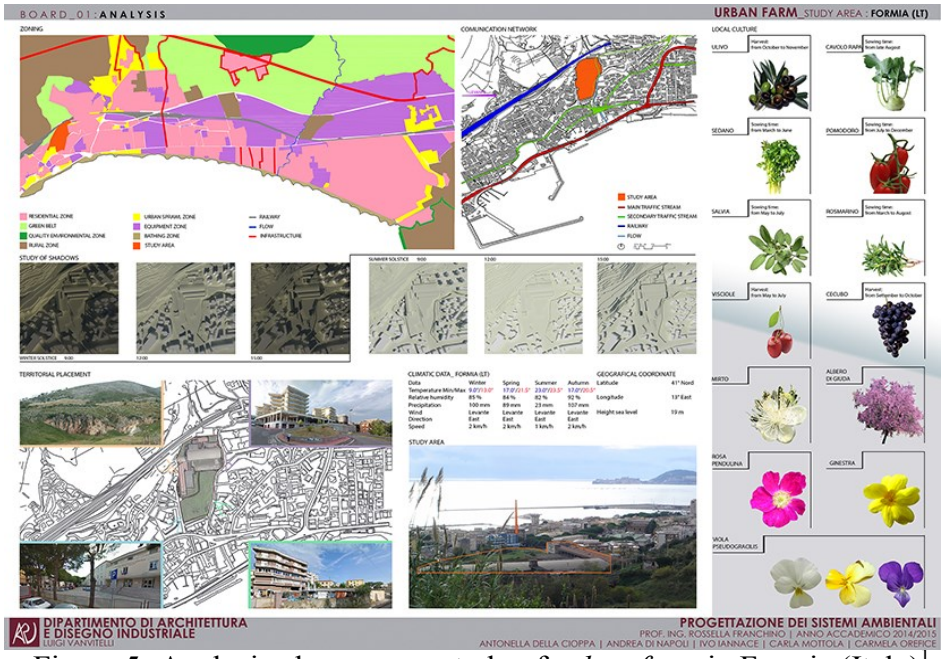

Figura 5- Analysis phase - case study of *urban farm* in Formia (Italy)[1]

Figura 6- *Concept* phase - case study of *urban farm* in Formia (Italy)[1]

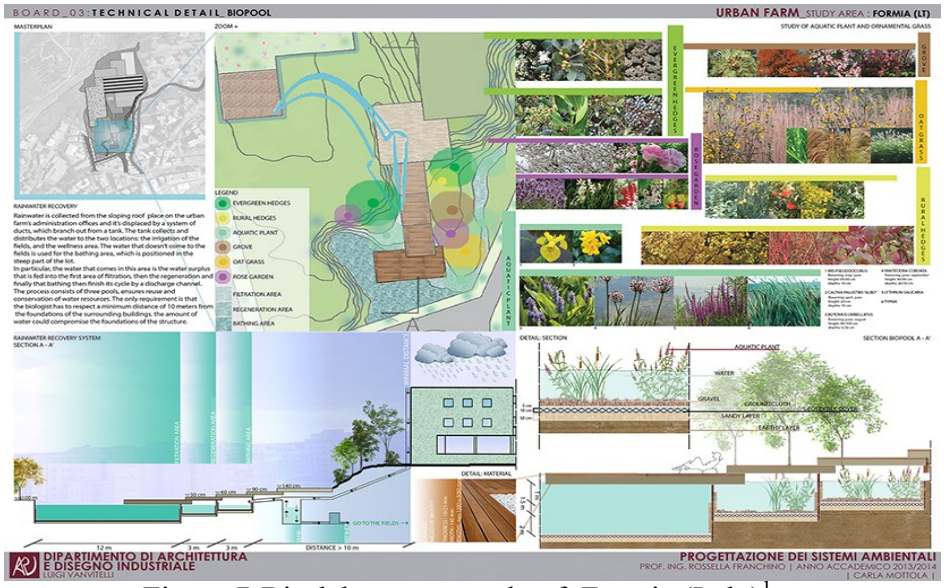

Figura 7-Bio-lake - case study of Formia (Italy)[1]

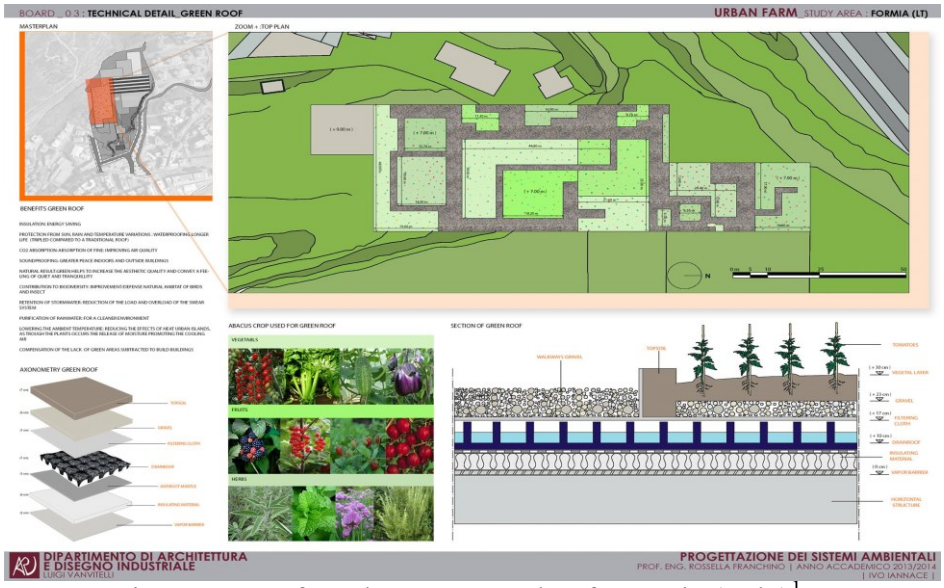

Figura 8- Roof-garden - case study of Formia (Italy)[1]

Notes

[1] The tables presented in Figures 1, 2, 3, 4, 5, 6, 7 e 8 were elaborated by students during the course entitled "Design of environmental systems" (lecturer: prof. ing. Rossella Franchino - academic year 2013-14) on the degree course in Architecture at the Department of Architecture and Industrial Design of the Second University of Naples. The tables presented in Figures 1 and 2 were elaborated by Vittorio Golia, Augusto Fabio Cerqua e Pietro Rosano, the table presented in Figure 3 was elaborated by Pietro Rosano, the table presented in Figure 4 was elaborated by Vittorio Golia, the tables presented in Figures 5 and 6 were elaborated by Antonella Della Coppa, Andrea Di Napoli, Ivo Iannace, Carla Mottola e Carmela Orefice, the table presented in Figure 7 was elaborated by Carla Mottola and the table presented in Figure 8 was elaborated by Ivo Iannace.

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Conversion of an ex-mine in Greece into solar park; evaluation of resulting benefits

I. Tzouvadakis[1], M. Kaltsounis[2], N. Topalidis[3],
A. Stamos[1], A. Sotiropoulou[4]

Abstract: This is a pilot project which, for the first time investigates the conversion of an ex-mine into solar park. Economic evaluation of the solar park demonstrates the sensitivity of results to geographical location, current economic policies and the market dependent initial cost of installation. The present case study was found to be non-profitable; the latter could be offset through tax reduction and/or migration to southern locations. This work is indicative of the ecological benefit associated with such initiatives (annual saving of 515 tons of CO_2), as well as it is an example of application of new convenient-to-use methods of 3-D mapping in projects of this kind.

Keyword: Solar park, ex-mine, environment, satellite images.

1. Introduction

The rapid expansion of urban centres in modern world, with the associated technological and technical developments, have resulted in an increasing demand for large quantities of raw materials and matter. This in turn, has given rise to numerous quarries and mines around urban developments, which are usually abandoned after they are exhausted, without providing for some future use. Unfortunately, ex-

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quarries and -mines, often turn up into awkward sites, which pollute natural environment either visually or in the form of land fills, etc.

The rehabilitation of such traumatised landscape, though it is usually difficult, costly and time consuming, it has already been the object of few studies and projects. In particular, in the case of underground ex-mines and –quarries, examples are tunnels which have been re-used as hotels [1], as interactive educational museums, as storage for hazardous waste, as shelters, etc. Nevertheless, open-air ex-mines and –quarries are reported to have been re-used either as theatrical developments [2], or to have been the object of revegetation [3]. Also, they are reported to have been the object of projects aiming to re-use the site for the production of cost effective 'clean' energy [4,5,6]; this is an innovative use, which accounts for global needs associated with economic and ecological crisis.

This work is a pilot project, in which the possibility is investigated, to install solar panels within the site of an open-air ex-mine in Greece. New convenient-to-use methods are employed for the 3-D mapping of the site.

2. Review of past work

Amongst the fewest works which have been reported in the relevant literature, to investigate the question of restoring open-air ex-mines, for the production of cost effective 'clean' energy, are the following:

On the one hand, Northland in **Ontario Canada** is proposing a major project to convert the Marmora Mine property into a 400 megawatt pumped storage facility [4]. The project would commit the site to long term 'clean' energy production. The facility stores and generates electricity by pumping water into an upper reservoir when energy demand and rates are low; then water is allowed to flow down

through the same pump/generator system to generate electricity when it is needed by the grid. In addition to being very cost-effective, the completed facility will offer instantaneous power, providing important support for Ontario's grid. Other benefits include the fact that it will produce no emissions and will offer potential for tourism and education when complete.

On the other hand, a novel power generation system which exploits renewable/natural resources using open pit mines has been proposed [5]. The system consists of a thermically induced pneumatic (wind turbine) power tube assembly, which is designed with reflective surfaces for concentrating solar energy. A feasibility study was performed, of the proposed system, installed for a range of small and large open-air mines in **South Africa.** The paper also presents the societal benefits of reclaiming land areas that are otherwise non suitable for habitation.

Last, Rhys et al [6] acknowledged the need for rehabilitation criteria in ex-mines and developed a framework for sustainability criteria and indicators, to suit the needs of ex-mines.

Investigating an ex-mine in **Greece**, for the accommodation of solar panels as producers of cost effective 'clean' energy, can be an interesting exercise

3. Installation of the solar park in the ex-mine

Thanks to its latitude, Greek land, broadly speaking, is considered appropriate for the production of cost effective solar energy. The selected ex-mine is in Polygyros Chalkidiki (latitude ~40° N), as this is a relatively northern part of Greece and therefore it can be used for reference with respect to other areas of the country. The test ex-mine is known as the "Gerakini" mine and was also chosen, for its appropriate solar orientation, shape and carving/terracing; the latter involves several large steps suitable to accommodate solar panels of a power plant (Fig. 1).

For the mapping of the site a recently developed method based on satellite images and global DEMs was employed [7]. This method

provides rapid mapping, which can be useful, for instance, in the case of crisis situations; the method is also suitable for preliminary and/or feasibility studies of large scale technical projects globally, as it can save costly and time consuming visits in-situ. This method was developed and is available in 'ThanCad', an open source CAD [8]. In the present paper also aerial photographs were used from the National Greek Cadastre, and the SRTM global DEM [9] adapted to the local coordinate system [7]. The area of the site to be considered was estimated at 0.910 km^2.

The 'terrain' of the test site was input to the 'Sketch up' software package and a 3-D model was produced (Fig. 1); based on the latter, the shading pattern of the 'terrain' was plotted (Fig. 2). The aim was to identify those areas of the mine in which solar shading throughout the year is minimal; i.e. solar exposure for prospective solar panels is maximised. Time sampling was confined to four distinct days, namely 21st December and 21st June, which correspond to the least and most daylight exposure (Winter and Summer Solstice) respectively, as well as 21st March and 21st September, which both correspond to average daylight exposure (Spring and Autumn Equinox respectively). For each of the sampling days, time intervals and regions of the mine were identified at which there is no shading. Results are shown in Fig 2. Insolated regions are designated as "Region A", and are recommended for solar panel installation.

In particular, the shading analysis indicated: On 21st December insolation of region A is almost 100% from approximately 8:00 to 16:30. On 21st June, the time interval of full insolation is extended from 07:30 to 19:00. Last, on 21st March and 21st September the time interval of full insolation is only marginally reduced, i.e. it is from approximately 8:00 to 18:00.

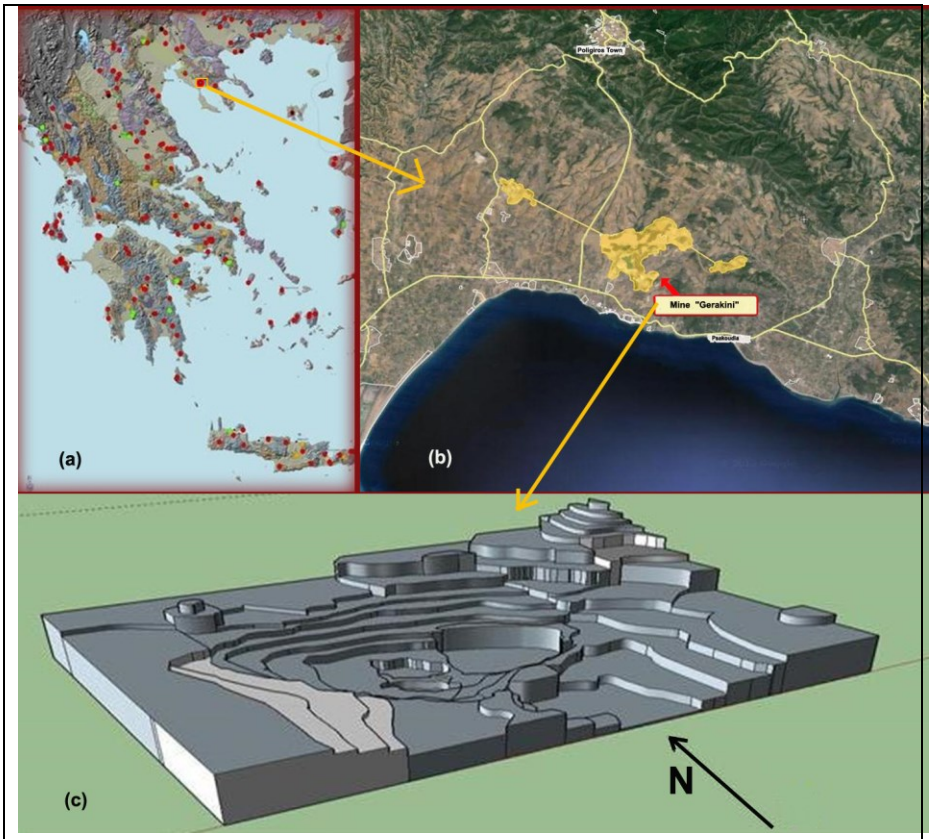

Fig.1 Mapping of the mine. **(a)** Geographical location, **(b)** Regional area, **(c)** 3-D model

The layout of the solar panels was decided on the basis of three criteria, namely: i) panels should be facing south, ii) the tilt of panels should be optimised for solar intake i.e. it should be approximately 30 degrees, iii) panels should occupy max available space within region A. Based on these criteria, it was predicted that region A can accommodate 93 tables (of size 18,16 × 3,40 m); each table involves 36 panels (of size 1,01 × 1,70 m). It follows that the overall number of solar panels to be installed in region A is 3348 (Fig.3). Given that the

yearly output of each panel amounts to 300 Watts, the yearly power of the plant is expected at best to be 1 MW.

