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Urban områdetransformasjon - en gjennomgang av internasjonal litteratur

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presenterer notatet hovedtrekk i den internasjonale
forskningslitteraturen på temaene Politikk og styring,
Planlegging og styring, Økonomi, finans og styring og
Eierskap og eiendomsutvikling under hovedtemaet Urban
områdetransformasjon. Notat inneholder også et vedlegg
med sammendrag av relevante artikler.

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Forord

Urban områdetransformasjon – en gjennomgang av internasjonal litteratur presenterer hovedtrekk i den internasjonale, fagfelleverderte litteraturen (tidsskrifter og bøker). Det er Kommunal- og moderniseringsdepartementet som er oppdragsgiver for arbeidet, og formålet har vært å bygge kunnskap på feltet, både hos oppdragsgiver og oppdragstaker.

Notatet bygger på et søk i databasen Scopus, gjennomført av Ressursgruppe for litteratursøk ved Universitetsbiblioteket, OsloMet, men også søk gjennomført ved By- og regionforskningsinstituttet NIBR. Etter en innledning (kapittel 1) og en gjennomgang av søket og valg av litteratur (kapittel 2), presenteres hovedfunn i kapitlene 3 til 6 (Politikk og styring, Planlegging og styring, Finans, økonomi og styring, og Eierskap og eiendomsutvikling), mens kapittel 7 oppsummerer arbeidet. Til slutt er det et vedlegg med artikkelsammendrag.

Berit Nordahl har vært prosjektleder, mens Geir Inge Orderud har hatt et administrativt ansvar. Kapitlene 1 til 3 og 7 er skrevet av Orderud, kapittel 4 av Skogheim, kapittel 5 av Johansen og kapittel 6 av Nordahl. Orderud har i tillegg hatt ansvaret for å sammenstille litteraturen i vedlegget.

Oslo, april 2017

Berit Nordahl
Forskningsjef

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1 Innledning

De siste par tiårene av det 20. århundret ble preget av en framvoksende, ny internasjonal arbeidsdeling, med flytting av vareproduserende bedrifter fra «vestlige» land til lavkostland. Tidligere dreide det seg også om omlokalisering fra sentrale pressområder til perifere områder i vestlige land. Etter hvert ble det et globalt fenomen, med betydelige sosioøkonomisk og materiell omstrukturering i byer. Kort sagt, næringsområder er og blir omdannet i møtet med nasjonale og internasjonale (globale) endringer. I den internasjonale litteraturen brukes begrepene «Brownfield redevelopment – regeneration – revitalisation» av tidligere næringsområder på slike endringer. For norske forhold bruker vi begrepet transformasjonsområder som samlebetegnelse på denne type endringer (både sosioøkonomisk og materiell fornyelse eller omstrukturering).

Fornyelse og omstrukturering av eksisterende næringsområder gjør at man ikke trenger å ta i bruk jomfruelige arealer. Imidlertid, utbygginger i nye, ubrukte områder – «greenfields» – er ofte billigere og enklere. Derfor har det vært nødvendig med en bevisst og aktiv politikk for å sette i gang og realisere transformasjonsutbygginger. Det er blitt utført mye forskning, både for å etablere det nødvendige kunnskapsgrunnlaget for politikk og sette fenomenet inn i en vitenskapelig sammenheng. Målet med dette notatet er å gjennomgå forskningen på feltet og belyse sentrale bidrag som kan være nyttig for norsk politikk.

I europeisk sammenheng er det blitt avdekket at det dreier seg om et stort antall områder og et omfattende areal, slik det framgår i en studie fra European Commission (2013, side 3);

“The European Environment Agency (EEA) has estimated that there are as many as three million brownfield sites across Europe, often located and well connected within urban boundaries and as such offering a competitive alternative to greenfield investments. However, their effective and sustainable regeneration will require the full support of planners as well as innovative and integrated approaches.”

Rizzo m.fl. (2018) viser til studier som forteller at det i Tyskland dreier seg om rundt 128 000 hektar, mens det for Tsjekkia dreier seg om ca. 10 300 ha (begrenset til områder større enn ett hektar). Forurensning av grunnen er en sentral utfordring for transformasjon av tidligere næringsarealer. Det trengs derfor kartlegging og kunnskap om naturvitenskapelig og teknisk forhold; håndtering av skadelige stoffer; institusjonelle, legale og styringsrelaterte forhold; og økonomiske, finansielle og markedsmessige betingelser.

Hva kjennetegner transformasjonsområder («brownfields»)? På grunnlag av en gjennomgang av bruken av dette og relaterte termer, foreslo Alker m.fl. (2000) definisjonen “any land or premises which has previously been used or developed and is not currently fully in use, although it may be partially occupied or utilized. It may also be vacant, derelict or contaminated.” Forfatterne understreket at fornyelse og omstrukturering i de fleste tilfeller krevde ekstra tiltak.

Tang og Nathanail (2012) påpekte at offentlige reguleringer bygger på ulike definisjoner av «brownfield». For UK er definisjonen som ligger til grunn for reguleringsarbeidet, «unused and underused land that is previously developed» (side 841), men her inngikk ikke tidligere landbruk. Det understrekes at slike definisjoner henger sammen med lovgivning i de enkelte landene, og artikkelen mente folketette europeiske land legger vekt på effektiv gjenbruk, mens mindre tettbefolkede land (skandinaviske og nord-amerikanske) i større grad legger vekt på opprydding av forurenset grunn..

Pizzol m.fl. (2016, side 178) trakk fram det EU-finansierte HOMBRE-prosjektet (Holistisk Management of Brownfield Regeneration), der “brownfields” er områder som “has been affected by former uses of the site or surrounding land, is derelict or underused, mainly in fully or partly developed urban areas, require intervention to bring it back to beneficial use; and may have real or perceived contamination problems”. På den måten fanger de inn flere av de forståelsene som Tang m.fl. (2012) knytter til forskjellige land. Vi benytter denne definisjonen for det vi benevner transformasjonsområder

I litteraturen benyttes også begrepene «greyfields» og “brightfields”. Det første er områder med «occupied housing that is physically and technologically obsolescent, environmentally poor performing and economically underutilized” (Newton 2010), mens det andre er “brownfields that are reused for the generation of renewable energy” (Spiess and DeSousa 2016). Selv om den første kategorien kan ha noe for seg, velger vi å se begge som underkategorier av transformasjonsområder.

Loures og Vaz (2018) har på sin side forsøkt å lage en typologi for «brownfields», og på grunnlag av en gjennomgang av eksisterende studier, identifiserte de fem kategorier:

- i. abandoned (fullstendig forlatt);
- ii. contaminated (forurenset);
- iii. derelict (neglisjert);
- iv. underutilized (ikke fullt ut utnyttet); og
- v. vacant (ikke i bruk).

Typologien er en blanding av hvor mye/lite områder er i bruk og forurensning, og kategoriene framstår derfor som delvis overlappende. Det typologien tilfører er at områder kan være i ulike stadier av en slitasjeprosess, og dette kan igjen avhenge av tidligere bruk, for eksempel, tidligere vareproduksjon, transportrelaterte områder, militære områder, landbruk, og søppelfyllinger og kloakkdeponier.

I tillegg til klart definerte transformasjonsområder med opphav i tidligere næringsvirksomhet, er det boligområder der det skjer en skrittvis fortetting som over tid akkumuleres til transformasjon. Det er ikke like mye forskning på dette i den litteraturen vi har gjennomgått. Det må imidlertid understrekes at transformasjonen av tidligere næringsarealer kan omfatte tidligere boligområder.

Generelt viser gjennomgangen av litteraturen at de aller fleste artikler er empirisk orienterte, enten direkte ved at forhold ved transformasjon studeres eller at

modeller testes i eksempelstudier. Det betyr at kontekst, eller stedlige forhold gjør seg gjeldende. Vi mener likevel at kunnskap om og politikk for norske forhold kan dra nytte av studier og erfaringer fra andre land.