According to available local data, the soil of the 'Gerakini' mine, is considered to be brittle, and of low shear resistance. Taking this into account it was decided to abandon the idea of ramming, and reinforced concrete foundation blocks were proposed to support the frames of solar panels.

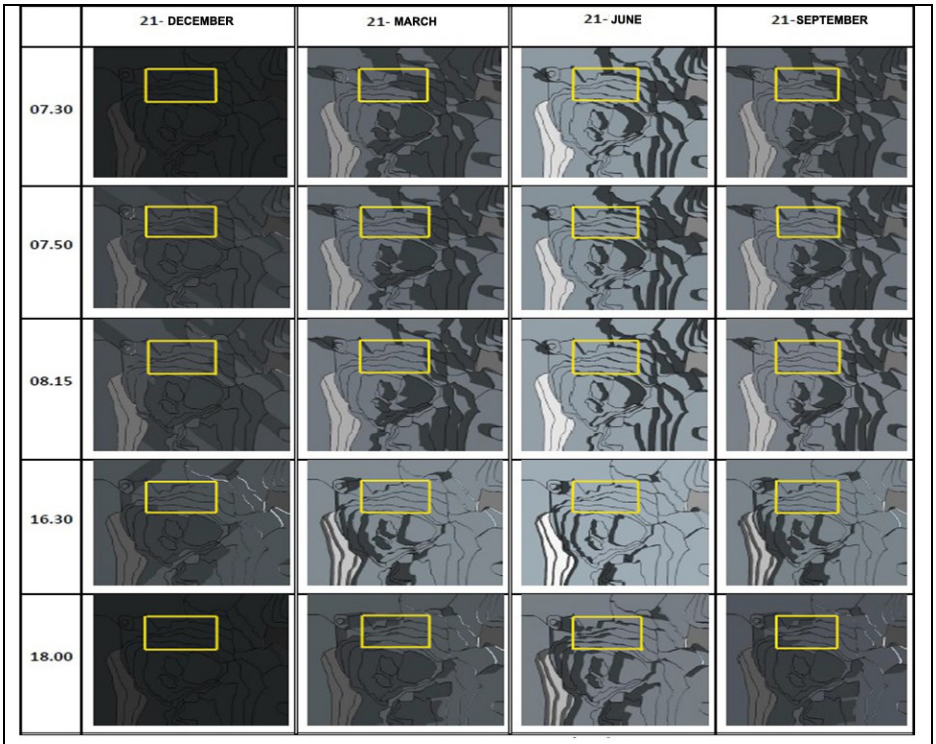

Fig 2. Insolation of the mine. *Yellow framing indicates insolated regions*

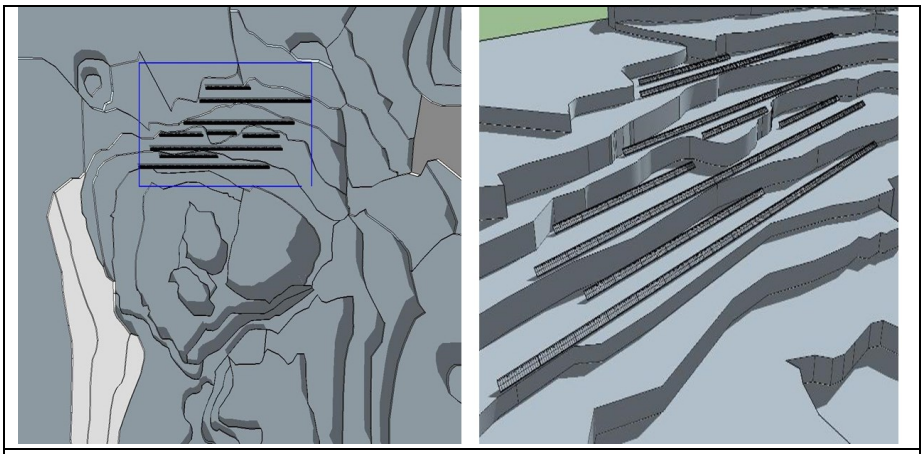

Fig. 3. Layout of the solar panels in the region of optimal insolation.

The proposed hardware briefly involves: DC-AC converters, which convert the input direct current from solar panels, according to the network specifications, Dimensioning cables, Panel boards, Grounding and Lightning protection, and Central electrical panel board. Additionally, there are provided security systems and fencing at the borderline for safeguarding the solar park, as well as telemetry devices for remote monitoring.

4. Estimated performance of the solar park

The energy performance of the solar system, was predicted using the PVGIS software package [10]. The input data involved: the precise location of the mine which was determined from the mine map, the nominal power which is 1 MW, the tilt of the panels which is 30 degrees, and the azimuth of the panels orientation, re south, which is 180 degrees. The average daily and average monthly electric energy production was predicted and is shown in Fig. 4.

In particular, the solar park was found to have average monthly production of approximately 80,000 KWh during Winter. In March, production picks up to 130,000 KWh and gradually increases to 173,000 KWh in July. The annual average monthly production is 126,000 KWh, and the estimated overall annual production amounts

to 1,510,000 KWh; this is adequate to power a village of 100-150 homes [11].

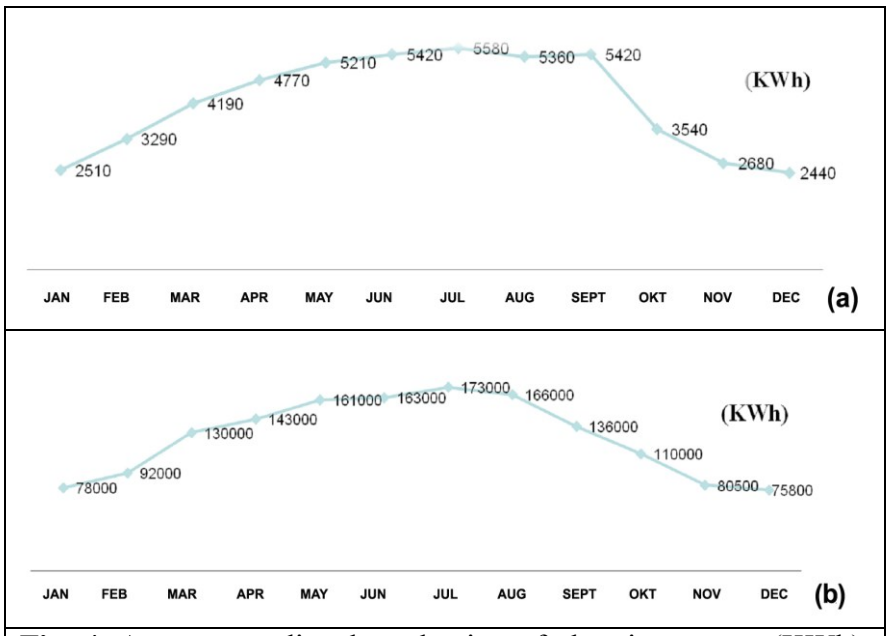

Fig. 4. Average predicted production of electric energy (KWh), **(a)** daily, **(b)** monthly

5. Evaluation of the investment

5.1. Economic evaluation

Economic evaluation of the proposed solar park was based on the following variables: **(a) The investment cost**. This cost was estimated to 1,050,000 € on the basis of data from the local market. Particular estimates involve: Solar panels 500,000 €, Structural support of solar

panels 200,000 €, Miscellaneous electrical hardware 200,000 €, Voltage substation 50,000 €, Other auxiliary systems 50,000 €, Transportation, Earthworks, Contingencies 50,000 €). **(b) Annual gross income of the installation**. This was estimated to 135,900 €. The estimation was based on current Compensation Rate [12] which is € 0.09 per KWh for investments up to 1 MW, i.e. for the present level of investment. Also, a pay back period of twenty years was employed, which is standard for predictions of this kind.

The evaluation employed the Net Present Value (NPV). This parameter is usually employed in capital budgeting to analyse the profitability of an investment. NPV is the difference between the present value of cash inflow, and the present value of cash outflow, over a period of time, as compared to alternative (reference) investments. NPV' s main difficulty/disadvantage is in the estimation of minimum investment performance which includes inflation, interest rate etc., and therefore it may not be reliable for reference use; minimum investment performance usually takes values between 8-10%. In present case the least favourable value was used, i.e. 8%. The predicted NPV in present study is shown in Table 1 and amounts to -143,000 €.

Table 1. Variables for the prediction of Net Present Value (NPV)			
Variable	**Symbol**	**Value**	**NPV (€)**
Initial investment cost	K_0	1,050,000 €	**-143,000 €**
Net cash flow	NCFt = (E – OPEX – A) × (1 – Φ) + A	106,500 €	
Estimated annual gross income	E	135,900 €	
Depreciation	A = K_0 / 20	52,500 €	
Operating expenses	OPEX = 1% × K_0	10,500 €	
Tax rate	Φ	26 %	
Minimum investment performance	K	10 %	
Payback period	N	20 years	

5.2. Evaluation of ecological benefit.

An important issue to be considered, is the ecological benefit of the test investment. This can be evaluated vs providing a solution to the utilisation of depleted open pit mines, and also vs the saving in carbon dioxide associated with the 'clean' energy produced. According to the Technical Directive [13] of the Technical Chamber of Greece, for the estimated 'clean' energy production of the proposed

solar park (section 3), there is a saving in CO_2 of approximately 515 tons. The latter is equivalent to the annual greenhouse gas emissions from 200 passenger vehicles, or from the annual energy use of 100-150 homes [11].

6. Discussion

Economic evaluation of the solar park in the 'Gerakini' ex-mine (Table 1), demonstrated that the proposed investment, could not be amortised over a period of twenty years; therefore this investment is considered to be economically unprofitable (section 4.1). Apparently, private investors would be put off by such an investment; the latter could only be attractive to public authorities solely thanks to its ecological merits (section 4.2).

One of the variables that could be critical in making the proposed investment attractive is the Tax Rate. By superseding current Tax Rate (26%) with a more reasonable rate, for instance 3%, the net Present Value is nullified, i.e. the initial investment cost is amortised just in twenty years (Fig. 5.a). Furthermore, the Annual Gross Income of the investment can play important role; this variable is closely related with the Compensation Rate per KWh (CR). In particular for more attractive rates of Compensation, for instance for CR equal to € 0.105/KWh the investment could be amortised in just twenty years, whilst for CR of the order of €0.125/KWh the pay back period could be reduced to 12.5 years (Fig. 5.b).

Apparently, subsidised investments which could provide for more attractive CR, initial cost of installation etc., would be worth under the present circumstances.

Furthermore, the investment could be made more profitable, for locations further south in Greece; for instance, in Cycladic islands and in Crete the system could be at least 25% more efficient.

The present project, considered together with the projects from the Ontario [4] and the South Africa [5] ex-mines (section 2), are amongst the fewest attempts to re-use open-air ex-mines for the production of cost effective 'clean' energy. Nevertheless, unlike the

Ontario and the Sth Africa projects, conversion of ex-mine into solar park, is considered for the first time in the present study. This issue could concern also other Mediterranean countries which enjoy solar exposure comparable to that of southern Greece.

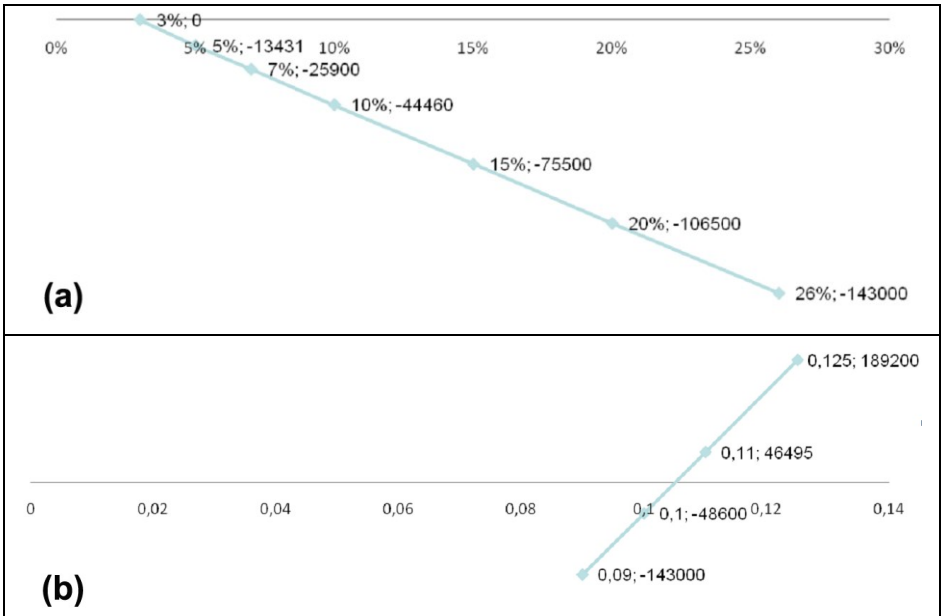

Fig. 5. Variation of Net Present Value **(a)** vs Tax Rate, and **(b)** vs Compensation Rate per KWh

7. Conclusions

Conversion of an ex-mine into solar park is considered for the first time in the present pilot project. The selected ex-mine is located

in Greece and present results could concern also other Mediterranean countries which enjoy solar exposure comparable to that of Greece. This work demonstrates the sensitivity of economic evaluation of the solar park investment, to geographical location, current economic policies, and the market dependent initial cost of installation. The study concludes that, under the present economic policies, only subsidised investments of this kind could be considered attractive. Furthermore, this study is indicative of the ecological benefit associated with such initiatives, as well as it is an example of application of new convenient-to-use methods of 3-D mapping in projects of this sort.

Acknowledgements

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Freight villages: an analysis of some European models*

Mauro D'Incecco[1]

Sunto. Il testo analizza alcuni tipologie di piattaforme logistiche, in base alle modalità con cui sono state realizzate in alcuni paesi europei (Italia, Danimarca, Germania e Spagna).
Dall'indagine emergono alcuni fattori di successo che ne caratterizzano la replicabilità.

Parole Chiave: Trasporti, logistica, interporto, infrastruttura, intermodalità.

Abstract. The text analyzes some types of logistics platforms, according to the manner in which they were made in some European countries (Italy, Denmark, Germany and Spain).
Our investigation reveals some success factors that characterize the replicability

Keyword: Transport, logistics, freight village, infrastructure, intermodality.

Introduction

The text analyzes some types of logistics platforms, according to the manner in which they were made in some European countries.

The "freight villages" (english designation) are called in different ways depending on the country:

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- "Interporti" in Italy;
- "Transport Centres" in Denmark;
- "Gunterverkehrszentren" in Germany;
- "Zonas de Actividaedes Logisticas" in Spain.

The different experiences of achievement show differences in the organization of infrastructure and services that offer the same logistics platforms .

Our survey reveals some success factors that characterize the replicability.

1. The Italian model: "Interporto".

A fundamental characteristic of the Italian model, conditioned by the choice made by the legislator in 1990, is the presence in the same area of logistics center and intermodal terminal.

The platforms are built quite heterogeneous and occupy an average area of 1,1mln square meters, but the necessary condition to the existence of a freight village is the simultaneous presence of areas dedicated to logistics, the areas used for intermodal services and a railway terminal.

The italian freight village system today consists of twenty four structures, affiliated to the UIR (Unione Interporti Riuniti).

The infrastructured areas of italian freight cover, as a whole, nearly 22 million square meters.

There are also vast areas that could be used for expansion in the short-medium term, areas already in availability of the operator, and not yet infrastructured, totaling over 10 million square meters.

In addition there are a further 5 million square meters intended for freight village activities, but not yet available to the operator.

In total, therefore, the Italian freight village system is internally constituted by: a vast real estate assets, both of warehouses and office buildings, both in terms of land.

Starting from the definition of freight village given by the legislator can outline a first highly critical.

If fact, legislator has given the objective of freight management companies to organize the structures in order to facilitate inter-modality through the use of rail transport.

To date only a few have important freight movements inside the terminal.

In fact there is a strong concentration of flows confined only to some freight villages.

In particular, a third of freight villages (8 of 24) show movements TEUs in 2012 amounted to more than 98% of freight village total.

This criticism is partly due to infrastructural limits.

These limits may be internal or external to the structure.

An indicator of internal limits to the structure is the maximum length, or form, train admissible (without being broken inside terminal).

The module is one of the key variables to make profitable the intermodal service, thanks to the reduction of unit costs of transport.

In 8 freight villages, of the 21 who participated in the statistical surveys related to the "Report on the Italian system of freight in 2012", the maximum length of the train admissible does not exceed 600 m.

Even more serious is the limitation that exists outside the freight village system, along the railway network, because in many places can not travel trains with a length of more than 450 m.

For this reason, the freight operator have shown the need for a greater focus of resources to overcome bottlenecks on the existing internal and external network freight village system (due to the length of the tracks within the stations, to the limits of shape, slope of the rail network, transit times, etc ...).

On one hand there is the need to complete and to make efficient intermodal terminal, thanks to the use of instruments of public-private partnership, the other is necessary to focus interventions on the rail network in order to give priority to those that make fully operational.

Such interventions are often linked to small projects and spending that produce however a high social return.

2. The Dutch model: "Transport Centres".

To date, the area that is most attractive and should remain so 2018 is the area of Venlo, in the southeastern part of the Netherlands, on the border with Germany.

Because of its location the logistics area of Venlo (in which there is the Venlo Trade Port, which covers a total area of 8 million square meters) can take advantage of the direct connections with the ports of Northern Range, with the main airports in surroundings and some of the major industrial areas of Europe.

Considering connections with the ports, the Venlo Trade Port can indeed exploit a direct connection with the port of Rotterdam, thanks to a daily shuttle service, in addition to interconnections present the ports of Antwerp and Amsterdam.

This area also can take advantage of one hand connections with the international airports of Amsterdam (one of the largest airports in Europe), Maastricht/Aachen, Dusseldorf and Antwerp, other part a direct river connection by opening of the new river port on the river Meuse, one of the largest navigable rivers of Europe.

The success of this area must therefore be attributed to the ability of local authorities to develop, since the late 80s, the potential of the area in terms of location.

It is then formed a dense series of direct links with the main traffic junctions of the area, using all modes of transportation exist.

4. The German model: "Gunterverkehrszentren"

In Germany there is a branched freight village system consisting of 34 facilities, 21 of which belong to the DGG, a limited liability company founded in 1993 to represent the common interests of the different structures.

In particular, the DGG works to promote and enhance the German freight villages by supporting the cooperation between the different structures.

The typical areas in which the company operates are: the creation of new intermodal connections between different logistics centers, the harmonization of standards of services between different areas, and the development of sustainable models of logistic center.

Cooperation that can create the DGG is one of the characteristics of strength of the model freight village German.

On average, logistics centers in Germany occupy about 2.1 million square meters, however presenting a marked variability.

The freight village is in fact smaller Herne, with 230,000 square meters, while the largest is to Leipzig with 6.75 million sq. m.

German structures appear to be so, on average, larger than Italian.

At the same time the German logistics centers enliven a greater number of TEUs within their the terminal.

In particular, in 2009 the German freight village system handled 2.3 million TEUs.

Compared to the Italian system, the German logistics centers can take advantage of a rail network with fewer bottlenecks and with the possibility of passing trains with modules up to 700 m over much of of the network.

Also worth highlighting a greater presence and interest of Deutsche Bahn regarding the rail freight market, compared to the corresponding Italian one.

One of the main German logistics centers (along with the GVZ Bremen indicated by DGG as the best in Germany) is the logistic center of Nuremberg ("Bayernhafen Nurnberg"), located in southern Germany.

This structure can play, thanks to its location, a gateway for South-Eastern Europe, taking advantage of its position between the ports of the Northern Range and the Mediterranean ports.

The Bavarian guest receives flows from the Mediterranean ports and ports in northern Europe, being substantially midway between the two seas.

The freight village is also located in one of the most attractive logistics of Germany according to the classification made by Prologis.

The Intermodal is managed by a company totally public.

In particular, 80% of the shares is held by Bayernahafen GmbH, in turn 100% owned by the State of Bavaria.

The remainder of the shares are held by the City of Nuremberg (19%) and the neighboring town of Roth (1%).

The area covers a total area of 3.34 million square meters and houses inside the structures needed to develop freight transport in three different ways: road, rail and river.

The rail terminal, in particular, covers an area of 160,000 square meters and can receive trains with a maximum length of 700 m, with a handling capacity of 480,000 TEUs of cargo a year.

In 2012 TEUs handled amounted to 65% of total capacity, reaching 312,000 TEUs, with an annual increase of 9.3%.

In addition to the terminal, the rail infrastructure of the logistic center include 50 km of tracks that connect it to the connected warehouses and the river port.

The latter is built on two basins, directly adjacent and connected to the Main-Danube Canal.

The first basin has a length of 1.190 m, while the second is about half as long (565 m).

The two basins have received in the course of 2012 479 boats.

Thanks to these structures the logistic center was able to move in 2012, on three different modes of transport, about 15 million tons of goods.

5. The Spanish model: "Zonas de Actividaedes Logisticas"

The Spanish model has always had an approach "road oriented" which has always favored the road transport at the expense of rail.

This choice by Spain is partially dictated by the poor infrastructure of the railway network.

For this reason, in many cases the Spanish center are very close to the concept of traffic center, where little space is left to intermodal.

Another problematic network freight village Spanish, partly also in the Italian system, is the lack of a strategic vision and long-term, he sees the different structures as integral parts of a single organ system.

The planning of facilities in Spain was mainly influenced by the logic of type localist and regional.

An attempt at coordination was carried out by the association of Spanish freight villages (A.C.T.E. – Asociación de Centros de Transporte), founded in 1991 with the goal of creating more partnerships between the different logistic center and share information and knowledge related to the transport sector.

In this regard it is important to underline that, one of the main structures within the most important logistics area of Spain (the area of Madrid) is not proved associated ACTE.

The Puerto Seco de Madrid is part of the freight village near the Spanish capital, along with the Centro de Transportes de Coslada and the Centre de Cargo Aerea de Madrid Barajas.

These three structures develop strong synergies forming a single logistics system.

At about 40 kilometers from the capital is also present the Puerto Seco de Azuqueca, unique structure associated with ACTE area.

The Puerto Seco de Madrid is managed by a wholly public, it is controlled to 25% by the Comunidad de Madrid, to 13.08% by SEPES (Servicio Público de Empleo Estatal), for the 10.92% by the municipality of Coslada, and to 10.2% respectively by the Ente Público Puertos del Estado and port authorities of Algeciras, Barcelona, Valencia and Bilbao.

This corporate structure underlines how the mission of the structure is to support the network of Spanish ports and promote the area of Madrid.

The Puerto Seco consists of a railway terminal covering 140,000 square meters, which has developed since 2001 connections with the ports of Algeciras, Barcelona, Bilbao and Valencia.

In 2011 the Puerto Seco de Madrid has handled over 100,000 TEUs, almost all from the port of Valencia.

Next to Puerto Seco is present, as mentioned earlier, the Centro de Transportes de Coslada covering over 1 million square meters and provides logistics services for located companies.

6. Synthesis of the success factors

The analysis of the case studies in Europe highlights two key factors for the success of a freight village, as well as the individual structures that compose it.

First, it is essential to a strong coordinating role, able to form partnerships between the single logistics centers in order to create stable intermodal connections and sharing of successful practices, well as to develop a standardization and harmonization of services.

This can be partly carried out by a trade association or a company (as in German), but also the central government must give a strategic planning long-term.

A second key feature for the success of the freight village areas is the ability to develop intermodal traffic.

This feature, to the success both the area of Venlo, both Interport Nuremberg and logistics area in the suburbs of Madrid, is able to use, in addition to road transport, also the rail transport, in the first two cases, on the river, exploiting the connections with important airport facilities.

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Conversion proposal for the disused narrow-gauge railway track "Athens-Corinth-Patras" and its ramifications*

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Abstract: The need to abandon narrow-gauge railway systems has often led governments to define new paths. The track wrecks are frequently an invaluable asset for their strategic position with respect to natural resources and to meet the strong increase in demand for alternative mobility.

A case of particular interest in this scenario is represented by the former narrow-gauge railway track "Athens-Corinth-Patras" and its ramifications. The principal objective of this paper is to demonstrate that the reuse of this track is eligible to be a strategic plan with respect to the emerging demand for cultural and eco-friendly tourism.

Research is also aimed at making feasible a linear park for renewable energy production. Conclusions are drawn that proposed system is capable of managing the proposed railway reuse through the adoption of a master-plan, the realization of specific parts, and restoration of existing structures also through episodic projects.

Keyword: Conversion Greek Disused Railway Track

1. Introduction

In developed countries, particularly in North Europe, a strategic management of mobility has been representing for over half a century one of the fundamental conditions for sound territorial governance. Recently, transport systems characterized by low environmental

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impact with regard to Greenhouse gas (GHG) emissions and those that offer good functionality associated with lower costs in urban areas, have been associated with conventional transport systems. A political trend that supports alternative modes of mobility such as walking and biking has emerged. Also the European Union has officially recognized the importance of cycling as a practical mode of urban transport, generating environmental, economic, and health benefits (EU DG Transport, 2004 and Pucher and Buehler, 2008). From an economic viewpoint investing in the bicycle is very cost-effective. Cycling can improve a city's quality of life and environmental quality and hence attract individuals/business, benefiting local economic performance (Velo, 2003). In terms of efficiency, in urban areas the bicycle averages 15-25 km/h often faster than the car/public transport (ECF, 1993). But the focus on the environment and efficiency cannot be considered the only components of the growing demand for cycling.

It is also the result of a new urban culture asking not only for physical accessibility but also the possibility to enjoy the environment and interact with other social groups. A new trend has taken place in many cities (I_ce, 2000) by reclaiming a continuous public space network and recognizable nodal points capable of permitting safe and quick movements without recurring to conventional mobility systems and allowing the most vulnerable categories of citizens to re-appropriate the urban space (EC, 1999). It calls for protected routes for pedestrian and bicycle use, secure against the risk of accidents with cars, capable of allowing people to meet or benefit from public services. These needs are a central task and the implementation of new urban systems should not only reserve channels for this new type of mobility but also consist of an alternative mobility network. Alternative mobility systems become important on the close relationship with public space system and interaction with networks of traditional transportation.

The new pedestrian paths run through the city and the suburban area seeking the constant relationship with both the more socially attractive and representative locations, and with the nodes of modal shift through which other types of transport can be used. The issue

concerns therefore not only urban but also metropolitan areas but with longer distance cycle routes (so called LF-routes) that allow to connect sites of interest for relaxation, culture, sport, or just move along routes and recreational networks. It is now clear how the actions of territorial marketing must increasingly take into account the demand for more sustainable mobility, the desire to move with freedom and with slower and direct contact with the context, to be able to access easily to sites of environmental value. A specific demand has emerged to which all tour operators and local authorities know they have to give an adequate answer. As noticed by (Legrand and Sloan, 2007) the owners of tour operating companies should take into account the importance of marketing the sustainable component of cycling tourism. For many bicycle tourists, this creates a double 'feel-good' factor; (1) undertaking an activity with relatively low negative impact on the environment and (2) undertaking an activity which involves visiting new places, enjoying nature and improving health and well-being.

This mode of mobility through the territory is not alternative to the conventional one based on the use of public or private transport, and indeed the relationship between the two modes is synergistic: the presence of a fast system that can take advantage of highways, arterial roads or a railway line increases the possible use of alternative circuits for mobility. Bicyclers and walkers receive strong incentives from the possibility of quickly moving from one context to another. It is widely known Northern Europe has long since developed a bicycle and pedestrian tourism supported by efficient transport services: users can reach a bike path starting point and follow the route of interest until they reach a place where they can rest and already have their luggage delivered. They can travel different distances depending on their physical ability, knowing that they can easily interrupt the excursion, returning to the use of traditional means of transportation.

The coexistence of different systems thus facilitates access to alternative and sustainable mobility systems, reassuring users and generating a number of opportunities for the development of commercial and dwelling facilities along the routes. The creation of a path for this type of mobility is relatively simple because it has no

need for large road sections or expensive pavement systems (ECF, 1993). Conversely, it may produce the development of new and interesting urban economies linked to the new demand for facilities and accommodation (CTC, 1993). This data can be of great interest for local governments because low-investment programs may trigger virtuous processes for the economies of small residential areas (Legrand and Sloan, 2007). From a programmatic and design point of view is evident that the possibility of using existing paths is a priority, where possible. In this framework paths that are available due to the disposal of other functions assume a particular interest. Throughout Europe in recent decades, most of the processes of urban regeneration have been substantiated by policies and plans for the recovery and reuse of brownfield sites and areas occupied by old infrastructure (roads, highways, ports, railway stations). A case of particular interest has become the re-use of abandoned railway lines which are almost always in a valuable relationship with urban settlements and other land resources. Some examples are: The National Cycle Network in UK; the "Alps Mobility" project I and II; The RAVeL project in Belgium; the "Plan d'Itinéraires Communaux verts" funded by Walloon Government; Modena-Vigliola, Cortina-Dobbiaco; Rocchette-Asiago, Caltagirone-San Michele di Ganzaria, Trabocchi Coastal Park in Italy. For a detailed overview of these projects see (La Rocca, 2010). This paper examines the case of the Greek abandoned railway line Athens-Corinth-Kiato-Patras and two branches in the region of the Peloponnese. More specifically this study presents the overall methodology and the contextual analysis from Athens to Corinth.