2 Litteratursøk, treff og temaer

Ressursgruppe for litteratursøk ved Universitetsbiblioteket, OsloMet, gjennomførte et søk i databasen Scopus som omfatter rundt 20 000 tidsskrifter. Det ble gjennomført et møte mellom representanter for Ressursgruppa og NIBR i november 2018. I dette møtet ble relevante søkeord diskutert. Disse ble oppsummert i områdetyper og temaer

Tabell 2.1: *Søkestermer*

Områdetyper	Temaer
Urbanisering/utbygging	(Urban) Governance
Brownfield redevelopment	Land use management
Brownfield regeneration	User involvement
Brownfield revitalisation	Financialisation
Waterfront redevelopment	Property development
Waterfront regeneration	Land owners
Waterfront revitalisation	Land assembly – land availability
Greenfield (re)development	Market led
Urban densification	Citizens participation
Urban intensification	Cooperation urban redevelopment
high-density projects/strategy	
Urban redevelopment	
Urban infill development	
Residential infill	

På dette grunnlaget formulerte bibliotekarene to søkestrenger, og det ble søkt på tittel, sammendrag og nøkkelord (TITLE–ABS–KEY) for fagfellevurderte artikler publisert i perioden januar 1995 til desember 2018. Den fulle søkestrengen i Scopus-syntaks er:

```
(TITLE-ABS-KEY ( ( brownfield* W/3 ( redevelop* OR regenerat* OR revitali* ) ) OR ( waterfront* W/3 ( redevelop* OR regenerat* OR revitali* ) ) OR ( greenfield* W/3 ( redevelop* OR develop* ) ) OR ( urban W/3 ( densif* OR redevelop* OR intensif* OR "high-density project*" OR strateg* OR "infill develop*" OR "residential infill" ) ) ) ) AND ( TITLE-ABS-KEY ( ( governance OR "land use management" OR "user involvement" OR financialisation OR "property development" OR "Land owner*" OR "Land assembly" OR "land availability" OR "Market led" OR "Citizen* participat*" OR "Cooperation urban redevelopment" ) ) )
```

Til sammen ga dette 630 treff. En første siling basert på titler kombinert med sjekk av sammendrag for arbeider der tittel ikke ga en klar ide om tema, brakte antallet ned i 243 arbeider. Disse arbeidene ble fordelt på temaer og samtidig ble det gjort en grovmasket siling basert på sammendrag.

Etter møtet med Ressursgruppen, utførte NIBRs prosjektgruppe litteratursøk med utgangspunkt i de samme søkeord som biblioteket, men med andre søkekriterier. Til forskjell fra bibliotekets søk gjorde NIBR flere søk, der «brownfield» ble koplet enkeltvis til «redevelopment – regeneration – revitalisation», og igjen enkeltvis til

«governance + stakeholders, involvement, planning and management, economics + finance, land use management, property development». Dette ga langt flere trefflister, men med langt færre treff enn det ene søket til Ressursgruppa.

Etter silingen av bibliotekets søk, sjekket vi de gjenværende treffene med treffene i NIBRs søk og fant at en del arbeider i NIBRs treffliste ikke fantes i bibliotekets og omvendt. Vi valgte derfor å gå gjennom NIBRs treffliste og legge til relevant litteratur. En viktig forskjell i de to søkene er at biblioteket brukte søke termen «financialisation», mens NIBR benyttet «economics» og «finance» og dermed fikk flere relevante treff på dette temaområdet enn det biblioteket fikk. I tillegg la NIBR søke termen «stakeholder» til «governance», noe som også synes å ha bidratt til flere relevante treff under dette temaet. Tabell 2 viser temaer med antall arbeider og antall arbeider som tilhører flere temaer i parentes for både bibliotekets og NIBRs treff.

Tabell 2.2: *Resultater fra litteratursøk – av Ressursgruppen ved biblioteket og av NIBR*

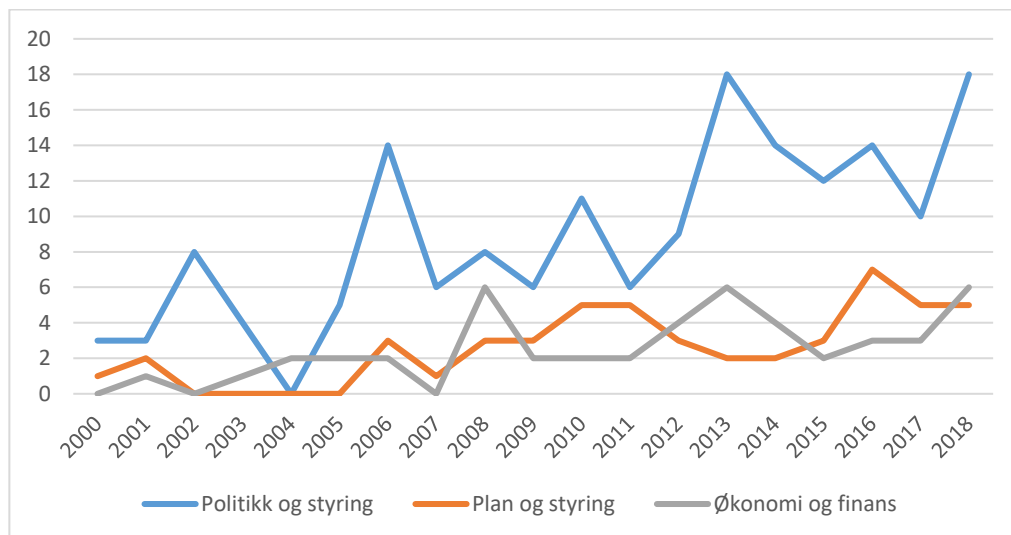
Tema	Antall arbeider (felles med andre)	
	Biblioteket	NIBR
Planlegging og styring	37 (3)	15 (10)
Politikk og styring	64 (4)	80 (30)
Beslutningssystemer	10 (1)	-
Eiendomsutvikling og eierskap	14 (2)	1 (1)
Økonomi og finans	30 (13)	31 (18)
Privat–offentlig samarbeid	18 (5)	1 (1)
Restkategorier	22 (-)	23 (-)

Det viste seg å være få treff på arbeider fra tiden før år 2000, og selv om det er variasjoner fra år til år, er trenden et økende antall arbeider, slik det framgår av figur 1 for treff under Politikk og styring, Planlegging og styring, og Økonomi og finans. År 2006 peker seg ut som et avvik, med forholdsvis mange arbeider. Et temanummer på temaet «brownfield» i tidsskriftet «Local Government» bidro til dette. Det må imidlertid understrekes at et økende antall tidsskrifter i løpet av de siste 10 til 15 årene bidrar til publisering av flere artikler, samtidig som noen tidsskrifter kanskje ikke har digitalisert og lagt ut artikler trykt før år 2000. Det viktigste er nok økningen i antall tidsskrifter.

Tabell 3 presenterer de mest brukte tidsskriftene for de tre temaene Politikk og styring, Planlegging og styring og Økonomi og finans. Det viser seg at Journal of Environmental Management er viktig for alle tre temaer. I tillegg viser det seg at de viktigste tidsskriftene under Plan og styring har «planning» og «management» i navnet. Videre, det er generelt sett få artikler per tidsskrift under Økonomi og

finans, dvs. temaet dukker enkelte ganger opp i en rekke tidsskrifter. For Styring og politikk, kan vi merke oss at tidsskriftet Land Use Policy er det dominerende tidsskriftet, men i liten grad gjør seg gjeldende for de to andre temaene.

Figur 2.1: *Utvikling i antall arbeidere for tre temaer*



Tabell 2.3: *Mest brukte tidsskrifter under de tre temaene Politikk og styring, Økonomi og finans, og Planlegging og styring*

Tema	Mest brukte tidsskrifter
Politikk og styring	Land Use Policy (12)
	Journal of Environmental Management (7)
	Cities (6)
	Local Environment (6)
	Sustainability (6)
	European Planning Studies (5)
	Journal of Cleaner Production (5)
	Landscape and Urban Planning (5)
	WIT Transaction on Ecology and the Environment (5)
Økonomi og finans	Journal of Environmental Management (3)
	Economic Development Quarterly (2)
	Geography Compass (2)
	International Planning Studies (2)
	Journal of European Real Estate Research (2)
	Urban Studies (2)
	WIT Transactions on Ecology and the Environment (2)
Planlegging og styring	European Planning Studies (4)
	Journal of Environmental Management (3)
	Journal of Environmental Planning and Management (3)
	Landsc
	ape and Urban planning (3)

3 Politikk og styring

Litteraturen falt i hovedsak under emnene politikk og beslutningssystemer, generelle forhold knyttet til samstyring (governance), det lokale nivået under (sam)styring, urbane prosesser, sammenlikning av byregioner og organisasjon. I tillegg, under flere emner er det artikler som omhandler post-sosialistiske byer, samt miljø og forurensning. Hovedtyngden av arbeidene tilhører de to emnene politikk og styring og generell samstyring, og av disse to synes arbeider under det første å være mest nyttige.