2. The old railway line Athens-Corinth-Kiato-Patras and the Peloponnese

In 1835 an iron railway was contracted by the Greek Government to run from Athens to the Pireus (Jerdan et al.1835) but the construction of this metro-gauge railway network (1067 mm) began in 1869 and has been developing up to 1885.

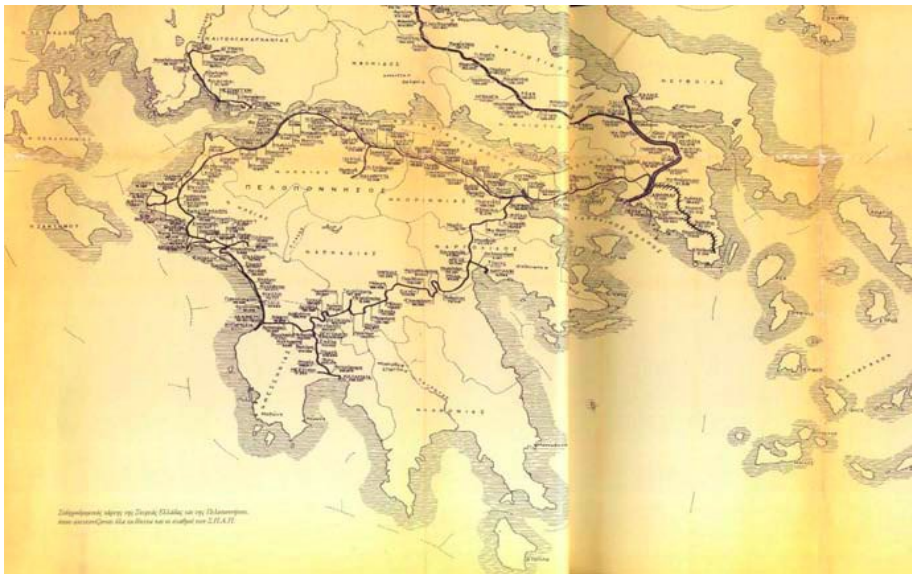

Figure 1 Railway network of Greece.

The complete railway network was completed in 1918 (Athens to Thessaloniki tract - standard gauge track).

Originally the Greek Government had to deal with the construction of the line with very limited funding available and this has influenced the choice of a narrow gauge system and a path as much as possible adapted to the topography of the crossed territories, in order to limit the number and size of the necessary works and accelerate construction time. However, despite this system characterized by low technical costs, an acquisition program of large areas was associated. Not only area needed for the construction of the line but also significant extensions of land were acquired to allow the proper development of stations and deposits. According to data extracted interpreting maps delivered by Hellenic Railways Organization (OSE) the total amount of land of the tract Athens-Corinth-Kiato-Patras accounts for over 757 hectares on a total length of 230 km.

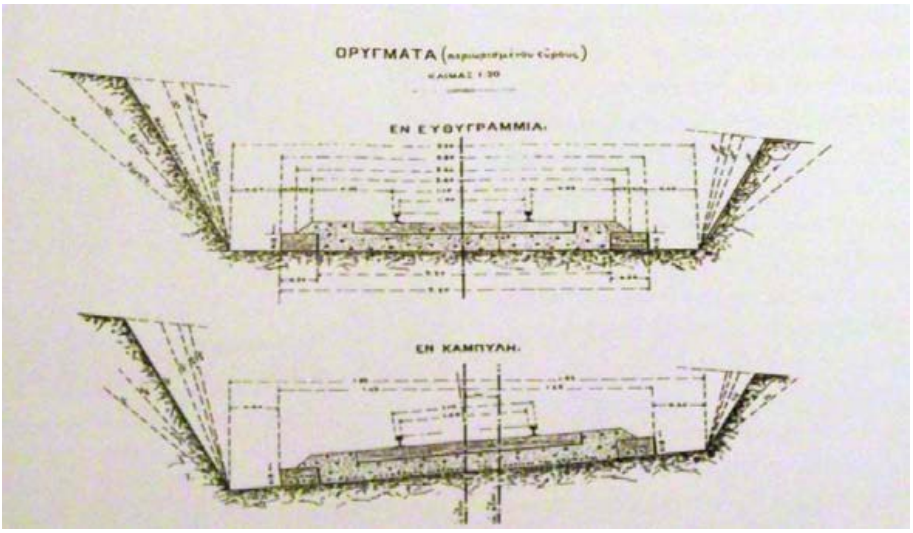

Figure 2 Typical cross-section of the narrow gauge railway.

From Athens, the line runs through areas rich in attractions, in a close relationship with valuable landscapes. Sites of great archaeological interest, beaches and bays attractive for tourism development, urban settlements that already offer accommodations and open areas suitable for new developments gravitate around this path. Urban crossings are characterized by an intimate connection between tracks and local roads, while the old stations are often valuable for areas to recover and enhance their centrality. The potential is enormous and can certainly be used gradually, over the long term. The recovery of the old railway line now appears as a major structural choice of national interest for several reasons. The decision to allocate the space of the disused railway line to a great artery for sustainable and alternative mobility would provide a major new attraction to the tourist demand.

This choice could be addressed with relatively low cost‡but with the certainty of a great impact on the environmental and cultural tourism. As observed in the detailed study on the characteristics and operational possibilities of the railway path, the transformation may involve separate lots and tracts easy to integrate.

Considering a medium cost to dismantle tracks and sleepers

(transport to special disposal sites included): 20 euro/m; Value of the tracks: 0,3 euro/kg; medium weight of rail tracks: 63,14 Kg/m (2*31.57 Kg/m): the overall cost to dismantle the old infrastructure breaks even (Source: European Standard tender documents).

It should be noted that The CYRONMED project (CYclo ROute Network for the MEDiterranean) founded by the European Interreg IIIB Archimed (Mediterranean Archipelago) has already addressed the possibility of establishing a network of cycle routes in Greece (also a coastal path Athens-Patras). This project, however, planned to use existing roads and interruptions in the path. For example, to prevent passage in the industrial area of Elefsina and Aspropyrgos, a path by ferry through the island of Salamis was planned. Our study takes in great consideration the results of CYRONMED research but argues that the existing system of roads may be used only minimally for bicycle and pedestrian use. It is observed that where the size of road is compatible with the pedestrian use; (1) unsafe conditions persist due to lack of security areas and (2) roads often pass through areas of little interest to tourists. Deviations are necessary, which often use impervious and not very interesting paths for recreational tourism.

3. Potential recovery and valorization characteristics

It has been speculated that the reuse of the first traits might relate to the area surrounding Athens and Corinth to be subsequently increased up to the reunification of the sections and then extended to Patras.

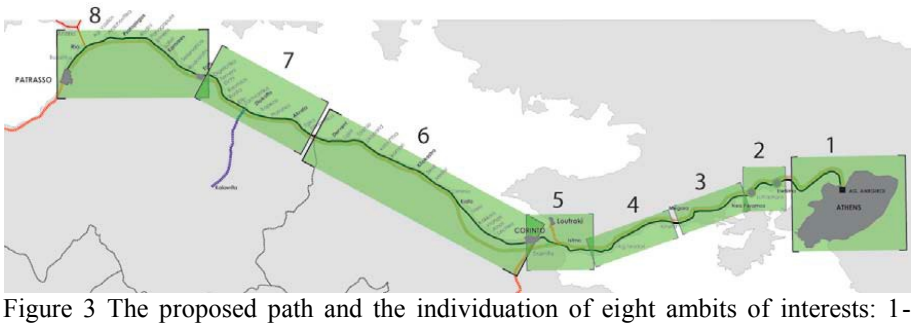

Figure 3 The proposed path and the individuation of eight ambits of interests: 1-

urbanized area (Ag. Anargiroi); 2- industrialized area (Elefsina; Aspropyrgos); 3- Landscape values (Nea Peramos; Megara; Kakia Skala); 4- touristic area (Kinetta; Agii. Theodori); 5- Corinth and Isthmus; 6- archeological interest (Lechaion; Derveni); 7- Touristic interest (Derveni; Aegio); 8- Connection and infrastructures (Derveni; Patras)

The alternative connection between the two great gates of Athens and Patras would be thus realized, without ignoring the potential expressed by the port of Corinth located in the middle of an area rich in attractions and equipped with a large and disused site. This port, in the intentions of the City and the new regional government (see the recent declarations by the Governor Petros Tatoulis), will be re-developed through the project of our team. With its transformation into a Marina, open to public life, it could quickly become the engine of new economies and enhance the entire area of the Isthmus.

Possibilities of increase in value of real estate in a consultation framework led by local authorities and the State, would involve private capital investment in a mutual interest. Within the Peloponnese, the recovery of abandoned railroad track, offers several interesting possibilities as well. Territories of rare beauty and attractiveness together with towns and villages of great interest already famous (Kalamata, Navplio) are involved. Here the intervention typologies may be more complex by providing, even the restoration of a local railway line or otherwise the realization of tracts accessible to low or zero impact public transport vehicles.

4. The energypark

The concept of sustainability, inevitably linked to that of an alternative form of mobility, leads to the evaluation of the possibility to integrate the railway track recovery with systems based on renewable energy sources. The length of the line (230 km from Athens to Patras), its broad width (12 m minimum width that Kakia Skala; 357 m maximum width at the Corinth old station; 20 m average width), the issue to offer the traveler a protection against excessive sunlight, the continuing need to achieve a proper insertion in to the

landscape, determine that the solution to be associated with the new circuit should be based on solar power harnessing systems. High costs of construction and maintenance and the possibility of linear interruptions in case of elements rupture, make unfeasible a widespread use of photovoltaic panels. Specifically a comparative cost-benefit analysis showed the suitability of a linear system of solar parabolic troughs in order to achieve a continuous structure for the selected traits. The structure (see Figure 4 (a)) would be raised from the ground not impeding the use of cycling and pedestrian path. Indeed, as previously mentioned, parabolic trough would also serve as sun shelter for users of the route, encouraging utilization especially during summer. This technology uses a circulation of diathermic oil in a Dewar tube. Sunlight is reflected by the parabolic mirror (Area:15m; Length: 4m; width: 3m) and concentrated on the Dewar tube. Heat transfer fluid runs through the tube to absorb the concentrated sunlight. The heat transfer fluid is then used to heat steam in standard turbine generators (four in total). This solution would also offer the advantage of a long-term durability of panels (more than twenty years) and a relatively simple maintenance that, in cases of necessity, could provide for the isolation of defective modules without compromising the overall functionality of the linear system.

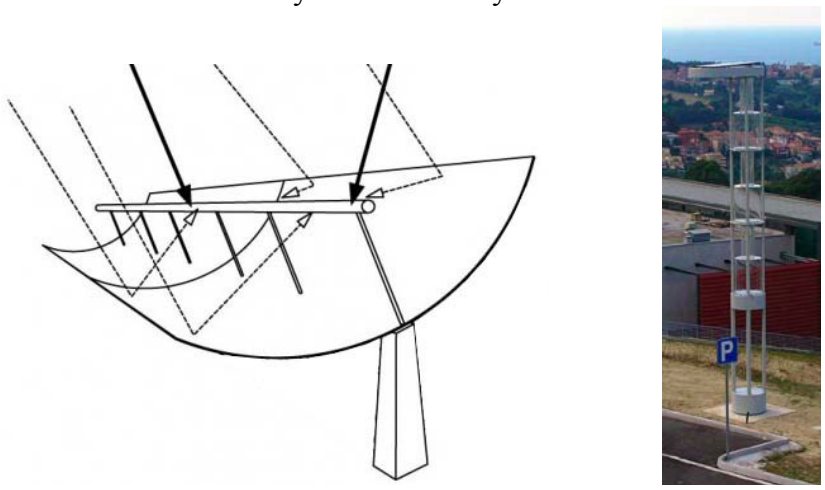

Figure 4 (a) scheme of a parabolic trough; (b) “Generator” installedat UNIVPM (Ancona, Italy)

In urban areas, Solar Road technological solution appears to be the most interesting and innovative: Solar Road is a TNO (www.tno.nl) idea road that doubles as a solar panel. The very special combination of the set two functions enables the solar energy to be captured and converted into electrical energy within the space that is already being used byroads. The cycle path is constructed of concrete elements measuring 1.5 by 2.5 metres and contains a glass top layer. Beneath this one cm thick hardened glass layer lie crystal silicon solar cells. The anticipated annual electricity generation is estimated around 50 kWh per square meter. This solution would be particularly suitable in environments where it is important to have an open field of view or in suburban areas where it is particularly delicate the relationship between new installations and the surrounding landscape. The illumination of the track could be overcome by using innovative LED lighting masts called "Generators"[1] (see Figure 4(b)). These elements (height: 8 m, cross section: 0.90 m) have the ability to take advantage of both wind energy through vertical axis turbines and sun energy using photovoltaic panels. They are battery powered so they have the twofold ability to illuminate the path if not connected to the network or to transfer the energy produced when connected to the old electrified railway routes. Assuming an ability to capture solar energy of 7 hours per day, in one year a single mast can produce 2,2 MWh, the equivalent of average annual consumption of two people. Given that the masts can be placed at a distance of 8 m, the possibilities of application are very interesting. A pilot application is currently being implemented by a consortium (TNO, Ooms, Imtech, PNHin) in Noord-Holland at N203 at Krommenie.

5. Methodology

The study was initially focused on the recognition of territorial characters and opportunities. Then geographical areas with particular characteristics were identified, cataloging the environmental contexts, attractive or potentially attractive areas, intersections with other

infrastructure and penetration in urban areas, as synthesized in Annex A. Distance and feasibility criteria were taken into account, with reference to possible longer routes or more related to local life and the small radius (see Figure 6-7). The result is a rich and complex vision that has been organized into eight ambits with a degree of unity and recognizable by the prevalence of the specific thematic characteristics (see Figure 3).

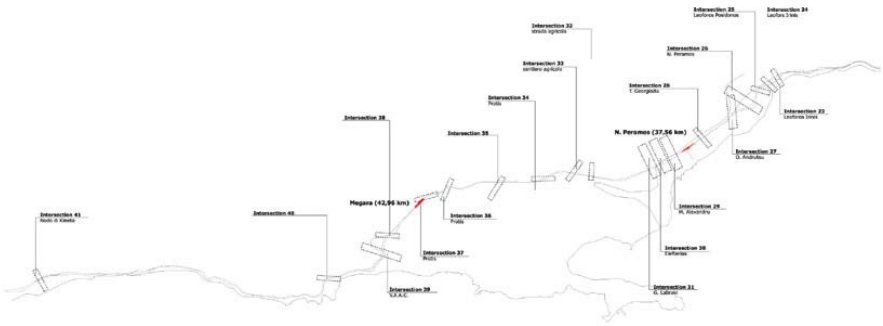

Figure 5 Ambit n° 3

Stations, connections and nodal points. Functionality of these areas would be enhanced by a series of minor innovations on existing transport systems and the development of some junctions at the intersection with paths leading to more distant but always attractive destinations.

These could be at the same time both rest areas equipped with small hotels and commercial facilities, and intermodal nodes exchange nodes connected with dedicated lines to reach more distant destinations, or simply to connect with the new highway or train line (in the case of the Athens-Corinth tract).

Figure 6 Explanatory situation of proximity of the old railway line to tourist areas

Figure 7 Possible routes related to local life:
1- pinewood; 2- olive groves; 3- agriculture fields; 4- old station; 5- new station; 6- marina; 7- sport facilities

All the attractive areas within that territory are of great interest both for the richness of the natural environment and for the

importance of archaeological and historic sites. In addition, some urban nodes enriched by the presence of special areas (such as abandoned stations), give an idea of the possibility of real estate development programs of a certain significance which public interests and private investment could be embodied. The case of the former railway station in Corinth is the most obvious. The presence of important characters such as the urban centrality, proximity to the port and the areas connected with it, the ease of access from the highway and the new metro line are present. It is clearly a great asset that could play a crucial synergistic action with programs related to the renovation of port facilities and those for the enhancement of the Canal and the entire coastline, from the ancient port town of Loutraki to Acrocorinth.

6. Conclusions

The study has highlighted the possibility of realizing at low cost and low environmental impact a significant territorial infrastructure. The recovery of the disused railway track Athens-Corinth-Patras and the Peloponnese would provide a sustainable and economically feasible infrastructure in a territory in which most interest focuses on national and international tourism. This transformation is possible not only because of existing attractive resources, but also the possibility to define a -Year Programme of Work (MYPW) for the progressive program implementation. Of particular interest is the proposal to use some suburban traits to develop linear energy parks with a twofold purpose: an attractive investment in terms of performance and a system of shading and weather protection. It remains to stress that the overall theme offers versatile and complete set of intervention programs also very limited in size which allows involvement of people and economic actors. The effects that would result from the implementation of the programs described are the following:

- Improvement of the overall tourist image of Greece through sustainable programs;
- the increase of environmental tourism interest by offering an

interesting path both for the short and medium range;

• Rise in value of real estate properties-especially in urban areas-currently abandoned and degraded. It should be emphasized, however, that such properties would have a relatively low interest in the market if not included into a strategic vision and so they can attract major investments, even at international level;

• The spread of a secondary effect of renewed interest at the social and small-business level, with a stimulus for new investments.

Notes

[1]Progetto Industria 2015, copyright UNIVPM Università Politecnica delle Marche. Director prof. Renato Ricci

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Social Housing as an instruments for urban regeneration and for combating poverty and social exclusion*

Gianmichele Panarelli[1], Clarissa Di Tonno[2]

Sunto: Combattere la povertà e l'esclusione sociale è uno dei principali obiettivi dell'Unione Europea e degli Stati membri.
Le migliori politiche dirette a rafforzare il Social Housing, hanno un duplice obiettivo: assicurare l'inclusione sociale e avviare processi di rigenerazione urbana in interventi di recupero e nuova costruzione in una ottica di sostenibilità ambientale e con costi contenuti. Quanto sopra viene riassunto in quelle che dovrebbero essere le "politiche abitative".

Parole Chiave: social housing, rigenerazione urbana, povertà ed esclusione, politiche abitative, efficienza energetica

Abstract: Combating poverty and social exclusion rank among the main objectives of the European Union and its Member States. The best policies, directed at strengthening the social / public housing, have thus a double objective: to ensure the inclusion (combating social exclusion) and to start processes of urban regeneration (both for new buildings and restoration interventions) also in green building at low costs. The above is summarized in what should be the "housing policy".

Keyword: social housing, urban regeneration, poverty and exclusion, policy, energy efficiency

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*Invited paper

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Introduction

Poverty and social exclusion are key issues for a reflection on the development of the contemporary city that determine the lines and the prospects of the housing policy. The work done by Panarelli and Di Tonno focuses on the European situation of social phenomena with reference to the recommendations of the European Union for funds programming 2014/2020: case studies are exemplified to show the effects of the processes of design and construction in relation to housing policies.

The Social Housing is understood as cultural status which can accommodate instances of contemporary society and this match projects, to give coherent answers and technologically aware.

The history of human settlements imagines the city made up of housing and services but are residences that form the connective tissue of the city itself.

The culture of the modern industrial city has replaced the historical urban zoning, the distinction between residential areas, industrial, or other.

The residential building has been and continues to be the structural component of tissue systemic organizing the habitat. Today an effective housing policy has to deal with new questions of social policy and economic policy. Designing interventions must take note of these factors and organize reform strategies through an evolution socialeper overcome 'backwardness of production, technology and culture that fostered waste and annuities speculative and prevented the construction of housing at a lower cost with better quality.

The configuration of the housing, social, political, cultural, economic system, often have not been matched in a coherent structure of the material configuration which is the financial structure, technological and structural interventions, in our time. The involvement of factors such as discomfort, poverty and social exclusion, access to Social Housing and exclusion from the Social

Housing, are inevitable issues for a dialectical process of urban regeneration with the dynamics of the housing system.

1. Poverty and social exclusion

Poverty is commonly defined in two ways[1]:

Absolute poverty is generally used in the context of less developed countries, and is characterized by deprivation in respect to a range of basic human needs.

Relative poverty is more commonly used in the European and US context, and is usually specified in terms of income (or access to/consumption of, material resources) below a minimum acceptable level.

Social Exclusion is a more complex, multi-faceted concept. Many would argue that it includes poverty within its broader definition. It may be distinguished from the more specific concept of poverty in a variety of ways:

It tends to characterize *groups*, rather than individuals.

It relates not only to income or physical wellbeing, but also to *inclusion* within various aspects of society, including the labor market, administrative systems, association and community, institutions and democracy. These are sometimes referred to collectively as "normal citizenship".

It is essentially *relational*, whereas poverty concerns distribution of resources. It is conceived as a dynamic social and economic *process*, rather than a state, or an arithmetic calculation.

It seems to have originated in a French discourse during the 1960s and 1970s, and has been more influential across "continental" Europe, (whilst poverty is a more commonly used concept in the UK and Ireland).

Poverty and Social Exclusion: It has become conventional in the context of EU policy to combine both of the above concepts, and thus avoid the difficulty of drawing a line between them. It is important to recognize, however that such a formulation introduces difficulties in some contexts. For example in the wealthier Member States the

groups which may be identified as experiencing exclusion cannot easily be conceived as being in poverty. On the other hand, in some of the less prosperous parts of the New Member States it may be argued that poverty may be ameliorated relatively quickly, whilst some aspects of social exclusion are more deeply rooted, being, for example, associated with minority groups.

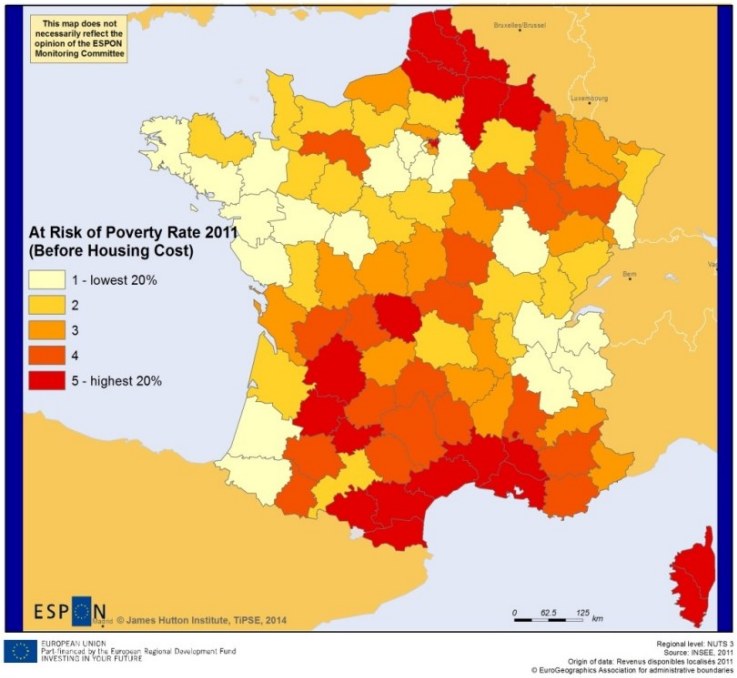


Figure 1. Map at-risk-of-poverty rates (before housing cost), France
TiPSE (The Territorial Dimension of Poverty and Social Exclusion in Europe), Applied Research 2014 in ESPON 2013.

2. What is social Housing ?

Social housing in the European Union[2] is characterized by the wide diversity of national housing situations, conceptions and policies across member states. A variety of approaches are implemented across the EU, in terms of:

Tenures: although social housing is mostly provided for rent, in many countries sale of dwellings is also possible, as well as the provision of intermediate tenures. The latter is the case for instance in the UK, where shared ownership solutions (where tenants buy a share in their dwelling and pay the rent on the rest of it) have become increasingly important. Furthermore in some Mediterranean countries such as Greece, Spain and Cyprus, social housing is provided only or mainly in the form of low-cost housing for sale.

Providers: a variety of actors are involved in the provision of social housing, ranging from local authorities and public companies to non-profit or limited-profit associations and companies, cooperatives and, in some cases, even private for profit developers and investors.

Beneficiaries: while in some countries social or public housing is virtually open to all citizens, with the sector playing a market regulating role and favoring social mix in accordance with local policies, in targeted systems social housing operates separately from the private rental market and only households for whom the market is deemed unable to deliver housing will benefit from it. In some countries eligibility is based on means-tested income thresholds, while in other countries greater emphasis is placed on prioritizing the most vulnerable households.

Funding arrangements: Social housing is financed through a variety of funding arrangements. Financing models vary significantly across countries, ranging from countries where the sector is almost 100% financed by public money to examples where housing providers are relying heavily on debt raised on the credit market. The situation varies according to a number of factors such as the level of maturity of social housing providers, the government's commitment to support the sector, and conditions on the mortgage market. Also the way rents are determined is key to the financial sustainability of social housing, as well as the existence of demand-side benefits.

3. Who can access at Social Housing?

The most common way to define eligibility to the allocation of a social dwelling is the use of **income ceilings.**

The maximum income is set high enough to permit income mixing in some countries including France, Austria and Germany, while it is set at significantly low levels for instance in Italy. Access criteria can also be defined according **criteria of need** (housing conditions at the time of the application: homelessness, unhealthy accommodation, over-occupation, forced cohabitation, etc) and even criteria relating to the beneficiaries and target groups (youths, elderly or disabled persons, families with many children, mentally disabled persons, employees of certain undertakings, etc). (Fig. 2)

The ***eligibility is not always absolutely restricted.***

In Denmark for instance registration on social housing waiting lists is open to anyone. There are nevertheless limits for costs of construction and size of the dwellings, which makes this type of dwellings particularly suitable for certain groups on low to middle income. As a result unemployed people, elderly, single parents, and immigrants are by number largely overrepresented in the Danish social housing sector. Similarly, in Sweden in the allocation of dwellings from public housing companies, no income ceilings are used. This is a consequence of the principle of **avoiding social segregation,** by providing **access to public dwellings to all** segments of society.

In the UK, on the other hand, only a few criteria for registration are defined, except for the place of residence and the link with the municipality. Nevertheless, allocations are predominantly needs-based, and although there is no income ceiling, tend to correlate strongly with. Once registration is completed, criteria of priority are often used to establish the order of allocation to different registered applicants. These criteria aim to guarantee that persons with the greatest needs are served first. Criteria can also vary according to the local needs and gaps in local housing markets, for instance the need to attract **certain types of key workers or professionals**, to provide housing for **students** and **young people** with the aim of revitalizing areas with an ageing population, etc.

Furthermore, many member states implement the option of an entity to allocate dwellings directly according to its own criteria of **priorities.** In most cases this system of reservation is normally

controlled by the municipality, with the overall objective of guaranteeing and accelerating access to social housing for target groups and emergency cases (homeless people, households facing difficulties, low-income persons) in the general context of the municipality's social policy and activities and its legal obligation to provide housing for excluded persons (Germany, Denmark, Ireland, United Kingdom, Netherlands, Sweden).

4. Accessibility (Housing exclusion)

The deep economic downturn and austerity measures have led to the increase of the levels of poverty and housing exclusion across Europe. The effects on homelessness and poverty seem to be worse in 2011 than in previous years, since the impact of the crisis and the austerity measures seem to have a strong time lag effect. According to the Report on the Social Impact of Fiscal Consolidation from 2011, housing and related services emerge as one area which has been particularly adversely affected by the economic and financial crisis.
This is often reflected in rent/mortgage arrears, increases in evictions, homelessness, growth in waiting lists for social housing**,** demand for homeless services and increased indebtedness in relation to key utilities such as heat and water. The demand for preventive services like counseling on mortgage and debt management as well as tenancy support as also increased in recent years.

As stated by the European Commission, homelessness and housing deprivation are perhaps the most extreme examples of poverty and social exclusion in society today.

The importance of having access to affordable accommodation has been recently highlighted as one of the core factor to prevent and combat social exclusion in Europe. In March 2010 the EU presented Europe 2020, the growth strategy for the next decade that aims at creating the basis for a smart, sustainable and inclusive economy by setting a series of targets to be reached by 2020. The strategy has the intention of relieving at least 20 million people from poverty and exclusion. In this connection, EUROSTAT implemented new indicators

in order to monitor the process and facilitate the evaluation of outcomes. Specifically, the European Union Statistics on Income and Living condition (EU-SILC) is the EU reference source for comparative statistics on income distribution, poverty, social inclusion and living condition at the European level.

Among the EU-SILC indicators, the severe housing deprivation rate corresponds to the share of the population living in a dwelling witch is considered to be overcrowded, while also exhibiting at least one of the following housing deprivation measures: leaking roof, neither a bath nor a shower nor an indoor flushing toilet, or a dwelling considered too dark. On average, 6% of the European population suffered from severe housing deprivation in 2009. Among these, the most affected countries are Romania (28.6 %), Latvia (22.7%) and Bulgaria (18.8%). In the Eastern countries the percentage of population affected by housing deprivation exceeds the 6% except for Slovakia (4.2%). On the other side the best performance were recorded in the Northern countries where less than 2% of population is affected by deprivation in housing (Finland 0.7%, Norway 0.9%, Sweden 0.2%, Denmark 1.3%).