3.1 Politikk og systemer for beslutningsstøtte

En sentral utfordring for transformasjon av næringsarealer er som påpekt i kapittel 1, at området består av mer eller mindre forurenset grunn; at omfanget ikke er tilstrekkelig kjent; og at det ofte vil være konflikter med andre interessenter, enten det er beboere eller næringsliv. McCarthy (2002) formulerte utfordringen som todelt, ved at man på den ene side forsøker å redusere barrierer mot privat transformasjon av eksisterende næringsarealer, blant annet ansvar for og uklare standarder for opprydding av miljøgifter, støtteordninger og kompliserte reguleringsbetingelser. På den annen side ønskes det å kombinere ny bruk av arealene med samfunnsmessige mål, blant annet miljø, helse og beskyttelse og lokal medvirkning og deltakelse.

Det har derfor blitt utviklet en rekke systemer for å legge til rette for forsvarlige valg og beslutninger, både for (i) utviklingen av ett enkelt næringsareal og for (ii) valg av næringsarealer for utvikling blant mange potensielle kandidater. For den siste kategorien velger vi å gi en litt grundigere presentasjon av ett slikt system for å illustrere opplegg og bruk.

3.1.1 Valg av område blant mange kandidater

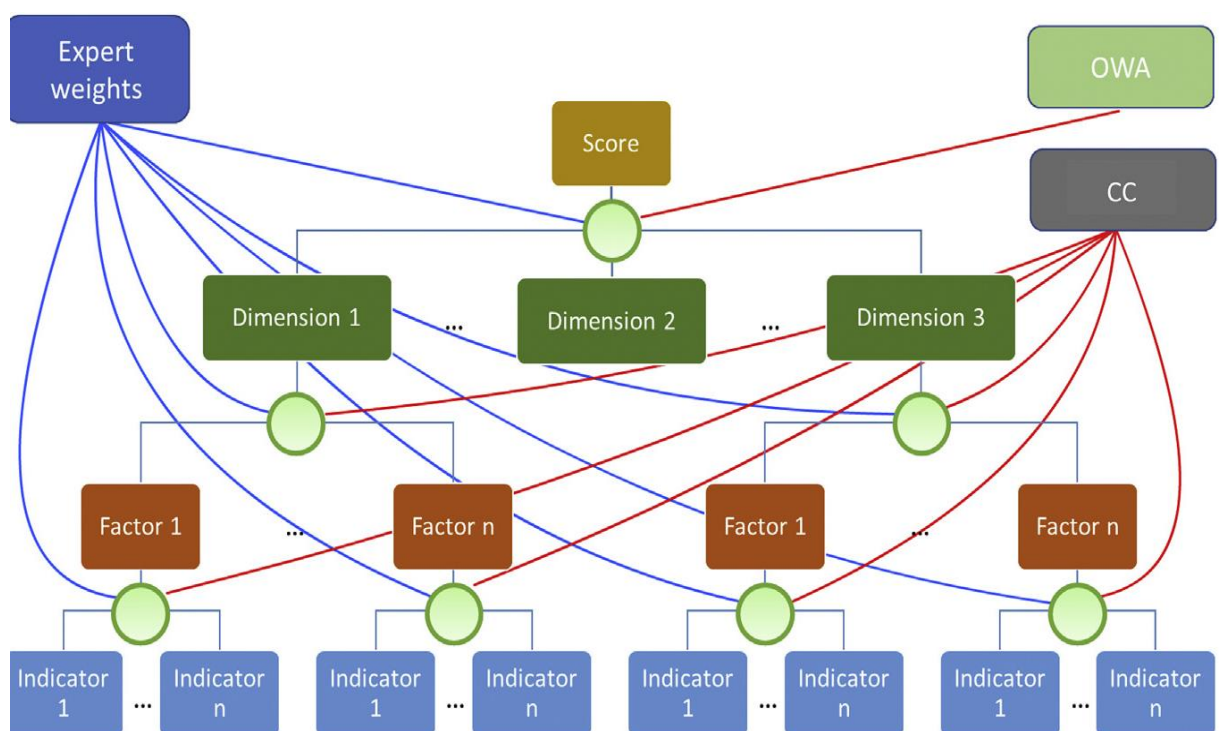
Pizzol m.fl. (2016) presenterte «Timbre (Tailored Improvement of Brownfield Regeneration in Europe) Brownfield Prioritization Tool». De peker på at et av fortrinnene ved Timbre er at det er web-basert og dermed mulig å bruke uten å installere systemet på egen datamaskin. Verktøyet gjør det mulig å identifisere og velge område for fornyelse eller områder for grundigere undersøkelse. Et sett suksessfaktorer identifiseres ved hjelp av interessenter som så inngår i «multi-criteria decision analysis»-metodologi, der også bærekraftdimensjonene (økonomi, sosialt og miljø) inngår.

I bruk består systemet av fire moduler: (i) brukerinfo, (ii) prosjektinfo, (iii) rangeringsmetodikk, og (iv) visualisering av resultater. Den sentrale modulen er rangering, og denne omfatter tre trinn:

- i) Data, der definisjon av dimensjoner, faktorer og indikatorer inngår, sammen med innsamling av indikatorverdier
- ii) Normalisering som omfatter valg av den beste funksjonen og anslag for normaliserte verdier for indikatorer
- iii) Vekting av indikatorer, faktorer og dimensjoner

Figur 2 illustrerer rangeringsprosedyren i Timbre, med indikatorer som knyttes til funksjoner og deretter til dimensjoner. På disse tre trinnene benyttes en «convex combination»-metode der vektorer omdannes slik at de summeres til 1. Dette gjøres først for samlet faktorskår og deretter samlet dimensjonsskår. Ekspertvurderinger utgjør et sentralt grunnlag for både indikatorer, faktorer og dimensjoner, og sammen med «ordered weighted average» legger ekspertvurderinger grunnlaget for den samlede skåren for hvert område som inngår i rangeringsprosedyren.

Figur 3.1: Hierarkisk struktur for rangering av næringsarealer som er aktuelle for fornyelse (hentet fra Pizzol m.fl. 2016, side 181)



Grunnlaget for identifisering og valg av indikatorer og faktorer er litteraturstudier, intervjuer og spørreskjemaundersøkelse blant interessenter i forskjellige land, samt statistiske data-analyser. Videre vurderes tilgjengelig og sammenliknbare data i eksisterende databaser og registre over næringsarealer, samt andre statistiske databaser. Til slutt tas det hensyn til målbarhet og kostnad for å få tilgang til data vurdert i forhold til nytte, samt dokumentasjon, kvalitet og oppdateringsprosedyrer.

Dimensjoner er spesifikke aspekter ved fornyelsen av områder, og eksemplifiseres i Pizzol m.fl. (2016) som (i) lokalt utviklingspotensial som bygger på utdanning, entreprenøraktivitet, arealverdi, periferigrad, folketetthet og transport, (ii) markedsattraktivitet som bygger på utbyggingskostnader, eierskap, tidligere bruk, spesifikk lokalisering og infrastruktur, og (iii) miljørisiko som bygger på forurensning, naturvern, arealbruksområder. Hver faktor består av en eller flere indikatorer. For eksempel operasjonaliseres transport ved nærhet til hovedveier

(highway), eierskap med antall eiere, og arealbruk med gjeldende arealbrukskategori.

Bartke m.fl. (2017) vurderte styrker og svakheter ved Timbre. De konkluderte at systemet er enkelt å bruke og meget fleksibelt, men gitt denne fleksibiliteten er det viktig å dokumentere og være åpen på vekting og resultater, sammen med måten dette er gjort på. Metode og algoritme er dokumentert, men for den vanlige bruker kan dette oppfattes som en svart boks og verken risiko eller usikkerhet tilknyttet rangeringsresultatene og datagrunnlag blir presentert. Systemet foreskriver ingen bred deltakelse av interessenter, men sluttbrukere kan trekkes med. Vekting osv. er vitenskapsbasert, men kan tilpasses av lokale brukere. Ved lokal tilpasning åpnes det opp for større grad av subjektivitet. Datasikkerhet kan utgjøre en trussel i forhold til tukling med resultater.