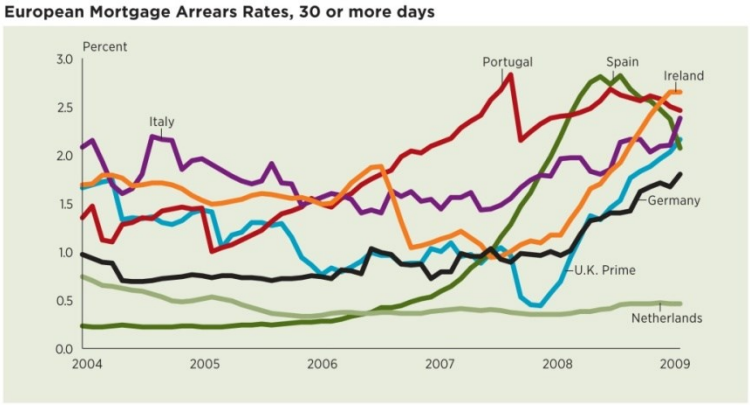


Figure 2. International Comparison of Mortgage Product Offerings Dr. Michael Lea, Special report, pag.30, sept. 2010, Research Institute for Housing America, San Diego, US

TABLE 9: CRITERIA DETERMINING ACCESS TO SOCIAL HOUSING IN THE EU 27

COUNTRY	ELIGIBILITY	PRIORITY	+ RIGHT OF PRE-EMPTION BY PUBLIC AUTHORITIES (IN CASE OF NON-PUBLIC PROVIDERS)
Austria	**Income ceilings**	**Additional social criteria** (for Limited-Profit providers)	By **Federal Provinces and municipalities**
Belgium	**Income ceilings and no housing property** (combined with the household size).	Additional priority criteria based on **urgency of needs**	NA
Bulgaria	**Low-income, no housing or other property, permanent residence in the municipality**	Priority to **special needs + tenants in restituted properties**,	NA
Czech Republic	Varying across different housing types/schemes	Usually priority to **low-income people**	NA
Cyprus	**Displaced families and refugees** + (new schemes) for low-income families, large families, disabled	NA	NA
Denmark	Registration on waiting list **not absolutely restricted**	Priority categories, **based on local conditions**	By **municipalities**
Estonia	People with **low income** and no means to solve their housing needs	Households **most in need**, such as elderly people or tenants of "restituted" homes, disabled persons.	NA
Finland	On the basis of **social needs and urgency**		NA
France	**Income ceilings**	**DALO** established priority access for homeless people and others based on **urgency of needs**	By the **Préfet.**
Germany	**Income ceilings** decided by each Lander.	Vulnerable households **most in need**	By **municipalities**
Greece	**Workers and employees** + special programmes targeting vulnerable groups	NA	NA
Hungary	No central regulation, but usually **income limits and no own housing property**	No central regulations, but usually priority to **families with children.**	NA
Ireland	**Income ceilings**	Social criteria determining vulnerability	NA
Italy	**Income ceilings, occupational or residential link with the municipality**, and **nationality**.	Point system based on **housing conditions and number of dependent children**	By **local authorities, the regions and the central government**
Latvia	**Low-income households**	Priority to **elderly**	NA
Lithuania	**Vulnerable groups**	**NA**	NA
Luxemburg	**Income ceilings and no housing property**		
Malta			
The Netherlands	Varying across regions and municipalities. Currently **income ceilings** apply[38].	**Households on relatively lower incomes**	By **municipalities**
Poland	Varying across municipalities, usually **income brackets**	**Homeless, low-income** families and families who were **evicted**.	By **municipalities**, varying across different types of housing/schemes
Portugal	Varying **according to the different programmes**	NA	NA
Romania	Varying across municipalities, usually **low-income households** + (new schemes since 2009) young professionals and Roma families	**Disadvantaged groups and tenants in restituted properties**	NA
Slovenia	**Income ceilings** (low income but still able to afford rents) and **poor housing conditions.**	**Additional social criteria**	NA
Slovakia	Varying across municipalities	Priority on the basis of need	NA
Spain	**Income ceilings and no housing property**. In addition, disabled people and dependent persons.	Other priority criteria are established by the Comunidades autonomas **on the basis of local situation**	NA
Sweden	Access to municipal housing is in principle **open for all**	NA	In case of serious shortage, the municipal housing company may organize a waiting list, sometimes covering dwellings provided by both private and public landlords
UK	Persons/Households in **need** and with **residential link to the municipality**	Priority to homeless and others based on **urgency of needs**	NA

Figure 3. Criteria determining access to Social Housing in Europe

5. Housing in the new ERDF regulations for 2014-2020

The use of EU funds is determined by the 11 thematic objectives defined by the European Commission in line with the Europe 2020 Strategy targeting at smart, sustainable and inclusive growth.
From these eleven thematic objectives at least four are closely related to housing interventions:

- n. 4. Supporting the shift towards low-carbon economy in all sectors;
- n. 5. Promoting climate change adaptation, risk prevention and management;
- n. 8. Promoting employment and supporting labour mobility;
- n. 9. Promoting social inclusion and combating poverty.

6. Recommendations for national, regional and local level

a) Focus on energy efficiency. Reduce the level of energy usage in individual buildings, it is advisable that when energy efficiency funds are available, problems of deprived neighborhoods are taken into account simultaneously with the energy Dimension;

b) Balanced approaches. Improve energy efficiency, job-creation and social inclusion;

c) Complex integrated (policy) approaches. Inter-disciplinary project management teams; integrated urban strategies; It is important that local authorities get involved in ERDF supported housing projects and take the initiative to put forward housing projects to those developing ERDF program.

Possibility in European Structural and Investment Funds (2014-2020)

Thematic Objective 1 - Research and Innovation, Research and Innovation .

Thematic Objective 4 - Low Carbon Economy, Sustainable Multimodal Urban Mobility; Energy Efficiency Investments; Renewable Energy and Smart Grids Investments.

Thematic Objective 5 - Adaptation and Risk Management, Climate Change Adaptation; Risk Prevention and Management.

Thematic Objective 8 - Employment and Labour Mobility, Employment and Labour Mobility.

Thematic Objective 9 - Social Inclusion and Poverty, Social Inclusion.

7. Case studies (Social Housing)

a) Auxerre - Bourneil (France) 42 houses (< 50 KWh/m^2) in the old city centre (secteur sauvegardé). Atelier Lucien Kroll

Residential energy-efficient realized in the historic Auxerre. The designer, Lucien Kroll, one of the pioneers of the project participated and sustainable, has reconstructed a simple complexity while being in a difficult context, the historical, placing a strong emphasis on typological and to the new needs of energetic character. Lodgings are in fact certified for consumption of less than 50 KwH / m^2.

The project started in 2007 was made in 2009 and 2010. The city of Auxerre initiated a policy design and management of entire eco-neighborhoods and in the outlying areas of the city that in the interventions in the city center.

Figure 4. Design drawings atelier Kroll.

b) Taranto, (Italy). Old city. Policy for social housing

The historic city of Taranto (an island), the Greek foundation sixth century BC with its many historical layers is unique of great historical and architectural importance. Colored in red public property (owned by the Municipality).

Important policy interventions for social housing have been implemented by the late seventies revitalizing some portions of the historic town promoting social inclusion, new housing developments and urban regeneration.

The last 20 years have continued the policies initiated earlier generating degradation and abandonment of a historical and architectural heritage of considerable interest (candidate UNESCO heritage). The parts are very near to

revitalize deteriorated areas and the risk is that (in addition to collapse and abandonment) of a inverse contamination. Degradation could contaminate parts healed. This is a big responsibility policy of non-intervention.

Figure 5. Red , property public property. Photos of parts rehabilitated and abandoned

c) Taranto, (Italy). Suburban district (Talsano)
Interventions (retrofitting) for energy efficiency of social housing

Experimental program in Talsano, suburbs of Taranto, part of an extensive program of redevelopment of the suburbs, funded by the Puglia region. The housing, Social Housing, (owned by municipalities) realized at the beginning of the eighties have serious weaknesses of typological and energy efficiency. The intervention, in addition to improving energy efficiency will redistribute surfaces for a new configuration typological. The new architectural image that will result will also give a new image to the social aspects of the entire district.

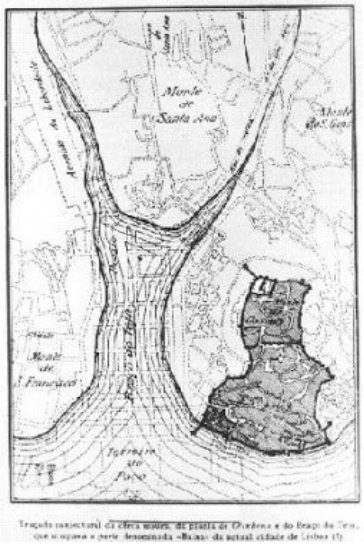
Figure 6 . Photos of the residential complex.
Thermo graphic measurement and hypothesis of project of transformation

d) Lisbon, (Portugal) Alfama Districts

Major urban regeneration interventions are justified by the public interest in recovering obsolete architectural heritage. One of the most significant events for the urban regeneration of Portugal's major cities was decree no. 104/200 of 7th May **2004** which provides the legal framework for creating **public enterprises**, known as **Sociedades de Reabilitacao Urbana (SRUs**) (Urban Regeneration Enterprises) (RSRU, 2004). Sociedades de Reabilitacao Urbana (SRUs) have been promoted by the government and established by municipalities, in order to achieve a focused, integrated regeneration strategy for major cities. (Fernando Brandao Alves et al, 1995)

The **Lisbon municipality** attempted to deal with the degradation of the old central areas by **creating three public enterprises** for the physical rehabilitation of the historic district.

The public intervention in urban regeneration follows a 'top-down' planning approach supported by four national programmes. In addition, the Lisbon's municipality an additional program called Programa **LX--Reabilitar o Centro.**



This program has **three aims**:

1. to rent **housing** and retail units in improved buildings owned by the municipality at 75% of the rental market value;
2. to attract **new residents**, mainly for a young population studying and working in Lisbon;
3. restore **economic and cultural activity**, mainly retail and entertainment to attract peoples back into the city.

Figure 7 . Historical paths of the city of Lisbon

e) Duisburg, (Germany). Integrated urban renewal

The living and housing situation in the northern part of Duisburg has developed further during the last few decades - besides a changed population structure and incisive economic changes such as the loss of jobs, in sub-areas - in particular at the interface with industrial plants - there are also signs of urban planning problems and structural difficulties. The environmental situation is characterised, due to the closeness to industry, now as in the past by high air and noise pollution levels and by little greenery close to the housing areas. Added to this are demographic influences such as the decrease and ageing of the population Consequences of these developments make themselves felt in, among other things, a high level of vacant housing, neglected substance of building structures, a lack of investment and a poor image. Despite all the success in renewal achieved in recent years by the activities within the scope of the 'Socially Integrative City', vacant housing and the decay of building substance is concentrated in those parts of the neighbourhoods Marxloh, Bruckhausen and Beeck situated in the immediate vicinity of industry
The adjustment of the building structures, space structures and infrastructures to changed demand and requirement structures is therefore currently and will, also in the long term, be the central challenge for sustainable urban development policy.

Figure 8 . The neighborhoods of Marxloh,
Innenhafen (Social Housing). Foster + Partners for Duisburg

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Notes

[1] *TIPSE (Territorial Dimension of Poverty and Social Exclusion in Europe*), Applied Research in The ESPON 2013. Programme (*European Observation Network for Territorial Development and Cohesion*), http://www.espon.eu/main/Menu_Projects/Menu_AppliedResearch/tipse.html

[2] *The nuts and bolts of European social housing systems, 2012* Housing Europe Review, CECODHAS Housing Europe's Observatory, Brussels (Belgium), October 2011, p.22

[3] *Investing in the Dutch housing market*, Ministry of the Interior and Kingdom Relations, 2014

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Il servizio sociale tra bisogni e territorio

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Sunto: A partire dalla fine degli anni Settanta, l'organizzazione e programmazione delle politiche e dei servizi sociali cominciano a modificare il proprio approccio alla lettura e al soddisfacimento dei bisogni del cittadino. Il loro principale obiettivo è quello di porre una maggiore attenzione alle nuove esigenze e ai nuovi bisogni che sono in continua evoluzione e riuscire a cogliere, nel territorio, non solo gli utenti che richiedono esplicitamente un supporto da parte delle istituzioni più vicine al cittadino, ma anche l'utenza cosiddetta potenziale. Tale capacità, come avremo modo di spiegare, deve essere maggiormente messa in campo da parte degli operatori del sociale, ossia da tutti coloro che hanno un privilegiato rapporto diretto con l'utenza, al fine di rendere operativo e concreto il benessere della collettività.

Parole chiave: Bisogno, Territorio, Sussidiarietà, Programmazione locale

1. Il concetto di bisogno e le sue definizioni

Definire i bisogni della popolazione è un'impresa difficile oltre che dispendiosa, in quanto la risposta è del tutto prevedibile: non basterebbero migliaia di pagine per elencare la domanda di bisogno pressoché infinita che proviene dalla popolazione. In questo lavoro non si ha la presunzione di voler dare una definizione esaustiva e definitiva di bisogno, tantomeno di concettualizzare il bisogno con una precisa chiave di lettura, come è stato fatto da importanti studiosi.

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L'obiettivo di questo lavoro è piuttosto quello di portare in luce delle riflessioni su come l'emergere di nuovi bisogni, hanno modificato e ridefinito nell'esercizio dei servizi sociali, nuovi approcci e metodi di lavoro da parte sia delle istituzioni sia degli operatori che hanno il rapporto diretto con i cittadini, i quali in un determinato momento della loro vita possono vivere un momento di difficoltà.

Emanuele Ranci Ortigosa precisa il processo evolutivo dei bisogni in questi termini: "Nuove povertà, nuove marginalità, nuova cultura della salute: formule che ricorrono con frequenza per sottolineare che i bisogni sociali sono in evoluzione accelerata e profonda, divengono più complessi, più difficili da cogliere nelle loro manifestazioni e da comprendere nei loro fattori, anche per le crescenti componenti relazionali che li connotano. I nuovi bisogni emergono in luoghi e modi non previsti, non sostituiscono quelli del passato, si affiancano a essi, spesso si coniugano con essi. Il loro carattere problematico rende difficile predeterminare risposte adeguate, offerte da istituzioni e servizi specifici, anche perché tali bisogni possono proporsi dovunque, talora già nella "normalità", e richiedere risposte articolate che coinvolgono nei luoghi interessati nuclei familiari e reti relazionali"[1].

Questo accade perché, in realtà, nel welfare italiano degli ultimi anni siamo stati abituati ad associare al termine *bisogno* una mancanza nello stato di benessere dell'individuo, provocata da fattori economici, sanitari, culturali, sociali, individuali ed altro. Tale associazione comporta una precisa conseguenza, individuabile in una serie infinita di richieste diversificate tra loro e dall'altra parte una risposta contenuta di offerta dei servizi omologati tra loro per aree problematiche; si ritiene pertanto opportuno effettuare alcune precisazioni su come il bisogno debba essere individuato, analizzato e soddisfatto da parte di coloro che lavorano nel sociale.

Un'adeguata conoscenza dei bisogni sociali di un territorio risulta fondamentale sia nella programmazione e gestione delle politiche sociali, sia nel lavoro sul campo, sul caso specifico, nella relazione d'aiuto con la persona che si trova in una situazione di disagio sociale. "In tal modo, nelle funzioni e nei compiti dell'assistente sociale,

esigenze di carattere conoscitivo e istanze di carattere operativo, si vanno mediando in un'ottica di operatore-ricercatore che non solo applica ma elabora anche saperi, intrecciando competenza e abilità scientificamente fondate"[2]. Tale approccio permette di porre le basi per "(…) la costruzione di un sistema di protezione sociale attivo e dinamico in grado di superare il carattere passivizzante tipico del welfare del risarcimento, favorendo la promozione e il consolidamento di un welfare dello sviluppo e delle capacità, fondato su un patto forte e chiaro tra le Istituzioni, associazioni civiche, organizzazioni sindacali, enti non profit ed organismi di rappresentanza sociale, in modo che ciascuna assuma un ruolo costruttivo e non di mera osservazione critica del sistema"[3]. Il compito di tutte le Istituzioni, a cominciare da quelle pubbliche, attraverso un rapporto di affidamento, collaborazione e ricerca, è di garantire una continuità e produttività nell'erogazione dei servizi socio sanitari essenziali.

Per i servizi sociali il bisogno è "(…) il punto di partenza ed ipotetico punto di arrivo, quando soddisfatto"[4]. Ma ancor prima bisogna essere in grado di saper riconoscere il bisogno in modo da creare una trasformazione da un concetto astratto ad una realtà di intervento. Al riguardo è opportuna la riflessione di Isabella Mastropasqua: "Chi si occupa della cura delle persone, dell'organizzazione dei servizi sociali o delle politiche sociali, sa che il punto intorno a cui costruire buoni interventi, buoni servizi e buone politiche è la capacità di analizzare, ascoltare e decodificare i bisogni (…)"[5].

I vantaggi derivanti da una tale conoscenza sono di grande rilievo per la pianificazione e progettazione dei servizi sociali: innanzitutto, essa permette di riconoscere e individuare correttamente i diversi aspetti della realtà locale di riferimento, con la conseguente competenza strategica sui "target" di intervento; inoltre, consente di precisare, oltre alle modalità, anche i costi, i tempi e le tipologie sociali dell'utenza, col risultato di ottimizzare la spesa e, in ultima istanza, evitare sprechi materiali e immateriali. Questo oggi accade con molta difficoltà, nonostante il servizio sociale abbia ampliato i suoi orizzonti attraverso il riconoscimento della professione di

assistente sociale, con precise competenze e abilità e con l'ausilio di mezzi adeguati per intervenire sul campo. L'assistente sociale è sempre di più costretto ad allontanarsi da un lavoro di ricerca, analisi e decodifica del bisogno. Invece, sarebbe opportuno che l'assistente sociale, seguendo le direttive della legge 328/00, imparasse a svolgere un lavoro di ricerca e di conoscenza, sintetizzabile nei seguenti punti[6]:

- conoscenza del territorio
- rilevazione dei bisogni
- rivolgersi sia ad un'utenza reale sia ad un'utenza potenziale.

Tali competenze, oltre ad essere chiaramente indicate nella stessa Legge quadro, configurano con precisione le caratteristiche operazionali e professionali dell'identità di ruolo dell'assistente sociale, che si manifesta attraverso un'agency razionale di tipo scientifico.

"Nelle diverse dimensioni della professione l'assistente sociale non può prescindere da una precisa conoscenza della realtà socio-territoriale in cui opera e da un'adeguata considerazione del contesto culturale e di valori in cui opera, identificando le diversità e la molteplicità come una risorsa, un valore da salvaguardare e difendere"[7]. In tal senso, bisogni e territorio convergono nella rappresentazione idealtipica e perciò rilevante sul piano sociologico, della complessa trama di circostanze, valori, condizioni che determinano e riproducono la stratificazione dei bisogni, i quali meritano pertanto un'attenta e selettiva individuazione.

Tra i punti sopra citati, l'ultimo (rivolgersi sia ad un'utenza reale sia ad un'utenza potenziale) è il più ostile. Giovanni Pieretti solleva al riguardo una riflessione importante per coloro che lavorano nel sociale: "I bisogni del territorio, infatti, sono sempre meno manifesti e sempre meno inquadrabili all'interno delle categorie tradizionali: l'Assistente Sociale deve imparare a raggiungere un'utenza che non è abituata a rivolgersi ai servizi. Si tratta di utenti che, pur non appartenendo spesso a categorie "a rischio", si trovano in una situazione di forte bisogno, magari temporaneo e che richiedono all'assistente sociale competenze comunicative e abilità professionali innovative"[8]. Quest'ultima dovrebbe diventare una sfida nella costruzione delle nuove politiche di welfare, al fine di lavorare in

termini di prevenzione, protezione e supporto al sociale e non mero sostegno nelle situazioni di difficoltà.

2. Mutamento del welfare, evoluzione dei bisogni

Nel welfare italiano - fino alla legge 328/2000 - l'erogazione del servizio ha seguito una logica che si basava sulla richiesta di aiuto, oppure si aveva diritto al servizio se appartenente ad una categoria sociale. Pieretti spiega che "(…) il *welfare* italiano era, fino alla L. 328/00, rimasto l'unico *welfare* categoriale in Europa. Quindi io ti do assistenza se sei minore, famiglia di minore, tossicodipendente, portatore di handicap e così via"[9]. Tale logica viene in parte superata con la *Legge quadro per la realizzazione del sistema integrato di interventi e servizi sociali*, con la quale si supera il Welfare categoriale e si tutela il cittadino al fine di garantire la qualità della vita.

In questi ultimi anni, la società sta attraversando una profonda crisi dei sistemi socio-economici e politici, con una conseguente necessaria ridefinizione dei modelli di welfare in un'ottica di sviluppo e promozione di politiche sociali volte sia al contenimento della spesa che al soddisfacimento dei reali bisogni delle persone. Di conseguenza, la crisi fiscale dello Stato e l'allargamento della forbice tra risorse disponibili e complessità dei bisogni, entrambi conseguenze sia della globalizzazione sia della terza rivoluzione industriale, hanno evidenziato la portata della crisi del Welfare State e il suo conseguente "fallimento" (nel senso di failure)[10].

In questo momento storico, il Welfare State è diventato uno Stato con un approccio di tipo assistenzialistico, connotato da una politica basata essenzialmente sull'elargizione di contributi, non più sostenibile nell'attuale sistema economico-finanziario.

L'alternativa al Welfare State, tuttavia, non può essere il disimpegno pubblico: occorre iniziare a guardare la realtà in una nuova prospettiva e porre le basi per lo sviluppo di un welfare *generativo,* fondato sulla solidarietà e sulla sussidiarietà.

Si delinea la necessità di costruire un modello di welfare che sia "(..) in grado di rigenerare le risorse già disponibili, responsabilizzando le persone che ricevono aiuto, permettendo di conseguire un maggiore rendimento degli interventi delle politiche sociali a beneficio dell'intera collettività"[11]. Va, infatti, superato un modello di welfare basato essenzialmente su uno stato che incamera le risorse per poi distribuirle tramite il sistema fiscale e i trasferimenti monetari. Si delinea il profilo di un welfare in cui anche il cittadino è chiamato a compiere scelte responsabili, attraverso un maggiore coinvolgimento nei processi decisionali; ciò implica indirettamente, una consapevolezza sulle risorse del territorio e un "relativo" riscontro, da parte dei cittadini stessi, dell'efficacia dei servizi erogati.

Il cambiamento del quadro socio-economico ha reso necessario, innanzitutto, ridefinire il ruolo dei cittadini, soprattutto a livello locale, ovvero all'interno dei processi di programmazione dei servizi alla persona: i cittadini vengono ora considerati non solo depositari del bisogno, ma anche i soggetti attivi delle politiche e dei servizi sociali, ovvero attori sociali responsabili, insieme ai soggetti istituzionali pubblici e privati, della programmazione sociale: il cittadino è ora un "valore" e una risorsa per l'intera comunità.

L'art. 1 della legge 328/2000 dispone che "La Repubblica assicura alle persone e alle famiglie un sistema integrato d'interventi e servizi sociali, promuove interventi per garantire la qualità della vita, pari opportunità, non discriminazione e diritti di cittadinanza, previene, elimina o riduce le condizioni di disabilità, di bisogno e di disagio individuale e familiare, derivanti da inadeguatezza di reddito, difficoltà sociali e condizioni di non autonomia, in coerenza con gli articoli 2, 3 e 38 della Costituzione"[12]. Ciò significa che non devi appartenere ad alcuna categoria ma d'altra parte la legge 328/2000 sostiene le esigenze di coloro che ne fanno richiesta ed esclude quella fascia di potenziali utenti che per varie ragioni non si rivolgono al servizio.

Scrive Pieretti: "Questo è lo *status questionis*. Stiamo chiaramente alludendo a quelli che Ermanno Gorrieri definisce appartenenti alle cosiddette *povertà silenziose* e naturalmente queste povertà silenziose le si vede soltanto se si va sul territorio e le si

guarda. (…) i servizi non danno niente a questa gente, e non danno niente perché questa gente non chiede niente (…)"[13].

Si comprende bene che la causa di tale mancanza è dovuta alla poca conoscenza da parte degli assistenti sociali del contesto territoriale di cui fanno parte. Pieretti precisa che: "Il lavoro dell'Assistente Sociale al suo nascere è assolutamente un lavoro di territorio; non è quindi un lavoro d'ufficio. È un lavoro di conoscenza approfondita del territorio, senza il quale naturalmente è difficile pensare al reperimento di risorse e di messa in rete delle risorse già esistenti"[14]. È solo partendo dal territorio che è possibile trovare le informazioni necessarie per lavorare su servizi di qualità e con i giusti fruitori, attraverso un canale di comunicazione che faccia sentire a queste persone il soddisfacimento di un loro diritto.

Il modello di programmazione locale, introdotto dalla Legge 328/2000 contempla, infatti, una complessità di interazioni e relazioni tra i diversi attori sociali che operano nel campo della programmazione locale, alle prese con problemi legati anche alla legittimizzazione delle scelte compiute. La suddetta normativa ha orientato il cambiamento della tradizionale programmazione sociale, che diventa relazionale e decisionale, e include i cittadini come parte attiva del processo di programmazione. Tale approccio tuttavia deriva non solo da un'innovazione normativa, ma è frutto di un processo di cambiamento culturale riguardante le relazioni ed interazioni sia a livello politico che sociale.

Anche le politiche comunitarie influenzano, se non indirettamente, le politiche di welfare nazionale. "Benché il welfare resti nella competenza esclusiva degli Stati membri, tale competenza deve sempre di più confrontarsi sia con le politiche monetarie e finanziarie stabilite a livello europeo sia con vincoli di bilancio imposti dalla stessa Comunità Europea"[15].

È opportuno inoltre richiamare altri due importanti processi che hanno interessato negli ultimi decenni l'Europa: "(…) la riorganizzazione territoriale associata alle dinamiche di *rescaling* dello Stato (…); la diffusione di approcci delle politiche che tendono a considerare i territori come risorse, target e attori (….)"[16].

In linea generale, a livello europeo è stato intrapreso un percorso dalle "(…) istituzioni comunitarie (Commissione Europea e quindi Parlamento Europeo) per ripensare i processi democratici, oltre la dimensione esclusivamente partecipativa, per dare quindi attuazione al diritto di iniziativa dei cittadini europei nei confronti della Commissione Europea, previsto dal quarto comma dell'art. 11 del TUE, nel tentativo di ripensare il rapporto tra cittadinanze ed istituzioni a livello comunitario, nella crisi permanente dei tradizionali paradigmi democratici (…)"[17].

Tali processi hanno interessato il contesto nazionale, con significativi cambiamenti a livello di orientamenti e approcci delle politiche sociali, al punto da promuovere la partecipazione attiva delle persone, la quale non implica lo "smantellamento dello Stato sociale", ma una collaborazione e cooperazione tra cittadini e Stato. Ciò comporta un'innovazione del concetto di sussidiarietà: infatti, rispetto al previgente testo costituzionale, c'è "un'inversione" riguardo alla titolarità dell'iniziativa.

"Nello svolgimento di attività d'interesse generale, non sono più le Amministrazioni al centro del sistema, bensì i cittadini *uti singuli* e in forma associata"[18]. In particolare, "(…) il principio di sussidiarietà orizzontale, rafforza il dettato dell'art. 2 della costituzione, riguardo al riconoscimento dei diritti inviolabili dell'uomo sia come singolo, sia nelle formazioni sociali, ove svolge la sua personalità, tracciando un nuovo modo di concepire l'intervento pubblico, il quale retrocede lasciando il passo ai privati, laddove gli stessi siano in grado di realizzare gli obiettivi prefissati"[19].

Il principio di sussidiarietà orizzontale trova oggi una recente "evoluzione" nel principio di sussidiarietà circolare, teorizzato dal Prof. Stefano Zamagni, la cui "(…) idea centrale è che le tre sfere principali della società, quella politico-istituzionale, quella del mercato e quella della società civile (associazionismo, volontariato, mondo del no profit) dialoghino e si facciano carico insieme, ognuna per la propria parte e secondo le proprie competenze, di modi specifici di azione, dei bisogni di Welfare. Questa, quindi, la sfida per realizzare la nuova welfare society"[20].

3. Sussidiarietà e territorialità del nuovo welfare

Il mutamento di paradigma legittimato sia dai nuovi orientamenti politici europei, sia dalla stessa Costituzione Italiana, consiste nel passaggio dalla visione del cittadino come utente al cittadino "alleato del servizio pubblico". Tale nuovo principio deve essere inteso come impegno della società civile a collaborare, soprattutto a livello locale, per cooperare al fine del raggiungimento del bene comune e del benessere della comunità. Viene quindi a definirsi un nuovo concetto di governance: "(...) non esiste un unico modello importabile da altre realtà ma ogni territorio necessita di una elaborazione propria, rispondente alle sue specifiche caratteristiche"[21].