Selv om Timbre sies å ha bidratt til et mer anvendelig system for å velge blant mulige områder for ny utvikling, erkjennes det at dette og andre systemer ikke benyttes fullt ut fordi det er manglende synlighet og problemer ved å finne skreddersydde data (Rizzo m.fl. 2018). For å bøte på dette har en gruppe forskere som også var engasjert i utviklingen av Timbre-verktøyet utviklet et «Information System for Brownfield Regeneration» (ISBR). Kjernen i dette systemet, eller verktøyet er å gjøre systemet i stand til å forstå interessenters informasjonsbehov, og på det grunnlag skreddersy informasjon for ulike grupper. Det gjøres ved via en «Artificial Neural Network» (ANN) metodologi.

Systemet bygger på en web-basert database, med informasjon som er nyttig for fornyelse av denne type næringsarealer, og en ANN-metodologi for å evaluere og rangere den innsamlete informasjonen. Det sentrale i ANN-metodologien er at den skal lære av hvordan brukere anvender systemet for på den måten forbedre rangeringsresultatene. For dette formålet benyttes en matematisk ikke-lineær regresjonsmodell som etter en læringsfase utleder modellen, som ligger til grunn for et sett inn- og utdata. Systemet bruker dette som 'trening', og på grunnlag av likeartete forhold kan ANN bestemme 'riktige' utdata.

3.1.2 Utviklingen av et valgt område

Fornylesområder med forurenset grunn er krevende å håndtere, og det er blitt utarbeidet beslutningssystemer for å hjelpe utbyggere gjennom de ulike oppryddingsfasene. Av en liste på drøyt 20 forskjellige systemer, valgte Stezar m.fl. (2013) å sammenlikne SADA (Spatial Analysis and Decision Assistance) og DESYRE (Decision Support System for the Requalification of Contaminated Sites), med det for øye å vise nytten ved bruk av slike systemer.

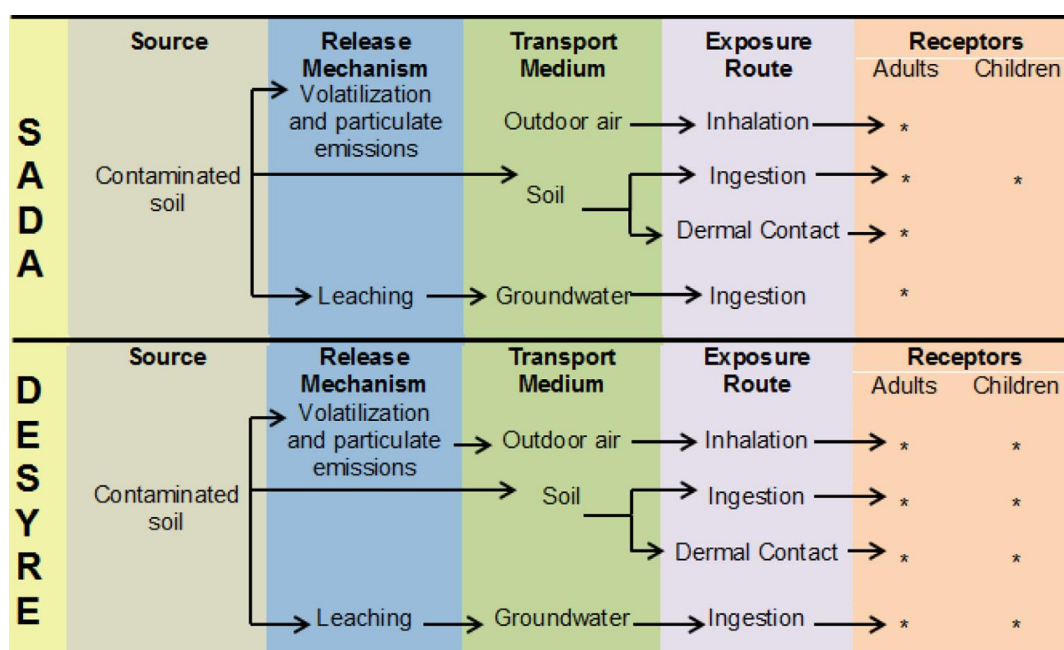
SADA omfatter en rekke verktøy (GIS, utvalgsdesign, statistikk, databehandling, visualisering, romlig modellering, usikkerhetsanalyser, risikovurderinger, avbøtende tiltak, og kostnad-nytte analyser), og frambringer helhetlige vurderinger av folks helserisiko. Modellen produserer risikonivåer for konsentrasjoner av skadelige stoffer og eksponeringsscenarier.

DESYRE (Decision Support System for the Requalification of Contaminated Sites) omfatter seks moduler (kjennetegn ved området, sosioøkonomisk analyse, risikovurdering før og etter valg av teknologier, teknologiske aspekter og alternative løsningsscenarier). Systemet (i) forutsetter aktive eksperter for å unngå for mye forenkling, (ii) tillater integrerte analyser av økonomiske,

sosioøkonomiske, teknologiske og miljømessige forhold, (iii) tillater GIS-analyser som grunnlag for planleggingsformål, blant annet arealbrukszoner og prioriteringer, og (iv) multi-kriterie-analyse for å sikre åpne beslutningsprosesser

Med utgangspunkt i et rumensk eksempel sammenliknes de to systemene, og figur 3 viser eksponeringsdiagrammet som er benyttet for sammenlikning av de to systemene. Stezar m.fl. (2013) konkluderer at begge systemene er nyttige som støtte til behandlingen av forurensete områder. SADA-systemet gir interessentene bedre støtte med hensyn til prøvetesting, definering av risiko og kost-nytte analyse, mens DESYRE-systemet er bedre i valg av renseteknologi, samt evaluering og sammenlikning av rensescenarier, gitt arealbruksscenarioer i den sosioøkonomiske modulen.

Figur 3.2: Eksponeringsdiagram for SADA og DESYRE (Stezar m.fl. 2013).



3.2 Barrierer mot utvikling av gamle næringsarealer

En rekke studier berører barrierer mot fornyelse av næringsarealer, og av disse er det noen som foretar en systematisk gjennomgang av ulike typer barrierer. Et tidlig bidrag er McCarthy (2002) som i en studie fra USA, pekte på ansvar for forurensninger, usikkerhet med hensyn til rensing, tilgang til midler for å gjennomføre fornyinger, og kompliserte reguleringer. Thornton m.fl. (2007) i en studie av Tyskland, UK og Frankrike, framhevet at økonomiske, miljømessige og sosial barrierer på fornyingsområdet bidrar til å hindre slike næringsarealer i å bli tatt i bruk igjen, og de foreslår at UK bør utforme harmoniserte og brukervennlige reguleringer for å unngå at lovgivning skaper uoverstigelige barrierer. I en studie fra USA, identifiserte Ellerbush (2006) ansvar for tidligere næringsarealer som en barriere, og videre at litteraturen pekte på følgende barrierer: (i) Usikkerhet med hensyn til ansvarskjede, dvs. eiere kan være ansvarlige for tidligere tiders

forurensning, (ii) usikkerhet for utlånere, dvs. de kan være ansvarlige sammen med låntakere som er formelt ansvarlige, og (iii) usikkerhet med hensyn til kostnader for rensing, dvs. prosesser som trekker ut og mangel på klare mål for rensing som trekker opp kostnadene. Videre mente Ellerbush m.fl. (op.cit.) at tilgang til tekniske ressurser er en barriere mot lokal involvering. Sammen med faktorer som manglende lokal kapasitet og ressurser; skjev maktbalanse, splittelser og manglende tillit; manglende deltakelse; og rasisme, kan dette gjøre det vanskelig å få til rehabilitering av forurenset næringsareal.

I en canadisk studie så Hayek m.fl. (2010) på hvilke barrierer som reduserer privatdrevet fornying av næringsarealer, og fant at konkurranse fra tidligere ikke utbygd arealer (greenfields) ble nevnt av de aller fleste. Også risiko ble nevnt av et flertall, mens omtrent halvparten pekte på kostnader og ansvar. I tillegg kom den gjengse oppfatningen, eller ryktet slike arealer har i samfunnet. Kort sagt, det dreide seg i stor grad om faktorer som direkte og indirekte påvirket den økonomiske bunnlinja.