Infatti, il principio di sussidiarietà si basa, in termini generali, sulla consapevolezza e sul riconoscimento dei bisogni sociali e sulla capacità della persona di assumersi la responsabilità di affrontare in modo costruttivo i problemi che la vita pone, operando insieme per raggiungere obiettivi comuni e condivisi. Il principio di sussidiarietà e la dimensione partecipativa della persona trovano attuazione attraverso reali e proficui contributi alle politiche di programmazione sociale. In tal senso, un passo fondamentale è stato fatto grazie all'emanazione della L. 328/2000, che ha disciplinato la partecipazione attiva dei cittadini, il contributo delle organizzazioni sindacali, delle associazioni sociali e di tutela degli utenti", nonché la promozione della solidarietà sociale" e di *empowerment*, ossia di "valorizzazione delle iniziative delle persone, dei nuclei familiari, delle forme di auto-aiuto e di reciprocità e della solidarietà organizzata", considerandoli elementi centrali per la promozione del ruolo del cittadino nella costruzione del sistema locale dei servizi per la persona[22].

Nell'ambito del governo delle politiche sociali, ciò trova piena espressione nell'elaborazione condivisa del Piano di Zona, quale strumento di programmazione strategico, *partecipato* e *territoriale.* Tale atto può essere considerato come la risultante di un processo di pianificazione consensuale fondato su un lavoro di cooperazione, concertazione e condivisione tra una pluralità di soggetti istituzionali e

non, che operano in sinergia tra loro. Generalmente, il territorio è organizzato e suddiviso per ambiti territoriali sovra-comunali o mono-comunali (a seconda anche del numero di abitanti), corrispondenti in diverse realtà locali, ai distretti socio-sanitari, che definiscono la zona della comunità partecipante. "Il piano di zona diventa un *lavoro sociale di comunità* e inevitabilmente risulta coordinato con i programmi di sviluppo economico di una zona o le iniziative di contrasto di una crisi occupazionale (…)[23], rappresentando in tal senso un caso emblematico di *politiche di nuova generazione* tese a promuovere lo sviluppo delle potenzialità del territorio e dei rapporti e delle relazioni tra i diversi attori sociali. Ciò implica la sperimentazione di nuove modalità operative di lavoro, basate sul coinvolgimento, la partecipazione, il coordinamento e il riconoscimento del ruolo dei diversi soggetti interessanti nei processi di programmazione in un'ottica di *governance*, in cui "l'ente locale pur essendo considerato un (…) collante e regista della rete"[24], assume tuttavia un ruolo centrale nella regolazione delle relazioni e delle connessioni tra i diversi soggetti della rete stessa.

La cosiddetta co-progettazione è finalizzata proprio alla creazione di servizi innovativi che rispondano efficacemente ai bisogni emergenti di un territorio, in quanto frutto di un'analisi tra risorse disponibili e azioni da mettere in campo e di un lavoro di valutazione dell'outcome dei servizi già in essere. Tuttavia, dobbiamo ricordare anche la peculiarità dei servizi sociali, ovvero "(…) il fatto che per i servizi sociali la persona sia anche un cittadino, titolare di diritti che devono essergli garantiti, e non un acquirente di beni o servizi che potrebbero anche essergli rifiutati come al cliente del mercato, comporta precise responsabilità dell'ente pubblico"[25]. Tale assunto presuppone che al centro del sistema di programmazione dei servizi sociali ci sia la persona: infatti un "(…) territorio partecipante e partecipato dovrebbe auspicabilmente essere abitato e vissuto da utenti competenti in grado di porsi all'interno delle azioni loro indirizzate con una logica partecipativa e di corresponsabilizzazione"[26].

Più nello specifico, possiamo individuare due livelli di partecipazione e di corresponsabilità dell'utenza, ovvero il primo riguar-

dante il ruolo attivo dell'utente all'interno del processo d'aiuto, nella relazione con l'assistente sociale e l'altro che si esplica nel contributo nella costruzione del Piano di zona, e quindi nella programmazione dei servizi erogati per i cittadini di un territorio. Tale concetto è legato ad "(…) un duplice significato di inclusione, ovvero inclusione sociale e inclusione nelle decisioni, che passa attraverso la possibilità di avere voce nelle decisioni, nelle scelte legate al proprio benessere e a quelle dei contesti in cui si vive"[27]. In quest'ottica, un ruolo centrale nella programmazione dei servizi viene svolto non solo dall'utente, ma anche dall'assistente sociale, quale professionista in grado di "(…) collocare necessariamente il sapere tecnico professionale all'interno del sapere sociale inteso come padronanza conoscitiva ed operativa dei meccanismi e degli esiti dei rapporti sociali"[28]. A livello locale, quindi, uno dei momenti chiave del lavoro di costruzione del suddetto sistema è rappresentato dall'elaborazione del Piano di zona.

La predisposizione e la successiva attuazione del Piano di Zona sono affidati ai Comuni associati, all'Azienda Usl, coadiuvati da altri soggetti istituzionali e attori sociali (quali le organizzazioni sindacali, di volontariato e di promozione sociale, la cooperazione sociale e ogni altra organizzazione non lucrativa presente nel territorio) che coordinano la loro azione per programmare servizi finalizzati al miglioramento della qualità di vita delle persone e alla promozione del benessere sociale della comunità.

I livelli di responsabilità che possono essere individuati sono essenzialmente tre, ovvero quello politico, basato sulla concertazione degli indirizzi, degli orientamenti e delle strategie per la pianificazione dei soggetti istituzionali (Comune o Comuni dell'ambito, Asl, etc), quello tecnico-operativo per la definizione tecnica delle scelte, delle condizioni di realizzabilità, delle modalità di valutazione degli outcome (Ufficio di piano, Uffici competenti dell'Asl, nucleo di valutazione *ah hoc*, ovvero esterno ai soggetti interessati nella programmazione etc.), il livello comunitario, per promuovere la conoscenza e la condivisione dei diversi apporti presenti nella comunità locale, tenendo conto delle specificità degli attori e del territorio (es. *tavoli tematici finalizzati ad un percorso di coprogettazione condivisa).* Tali livelli di responsabilità risultano

essere funzionali per la costituzione del sistema integrato e quindi della rete dei servizi da implementare sul territorio.

Ricordiamo che "(…) la priorità del lavoro sociale è cucire, connettere, costruire consenso (un senso cioè un po' più comune) attorno a quello che si fa"[29]. La partecipazione alla programmazione è condizione e strumento per favorire apporti e contributi ai progetti di interesse comune e per l'organizzazione di servizi efficienti sul territorio, in quanto incrementa il senso di identità, rafforza il rapporto di fiducia e di collaborazione tra istituzioni e i cittadini, contribuendo ad un migliore funzionamento dei servizi stessi. La partecipazione è premessa necessaria per condividere "patti locali di sviluppo della comunità e del territorio", qualificando la cittadinanza responsabile e impegnando ogni attore nelle azioni di promozione del benessere locale.

Presupposto fondamentale per un'efficace partecipazione è l'informazione alle persone, alle famiglie, ai gruppi, ai soggetti comunitari e alle formazioni sociali, relativamente ai bisogni, ai dati socio-demografici, alle risorse di un territorio, intesa come trasmissione di una visione della realtà. Tale comunicazione è finalizzata sia facilitare l'interazione tra istituzioni e comunità locale e la necessaria condivisione di obiettivi comuni, che la conoscenza reciproca degli attori istituzionali e sociali coinvolti, definendo chi fa cosa, ovvero ruoli e competenze. Ciò si esplica, a livello operativo, anche nel lavoro che viene effettuato, nello specifico, per le varie aree di intervento. Prendiamo in esame ciò che è stato elaborato dalla Regione Sardegna, nelle linee guida per l'avvio dei piani locali unitari dei servizi alla persona, per capire quali siano i temi che possono essere oggetto di condivisione, concertazione, confronto tra i vari attori istituzionali e non.

"Ogni area di intervento oggetto di analisi, valutazione e decisione va affrontata utilizzando i seguenti criteri:
- descrizione della situazione di base relativa ai bisogni e all'offerta di servizi;
- definizione degli obiettivi di miglioramento (…);
- descrizione delle azioni necessarie per il raggiungimento degli obiettivi identificati e dei rispettivi tempi;

- quantificazione delle risorse necessarie per la realizzazione delle azioni programmate e loro ripartizione tra i soggetti partecipanti alla realizzazione del Piano di zona;
- descrizione del sistema di valutazione con specificazione dei criteri e delle modalità di verifica e dei soggetti responsabili di realizzarla"[30].

Per poter dare un contributo significativo e costruttivo nell'elaborazione del piano di zona, occorre che gli operatori coinvolti abbiano una conoscenza tecnica e professionale dell'area di intervento oggetto di analisi. In genere, l'assistente sociale partecipa attivamente all'elaborazione del piano di zona, sia quale componente dell'Ufficio di Piano, ovvero lo strumento tecnico che svolge una funzione di supporto all'attività del tavolo di rappresentanza politica, sia ai Tavoli Tematici, ovvero ai gruppi di lavoro suddivisi, a seconda delle competenze e professionalità, per aree e ambiti di intervento, dediti a spazi di confronto e partecipazione.

Un aspetto centrale, che funge da vero catalizzatore di cambiamento nella programmazione dei servizi, è dato dalla dimensione relazionale che investe tutti gli attori sociali, ma in modo particolare gli assistenti sociali. "A monte, influisce evidentemente la tendenza ad enfatizzare la dimensione relazionale della partecipazione stessa, dando un rilievo particolare all'ascolto e alla comunicazione"[31].

La comunicazione, sotto questo aspetto, consente la condivisione delle informazioni necessarie ai soggetti istituzionali e non istituzionali per poter lavorare congiuntamente, ma soprattutto consente la condivisione di idee, obiettivi ed interpretazioni delle diverse realtà, oggetto di analisi, per creare un territorio coeso sul quale è possibile organizzare l'azione comune per programmare i servizi.

Tuttavia, la partecipazione attiva non passa solo attraverso l'utilizzo di specifici approcci, metodologie di lavoro e strumenti di negoziazione, incentrati sulla collaborazione e sul coordinamento di pluralità di attori, ma anche attraverso la conoscenza dei cambiamenti socio-economici, culturali e delle spinte innovative introdotte dalle normative e non da ultimo, dalle nuove politiche di welfare.

Infatti, uno dei punti focali della L. 328/2000 è la definizione dei Liveas, i livelli essenziali dei servizi e degli interventi sociali, che ha

la finalità di assicurare un nucleo di prestazioni essenziali in tutto il territorio nazionale. A tale aspetto si unisce anche la valutazione di come il Piano di zona, si colloca all'interno delle politiche definite a livello regionale, ovvero quali siano gli obiettivi e le aree di intervento stabiliti dagli atti normativi e i trasferimenti di fondi stanziati per il territorio. "Solo esplicitando tali legami sarà possibile comprendere quanto il Piano di zona sia il ponte di collegamento tra il livello di governance regionale e quello locale e quali siano i margini di libertà del territorio nel ridefinire gli obiettivi e le risorse della programmazione rispetto a quanto indicato dalla Regione"[32].

Occorre considerare anche un altro aspetto: in seguito alla riforma del Titolo V della Costituzione, viene a porsi l'accento sul concetto di "essenzialità" dei livelli di prestazione, i quali riflettono la necessità di dare un contenuto concreto e una conseguente attuazione ai diritti a cui si riferiscono. Con la suddetta Riforma, si apre un nuovo scenario in cui si conferma allo Stato la possibilità di intervenire attraverso la definizione di principi fondamentali, nonché tramite la determinazione dei livelli essenziali delle prestazioni e alle Regioni ne consegue la necessaria collaborazione con lo Stato per darne attuazione.

Tuttavia, è ancora aperto il dibattito, su come tradurre tale collaborazione a livello operativo: si pone, quindi, la necessità di definire procedure chiare di compartecipazione tra Stato e Regioni per poter individuare i margini lasciati all'autonomia regionale.

A livello di programmazione locale rimane comunque centrale il ruolo svolto dall'ambito territoriale che ha il compito fondamentale di definire le priorità d'intervento, non solo in considerazione delle linee stabilite a livello regionale, ma anche degli stimoli che nascono direttamente dal territorio "protagonista" dell'intervento sociale. Quindi, a livello locale, si gioca la sfida di costruire un sistema di servizi in "(…) un quadro di cambiamenti in cui territorializzazione e de-territorializzazione avanzano congiuntamente (Sassen, 2006), in cui la scala nazionale dell'azione pubblica è sotto pressione da un lato per l'intensificarsi dei processi di internazionalizzazione, dall'altro per riemergere di dinamiche di differenziazione territoriale (Ferrarese, 2011)"[33].

Il cambiamento, nella programmazione dei servizi, in termini generali, è teso a rafforzare il rapporto tra diritti e territorio, giustizia sociale e democrazia, per la costruzione di un welfare locale che sia realmente considerato "(…) come una configurazione specifica di bisogni, risorse, attori, strettamente collegata alle caratteristiche del contesto"[34]. Pertanto, la partecipazione ai processi di programmazione dei servizi passa attraverso il "prendersi cura dei beni comuni" da parte dei cittadini attivi, i quali contribuiscono in modo democratico e solidale alla creazione delle condizioni grazie alle quali ognuno può realizzare pienamente se stesso come persona e offrire, allo stesso tempo, le proprie potenzialità e abilità per la costruzione di un welfare locale teso al benessere proprio e della comunità.

Notes

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[6]La 328/2000 ha aperto uno spiraglio importante: il nuovo assistente sociale dovrà conoscere approfonditamente il territorio (anche scientificamente, attraverso studi e ricerche) e considerare sia l'utenza reale sia (e forse soprattutto) l'utenza potenziale, Pieretti G., *La trasformazione dei bisogni sul territorio: una sfida per il sociale*, in Pieretti G. (a cura di), *Il latente e il manifesto. Bisogni nella città e servizio sociale,* Franco Angeli, Milano, 2003, p. 8

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Extended Abstract

Starting from late Seventies, organization and policy planning of welfare began to change their approach to understand needs of citizen. Their main goal is to put more attention in new evolving needs with the aim to reach not only local users who are expecting an explicit support from closer institutions, but also the so-called potential users. Such an ability, as we are going to explain, should be more and better skilled by social workers, meaning everyone having a privileged direct relationship with users, in order to make community welfare concretely operational.

To achieve this objective, in view of restraint in social spending and in the perspective of meeting the real needs of people, it is necessary to define the basis for a new welfare system in which citizens are called to participate actively in the organization and planning of policies and social services, through responsible choices also in decision-making.

This approach must be reflected concretely in a partnership and practical cooperation between State and citizens, aimed at creating a "generative welfare", based on solidarity and subsidiarity. This kind of welfare has to be set as a model that can regenerate the available resources, empowering the same supported people to achieve greater efficiency of social policy measures for the benefit of the local community. This paradigm - based on the recognition of the central role of citizen, considered not only as user, but as allied and promoter of services, real resource for himself and the community - is legitimized by the new European political orientations and by the social, cultural, economic and, not least, political changes within the Italian context.

In general terms these innovative drives are the basis of change in the planning of social services in order to strengthen the relationship

between rights and territory, social justice and democracy, as key elements for the establishment of a local welfare which really meets values, needs and characteristics of the territory investigated.

Keywords: Social needs, Territory, Subsidiarity, Local planning

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