De tre-fire siste årene har det kommet noen flere studier som har tatt for seg barrierer. Spiess og De Sousa (2016), i en studie fra USA, tok for seg barrierer mot utnyttelsen av fornybar energi på tidligere næringsarealer. Forfatterne pekte på at det er forurensningsaspektet som skiller slike områder fra konvensjonelle energiprosjekter, og det er forurensningsproblematikken som skaper de mange utfordringene som de grupperer under tre forhold: (i) Tekniske og miljømessige (i hovedsak forurenset grunn, men også forstyrrelsen fra avbøtende tiltak og spredning av forurensning); (ii) Finans, reguleringer og det institusjonelle (i hovedsak tilgang til kapital og, risiko/ansvar); og (iii) Sosiale forhold (i hovedsak motstand begrunnet med fysiske/kontekstuelle forhold, og institusjonelle forhold).

I en engelsk studie brukte Longo og Cambell (2017) et datasett fra 2007 og analyserte barrierer ved hjelp av en «spatial probit latent class model» med klassespesifikke nabolagseffekter. De antok at kjennetegn ved området, lokalisering, tidligere og nåværende bruk, størrelse, eierskap og sosioøkonomiske egenskaper ved beboere omkring fornyelsesområdet, samt kjennetegn ved lokale myndigheter, politiske forhold, lovgivning, planpolitiske forhold, budsjett og utvikling i nærliggende områder, har noe å si for om et område blir fornyet eller ikke, og dermed er potensielle barrierer. Analysen viste at gitt andre forhold holdt konstant, økte lavere slitasjegrader sjansen for fornyelse for alle tre klasser/typer av lokale forhold. Effekten av skifte fra offentlig til privat eierskap varierte avhengig av klasse. I tillegg kom at en lokalisering i sentrale deler av England, som London sammenliknet med nordvestlige områder i betraktelig grad økte sjansen for fornyelse. Kjennetegn ved områder betyr derfor mye for i hvilken grad et slitt (og forurenset) næringsareal blir fornyet eller ikke. Datamaterialet gjorde det ikke mulig å klarlegge om den varierende effekten av offentlig til privat eierskap skyldes verdien av området.

Alexander (2015), i en case-studie fra USA, fant at håndtering av forurensning begrenset gjennomføringen av fornyelse, blant annet fordi reguleringer i tidlige faser av et fornyelsesprosjekt fungerte som en begrensning for private aktørers handlingsrom i senere faser av prosjektet. Videre, viste det seg at politiske

preferanser med hensyn til fornyelse av forurensete områder virket inn, og at politisk støtte er nødvendig men ikke tilstrekkelig, dvs. manglende politisk støtte er en barriere sammen med manglende tillit blant aktører involvert i den politiske prosessen. Endelig, problemspesifikk kontekst spilte en rolle gjennom koplingen av politiske virkemidler og styringsrelasjoner

Green (2018) i en kvantitativ studie av 200 næringsarealer i USA, avdekket positiv korrelasjon mellom sosioøkonomiske faktorer (høye inntektsnivåer), 'grønn' utvikling (bærekraftig bygninger), og skattemessige insentiver (økonomisk støtte) og fornyelsesprosjekter. Derimot fant forfatteren ingen signifikant sammenheng mellom politiske forhold, involvering av interessenter og forurensetype og fornyelsesprosjekter. Studien antyder at beliggenhet i relativt sett fattige områder, type bygg som planlegges og manglende økonomisk støtte fungerer som barrierer. Til forskjell fra studien til Alexander (2015) fant ikke Green at politiske forhold representerte en barriere.

3.3 Det juridiske grunnlaget

Juridiske forhold berøres i en rekke artikler, med noen som mener det er en barriere og andre som ikke gjør det. I utgangspunktet virker det rimelig at lover, reguleringer og forskrifter som krever tiltak mot forurensete grunnarealer, vil kunne være en barriere mot fornyelse av næringsarealer. Det er også et felt der landspesifikke forhold i stor grad gjør seg gjeldende. Blant de artiklene vi fant som direkte tar for seg det juridiske, peker de følgende tre artiklene seg ut.

Calster (2004) diskuterte betydningen av jordsmonn i EC-lover, samt betydningen av ECs økonomiske lover for miljøspørsmål, som regler for statsstøtte, forbudet mot fiskal diskriminering, og muligheter for støtte til rensing av jordsmonn og utviklingen av tidligere næringsarealer, europeisk utviklingsfond, og EUs avfalls-lov. I tillegg understrekte forfatteren nasjonale jordsmonn-programmer, som for eksempel strategier for beskyttelse av jordsmonn, miljøprogram, og et direktiv for ansvar for miljøforhold. Artikkelen pekte på at prinsippet om subsidaritet kan spille en viktigere rolle enn det kommisjonen erkjenner, med henvisning til at miljøproblemer ikke er så globale som det kan synes som.

Layard (2004) tok for seg spørsmålet om forurenset grunn i Europa, med fokus på behovet for harmonisering av regler om ansvar for forurenset grunn, begrunnet i konkurranselovgivning. Et første spørsmål er når et område er forurenset og et annet er hvordan avgjøre hvor rent det skal være. Begge forhold var uløste problemer på tidspunktet for artikkelen. For et mulig direktiv var det også et sentralt spørsmål hva forurenset grunn dreier seg om, utløsning av ansvar for rensing og hva dette ansvaret omfatter. Det dreide seg i hovedsak om økonomisk ansvar og ikke de selve rensingen. Det betyr at hvert enkelt medlemsland har frihetsgrader på tekniske og naturvitenskapelige forhold, samt det styringsrelaterte. Konklusjonen til Layard ble at fullkommen harmonisering lå et stykke fram i tid.

Mellenbergh (2011) analyserte lovgivning som regulerer rettigheter og ansvar for «transactions (or transfer) triggered environmental laws of acts» (TTEA), Det

sentrale her gjelder ansvar for å gjennomføre en undersøkelse i et område og håndtere/fjerne forurensing. Artikkelen gjennomgår i hovedsak erfaringer fra denne type lovgivning i USA, selv om Belgia også nevnes. Argumentet er at en TTEA-lov vil klarlegge kjøpers og selgers ansvar for å informere og foreta undersøkelser om forurensing, samt økonomisk ansvar for å rydde opp. Forfatteren argumenterer for at TTEA kan skape like konkurranseforhold innenfor EU, ved at foretak inkluderer miljøansvar i «due diligence»-undersøkelser, der det på forhånd blir gjort klart eventuelle miljørelaterte oppryddingsansvar. Uriktige opplysninger utløser ansvar, og på den annen side, hvis selger har oppfylt sin informasjonsplikt, står kjøperen ansvarlig.

3.4 Transformativ kapasitet for urban utvikling

Wolfram (2016) tar ikke eksplisitt for seg fornyelse av næringsarealer, men fokuserer på transformasjonskapasitet i den urban utviklingen mer generelt, forstått som å sette aktører i stand til å utvikle og til dels legge til rette for systemisk bærekraftig utvikling. Artikkelen identifiserer følgende forhold som viktige:

- (i) inkluderende og mangfoldig urban samstyring: deltakelse og inkludering, nettverksstyring, mellomliggende og hybride aktører
- (ii) transformasjonsledelse (offentlig, privat og sivil sektor): felles problemløsning, visjonært, fra det lokale til det globale, forfølge systemiske endringer.
- (iii) bemyndigelse av og selvstendige steds-/temabaserte samfunn; sosiale behov, ressurser, praksis
- (iv) systemisk kunnskap: ny og åpen kunnskap om systemiske sammenhenger, strategisk kunnskapsledelse, fokus på stivhengigheter
- (v) urban bærekraftig framtidfokus: variert og transdisiplinær samproduksjon av kunnskap, kollektiv visjon for å skape radikale bærekraftige endringer, alternative utviklingsretninger.
- (vi) varierte eksperimenter med å bryte opp eksisterende ordninger og systemer, med fokus på innovasjoner i urbane omgivelser, kulturer og institusjoner.
- (vii) forankring og sammenknytning av innovasjonsaktiviteter: tilgang på ressurser for utvikling av kapasiteter, planlegging og alminneliggjøring av transformativ handlinger.
- (viii) refleksivitet og sosial læring; overvåking av transformativ kapasitetsbygging, lederskap, praktisk kunnskap mht. igangsetting og gjennomføring av radikale endringer.
- (ix) aktiviteter som favner flere aktørnivåer: kapasitetsutvikling for ulike aktører og temaer,
- (x) aktiviteter som strekker seg over flere politisk-administrative nivåer og geografiske skalaer.

Wolfram vektlegger transformasjonsevner og mener dette er et nyttig perspektiv for å vurdere innebygde styrker og svakheter i ulike kategorier land, for eksempel det globale Sør og Nord. Opplegget sies å være nyttig for både etablert og for

nye typer politikk og styring. Den kritiske betydningen av sted og relasjonell transformasjonskapasitet vektlegges. Urban transformasjonskapasitet bygger på stedsbaserte strategier og samspill på flere nivåer, ikke kun det lokale eller i foretak. Transformasjonsledelse, samfunnsmessige praksiser og bindeledd utgjør sentrale elementer i de handlingsformer som gjenskaper eller bygger opp nye kapasiteter.

Det synes ikke å være en klar, direkte overføringsverdi til fornying av (forurensete) næringsarealer i byer, men på et generelt grunnlag kan styrking eller utvikling av urban transformasjonskapasitet bidra til utviklingen av en aktiv politikk overfor utdaterte, nedslitte og forurensete næringsarealer. Imidlertid, mye avhenger av økonomiske prioriteringer.

4 Planlegging og styring

Hovedvekten er lagt på artikler som er empirinære, og som kobler teori og empiri på en tydelig måte. Noen av artiklene/bokkapitlene viser hvordan modeller eller verktøy kan brukes for å få bred oversikt over et problemfelt. Selv om overføringsverdien i noen av disse bidragene ikke er åpenbar, er det lagt vekt på at det kan være noe å hente også fra disse. Videre kan artikler være tematisk relevante selv om konteksten er ikke-Europeisk. Bakteppet for de fleste artiklene er arealpress, noe som gjelder byer i og utenfor Europa. Sentrumsfortetting foregår i stort omfang i og utenfor Norge, og det er en utvikling som er knyttet til klimavennlig byutvikling. Arealpress innebærer imidlertid også at jordbruksarealer og grønne områder betraktes som arealreserver for blant annet boligbygging og annen utbygging. Flere av forfatterne ser dette som uheldig for jordvern og landskapskvaliteter, og dermed ikke i tråd med bærekraftig utvikling. Ny bruk av næringsarealer, inkludert ved sjøsider/elver, anses som mer uproblematisk, selv om det er noen kritiske røster mht. hvem det bygges for og annet.

Styring, enten det foregår gjennom ulike former for samstyring (governance) eller andre typer styringsverktøy, relateres til de aller fleste temaene, med en overvekt på samstyring, som inkluderer nettverksstyring. Noen av artiklene skriver bare «planning», uten å knytte begrepet til bestemte styringstyper.

Flere av bidragene er publisert i anerkjente tidsskrifter, blant annet vurdert ut fra «impact factor» og siteringstall. Det gjelder for eksempel European Planning Studies, International Planning Studies, Journal of Environmental Planning and Management, Housing Studies, Planning Practice and Research, Landscape and Urban Planning og Urban Studies. Noen av bidragene er bøker eller bokkapitler.

4.1 Ny bruk av næringsområder

Arealene det her er snakk om, har tidligere vært industriområder, veier-jernbaneområder og havnearealer. Det er ulike måter å bruke tidligere næringsarealer på. Vanlig bruk er til bolig, næring og ulike typer service, men som De Sousa (2004) understreker, kan de også brukes til parker og friarealer. Forfatteren understreker at flere byer betrakter disse områdene som velegnet for slike publikumsrettete formål, som del av en mer omfattende fornyelsesstrategi. Selv om utvikling av tidligere næringsarealer i Norge ikke er av samme omfang som i USA eller i større Europeiske byer, betraktes slike områder også i Norge som viktige arealreserver for blant annet boligbygging. Det mest interessante når det gjelder overføring fra amerikansk til norsk kontekst, er vektleggingen av at slike områder også kan brukes til parker og friområder, i kombinasjon med boliger og ulike servicefunksjoner.

Det er også en bærekraftsvinkling til fornyelsen av næringsarealer på modell- og systemnivå, selv om det hevdes at mange systemer som brukes ved utbygging, i hovedsak fokuserer på økonomiske aspekter og neglisjerer bærekraftaspekter (Schädler m.fl. 2013). For å bøte på dette har disse forfatterne utviklet et «multi-criteria genetic algorism»-rammeverk som ivaretar og avveier ulike hensyn, som bærekraft versus økonomi. Når det gjelder økonomi, kan avveilingen være

mellom økning i tomteverdi som følge av ny bruk, og kostnader ved oppgradering av området som gjør denne nye bruken mulig. Overføringsverdien (fra et tidligere militærområde i Potsdam) forutsetter at det i hvert tilfelle vurderes hvilke elementer som bør inngå, og at det tilpasses de ulike stedlige sammenhenger. Det bør uansett kombineres med faglig skjønn.

En annen artikkel peker på mulighetene for å få et omfattende, standardisert datamateriale over disse næringsområdene (Chrysochoou m.fl. 2012). Det presenteres et indekseringsskjema med en omfattende oversikt over et stort antall næringsområder på ulike nivåer i USA, der også GIS tas i bruk, noe som er viktig i landmed en stor mengde eldre næringsområder

4.2 Ny bruk av næringsarealer ved sjøsiden

Daamen m.fl. (2016) analyserte sjøsideutbygging som har pågått siden 70-tallet i Nederland (Rotterdam og Amsterdam), med fokus på hvem som har hatt sentrale roller i forhold til ny bruk av havner, og med vekt på *samstyring* som styringsform i nyere planlegging. Studien viste at maktbalansen mellom havnemyndigheter, byplanmyndighetene og brukere av havna har endret seg. Byplanleggere har måttet ta i bruk en mer inkrementalistisk¹ og fragmentert utviklingsstrategi, noe de mener har gitt brukere av havna (næringsdrivende innenfor shipping, containervirksomhet og andre maritime virksomheter) økt innflytelse på planleggingen i skjæringspunktet mellom by og havn. Maktbalansen mellom ulike aktører i Nederland er ikke uten videre overførbart til norske forhold, men at havnemyndighetene har stor makt gjør seg også gjeldende i Oslo og andre større norske havnebyer. Det kan tenkes at store havnerelatert virksomheter også i Norge har vesentlig innflytelse over sjøsideutviklingen, da havnemyndighetene får store inntekter fra slike virksomheter. Samtidig setter byplanmyndighetene rammer for utviklingen, så det er kanskje mer snakk om samspill mellom byplan- og havnemyndigheter, samt politikere og brukere av havna. *Denne maktbalansen bør undersøkes empirisk.*

Oakley (2014) setter et kritisk søkelys på sjøsideutbygging i Port Adelaide, Australia, der den betraktes som politisk, økonomisk og sosialt betydningsfull for byutviklingen, i tråd med at myndighetene er opptatt av boligforsyning og sikring av omgivelseskvaliteter. Forfatteren mener myndighetene har feilet i forhold til planlegging, design og boligfortetting i denne type utbygginger. Utbygging av sjøsiden markedsføres gjerne som at de kommer brede befolkningsgrupper til gode, men Oakley stiller spørsmålsteget ved om planprosessene sikrer en variert boligbygging, godt bomiljø og god urban design. Vi ser liknende utviklingstrekk i utbygging på de mest attraktive sjøsidearealene i større norske byer, og selv om det har vært et ønske om å tilby boliger til ulike befolkningsgrupper, i ulike prisklasser, er det blitt boliger for de mest velhavende. Offentlige myndigheter er

¹ I planlegging betyr inkrementalisme at mål bestemmes av en blanding av intuisjon, erfaring, tommelfingerregler og en serie rådslagninger. Kun et fåtall alternatives vurderes og evalueres, og problemer blir regelmessig omdefinert i en pågående kjede av skrittvis beslutninger

avhengige av private utbyggere for å få bygget ut slike områder, og det gir disse utbyggerne vesentlig makt over hvem det bygges for.

4.3 Hensyn til jordvern

Artmann (2014) peker på negative konsekvenser for urbane grøntområder og jordvern ved at jordbruksareal og grønne områder bygges ned. Slik nedbygging foregår i mange europeiske land. Selv om det er et politisk ønske å motvirke dette, tyder lite på at denne utviklingen stoppes, ifølge forfatteren. Det stilles spørsmål om hvilke strategier som er effektive for å få til en økologisk bærekraftig styring av jordvern og hva slags fagkompetanse som trengs. Artikkelen konkluderte med at selv om kompetanse finnes, er strategisk overordnet styring av jordvern en mangelvare hos beslutningstakere. Artikkelen omhandler tyske byer, men kan også være relevant for norske byer og områder utenfor byene der jordbruksareal er under press.

Også Oliveira m.fl. (2018) tok utgangspunkt i at jordbruksareal og andre naturressurser bygges ned, men betegner det mer som et miljøproblem. Drivkreftene er de samme som Artman (2014) pekte på. Det understrekes at miljøhensyn har fått en stadig mer sentral plass i strategisk planlegging i byregioner i mange land, og at *bærekraftig arealpolitikk* blir stadig viktigere, men at påpekninger av drivkreftene bak nedbygging av areal er mer sjelden. Det krever strategisk planlegging og streng styring av arealpolitikken. Likevel er ikke jordvern et sentralt hensyn i planleggingen, selv om det er et globalt problem. Forfatternes budskap er at det må bli økt bevissthet om bevaring av jordbruksarealer og utvikle alternative utbyggingsformer, som gjenbruk av tomme bygninger, ny bruk av industriområder, øke fortettingen i bebygde områder, benytte fagfolk på jordvern og fysisk planlegging, for å nevne noe.

Begge artiklene peker på at jordbruksareal er under press fra ulike typer utbygginger. Nedbygging av jordbruksarealer og friområder kan like gjerne skyldes veibygging og næringsutvikling i lite bebygde områder i randsonene av byer preget av utbyggingspress. I kampen om arealer kan jordvern og grøntområder tape for boligbygging, næringsvirksomhet og andre formål som anses som viktigere, med mindre det er en bevisst politikk for å bygge på andre arealer. Hensynet til jordvern kan bidra til styre utbygginger i retning av tidligere næringsarealer.

4.4 Styring og bærekraftig byutvikling

Boyle m.fl. (2018) argumenterte for at strategier for bytransformasjon, med vekt på bærekraftig byutvikling, må baseres på *samstyring* og en forståelse av markedsdynamikker, som relateres til forholdene i hver enkelt by. I tillegg vektlegges medvirkning. Det vises til et verktøy, «Neighbourhood Sustainability Assessment Tools» (NSA) som et viktig rammeverk i arbeidet med bærekraftig byutvikling. Ut fra en antakelse om at megabyer stort sett er ferdig utbygget, rettes oppmerksomheten mot mindre utbygde byer. Læring og overføringsverdi er primært at bærekraftig utvikling må tilpasses lokale forhold og at samstyring anses som nødvendig styringsform i byutviklingen.

4.5 Styring og urban infrastruktur

Dijst m.fl. (2002) fokuserte *urban infrastruktur*, blant annet med et økonomisk perspektiv knyttet til hva som gjør investeringer på dette feltet vellykket. Det argumenteres for at investeringssuksess avhenger av hvordan husholdninger, selskaper og institusjoner vil benytte infrastrukturen til daglig og hvilke investeringsstrategier nøkkelaktører velger. Kunnskap om dette kan hjelpe offentlige og private aktører til å håndtere kompleksitet og usikkerhet i en dynamisk urban situasjon, heter det. Boka tar opp hvilke former for *samstyring* som egner seg i fordelingen av kollektive goder til bybefolkningen, hvordan ulike aktører er koblet til hverandre, og hvordan nettverk av aktører som er involvert i politiske og administrative beslutningsprosesser, fungerer. Boka er basert på casestudier av Antwerpen, Geneve, Milano, Oslo, Torino og Zurich, og kan være nyttig for alle med interesse for hvordan byer styres og fungerer, hevdes det.

4.6 Styring og neoliberalisme og desentralisering

Savini (2013) mener *neoliberalisme og desentralisering* undergraver sentrale myndigheters muligheter til å gjøre statlige hensyn gjeldende i lokale kontekster og dermed har få muligheter til å intervenere i overordnet byplanlegging. Det skyldes at byer har tilstrekkelig selvstendighet til selv å definere innholdet i egne arealplaner. Forfatteren utfordrer denne forståelsen av mulighetene for statlig planlegging, for selv om nasjonale myndigheter har mindre makt over lokal planlegging enn de har på nasjonalt nivå, har de likevel styringsmuligheter i fysisk planlegging. Gjennom eksempler fra Randstadt (Tyskland), pekes det på ulike former for nettverksstyring og samstyring som kan gjøre at nasjonale myndigheter kommer mer i inngrep med politikkutforming i fysisk planlegging. I Norge står lokaldemokratiet sterkt, nedfelt i Plan- og bygningsloven. Nasjonale og regionale myndigheter kan imidlertid intervenere gjennom innsigelser i plansaker eller når nasjonale og regionale interesser står på spill.

4.7 Styring og medvirkning i planprosesser

Dette er tema for flere artikler og relateres til ulike transformasjonsprosesser i tidligere næringsområder, sjøsideutvikling osv. Van Empel (2008) tok opp hva som bør avklares i forbindelse med medvirkning. Det gjelder for eksempel aspekter ved utbygginger som egner seg best for medvirkning, hvilke spørsmål som krever fagekspertise, og hva deltakere kan forvente å oppnå. Lokal medvirkning betraktes, også av forfatteren, som verdifull i utbyggingsprosesser. Argumentet er at medvirkning har potensiale til å oppnå mer bærekraftige resultater. Forfatteren viser til forskning som vektlegger at medvirkning kan bidra til å skape tillit til og oppslutning om tiltak som gjennomføres. Gjennom studier av deltakelse i planprosesser (New Zealand) understrekes det at lokalsamfunnet er interessert i de bygde omgivelsene og i planprosesser, forutsatt at fagekspertisen verdsetter bidragene de kommer med. Det trekkes ingen konklusjoner når det gjelder deltakernes motivasjon for å medvirke, men inntrykket er at involverte fagfolk har en sterkt interesse i erfaringsdeling og nettverk som omfatter lokalbefolkningen. Deltakerne (fra lokalsamfunnet) var ofte mer opptatt av «store

linjer» enn av egeninteresser. Studien antyder at *medvirkningsprosess* og *resultat* ikke må evalueres hver for seg, men i sammenheng.

Også Solitaire (2005) tok opp forutsetninger som må overvinnes før deltakelse kan finne sted i komplekse byplanprosesser, i dette tilfellet i tidligere næringsområder, og hvilke temaer det er mest aktuelt å medvirke i. Selv om disse studiene er fra New Zealand og USA, og medvirkningsprosesser kanskje skiller seg fra det norske systemet, er det likevel noe overføringsverdi. I Norge er medvirkning lovpålagt og nedfelt i den Europeiske Landskapskonvensjonen. Likevel kan maktforskjeller gjøre seg gjeldende, blant annet er noen som regel flinkere til å fremme sine interesser enn andre.

5 Økonomi, finans og styring

5.1 Økonomi og finans

De fleste artiklene som tar opp forholdet mellom byutvikling, finansiering og økonomi, er prosjektorienterte i den forstand at de ser på større og mindre prosjekter framfor å være mer makroorienterte. De er i stor grad caseorienterte og basert på dokumentstudier, og/eller informantintervjuer eller fokusgrupper. Det er i mindre grad gjort forsøk på å teoretisere, og slik sett blir artiklene i hovedsak av beskrivende karakter. Imidlertid, i flere artikler diskuteres sammenhengen mellom trender i samfunnsutviklingen og byutvikling.

Forholdet, eller konflikten, mellom marked og styring står sentralt innenfor mange samfunnsfag og er en viktig skillelinje i politikken. Denne konflikten ser vi også innenfor lokal og regional politikk og planlegging. Stillingen (eller styrken) til den ene eller andre siden i denne konflikten har også endret seg betydelig over tid. Kleven (2011) har i sin bok om planleggingens historie i Norge fra 1965 til 2006, blant annet vist hvordan styringsambisjonene var svært sterke i begynnelsen av perioden, da Stortinget innførte obligatorisk generalplanlegging i norske kommuner. Om styringsambisjonene avtok eller ei over tid, kan diskuteres. Imidlertid økte troen på markedet generelt, og gradvis ble en mer markedsorientert planleggingsfilosofi innført. I 2008 kom den nye plan- og bygningsloven, som innebar mer vekt på strategisk samfunnsplanlegging som utviklingsverktøy, og der markedet har en mye mer sentral plass enn tidligere. Parallelt til denne utviklingen innenfor planleggingsfaget har vi sett tilsvarende utvikling innenfor mange samfunnsfag, som økonomi, statsvitenskap, geografi, sosiologi og andre. De har det til felles at markedet i stadig større grad bestemmer fordeling av ressurser til ulike formål og grupper, mens det politiske tidligere var viktigst. Effektiv ressursutnyttelse i økonomisk forstand framstår mer og mer som et mål i konkurranse med andre mål, snarere enn som et middel til å oppnå andre ting.

Internasjonal litteratur knyttet til transformasjon av bysamfunn gjenspeiler dette skiftet fra styring til marked (Dziomba 2006, Guironnet m.fl. 2014, Häussermann og Simons 2001). Der planleggingen tidligere vektla politiske målsettinger knyttet til byutvikling, vektlegges nå prosjektøkonomi i sterkere grad. Med andre ord kan man si at prosjektenes økonomiske bærekraft er definert i markedet og har blitt prioritert opp, mens den sosiale og miljømessige bærekraften er blant de politiske målsettingene med byutvikling, og har blitt prioritert ned. De fleste artiklene vi har sett på innenfor finansiering og økonomi, tar denne utviklingen for gitt. Utviklingen kalles ofte for liberalisering.

Det er flere årsaker til denne liberaliseringen. For det første kan man se vridningen fra styring til marked som en generell samfunnstrend. Troen på markedet som allokeringmekanisme har økt. Det betyr samtidig at viljen til å ta politiske grep kan ha blitt mindre. For det andre har økonomiske svingninger hatt store konsekvenser for offentlig sektors evne til å gjennomføre politisk ønskete byutviklingstiltak i egen regi. Dette henger igjen sammen med flere ting. For et gitt skattetrykk reduseres offentlige inntekter i nedgangstider, og dermed offentlig

sektors økonomiske muskler. I stedet for tradisjonell motkonjunkturpolitikk, vektlegges i større grad løpende inntektsstrømmer når byutviklingsprosjekter skal gjennomføres i lavkonjunkturer. I kjølvannet av finanskrisa rundt år 2008 og påfølgende lavkonjunktursituasjon, har mange transformasjonsprosjekter blitt utsatt eller avblåst på grunn av pengemangel. Ved å overlate investeringene, og til dels drift, til private i en slik situasjon, vil byutviklingsprosjekter likevel kunne gjennomføres.

Med økt bruk av privat kapital i byutviklingsprosjektene, mister myndighetene en del av kontrollen over målsettingene med prosjektene. Fokus i prosjektene blir i større grad økonomisk avkastning på privat kapital og i mindre grad samfunnsmessige målsettinger, som for eksempel sosial og miljømessig bærekraft. Dette har fordelingsmessige konsekvenser, for eksempel ved at områder i mindre grad enn (politisk) ønskelig åpnes opp for byens befolkning, at det bygges næringsbygg framfor boliger (eller omvendt), at det bygges dyre boliger framfor billigere («affordable») osv. Slik sett kan både tradisjonelt næringsliv, og arbeidsplasser i tilknytning til dette, og eksisterende befolkning bli presset ut når det blir lagt (for) stor vekt på prosjektets økonomiske avkastning. Dette erstattes med et moderne næringsliv, andre typer arbeidsplasser, privatiserte møteplasser (kafeer og restauranter framfor parker) og en annen klasse mennesker. Hva som skjer med de aktivitetene og aktørene som blir presset bort, vektlegges i liten grad i markedsrettete transformasjoner, fordi det faller utenfor selve utbyggingsprosjektet.

Imidlertid vil det fortsatt være et myndighetsansvar å sikre at også de som skyves bort, får et tilbud etter utbyggingen. Kostnadene ved dette vil i mange situasjoner fortsatt være offentlige (Lightbody 1998). Eventuelt vil kostnadene bli overlatt til husholdninger og bedrifter som er presset bort. Slik sett representerer markedsbasert transformasjon av (sentrale) arealer en overføring av midler fra lokale brukere og myndigheter til finanskapitalen. Avkastningen på investeringen blir en funksjon av utskyvningsprosessen.

Det er forskjell på arealer. Når de transformeres, kan det være store kostnader knyttet til opprydding og tilrettelegging (infrastruktur) for bruk. Utbygger kan bære slike kostnader dersom kostnadene til selve utbyggingen er lave, sett i forhold til inntektene utbygger vil få i markedet. Imidlertid er det flere forhold som trekker i retning av at utbygger normalt ikke vil stå for disse «tilleggskostnadene». Når det gjelder infrastrukturutbygging, er det alltid et spørsmål om hvem som skal ha ansvaret for dette (samfunnet eller utbygger). I Norge er det helt klart vanligst at det er samfunnet som bygger veg, vann, kloakk, varme, elektrisitet etc. fram til bygningen. Dette gjelder også for transformasjonsområder. Samfunnsservice, som blant annet offentlige tjenester, blir tilbudt av det offentlige. Når det gjelder oppryddingskostnader i transformasjonsområder, er det mer uklart. Her kan man se for seg at oppryddingen gjøres av tomteeier (som kan være offentlig eller privat) eller utbygger. I den grad det stilles krav om opprydding, kan dette bidra til å redusere forventet profitt som følger av transformasjonen. Det innebærer samtidig at forventet profitt er lavere i transformasjonsområder som krever forholdsmessig stor opprydding, noe som gjør de mest oppryddingsintensive områdene mindre attraktive i en markedsstyrt byutvikling. Generelt sett er det slik

at jo større infrastruktur- og oppryddingskostnader et prosjekt har, desto mindre attraktivt er det for investor å gå inn. Samtidig kan «bordet fange» dersom et prosjekt er en viktig del av byutviklingen i et område. Det kan føre til at det offentlige bli påført ytterligere kostnader til infrastruktur og opprydding dersom man ønsker å la private gjennomføre transformasjons- eller utbyggingsprosjektet og det er utbyggingspress i området.

Overgangen fra politisk styrt til mer markedsorientert utbygging kan også ha effekter for hvordan et område blir seende ut, rent fysisk og estetisk. Jo høyere tomteprisene (inkludert opprydding og infrastruktur) er, desto større blir presset på arealutnyttelsen. Det betyr for eksempel at et politisk ønske om å «bygge lavt» kommer i konflikt med økonomiske mål om å tjene mest mulig penger («bygge høyt»). Det er flere grunner til at det er mer lønnsomt å bygge høyt. For det første øker arealutnyttelsen. I tillegg kan det være stordriftsfordeler knyttet til bruk av fellesarealer og andre bygningstekniske forhold. Samtidig gir det lavere kostnader knyttet til infrastruktur og opprydding, i hvert fall per kvadratmeter. På den andre siden kan tett og høyt føre til lavere priser for boliger. Fra utbyggers side blir det derfor et spørsmål om å utforme utbyggingsprosjektet slik at differansen mellom salgspris og kostnader (profitten) blir høyest mulig.

Artiklene om bytransformasjon og finansiering/økonomi tar altså i stor grad opp forholdet mellom utbygging i offentlig og privat regi, og de vektlegger at det har vært en økende *markedsorientering* de seinere årene. Dette har stor betydning for prosjektene, siden avkastning blir en ledende faktor mens andre samfunns mål blir prioritert ned. Slik sett vil ikke byen og lokalsamfunnet få det helt som man vil med økt markedsorientering. Mange steder har også lov- og regelverket blitt tilpasset den nye situasjonen, slik at utbygger står friere og utbyggers valg dermed får ekstra store effekter for byutviklingen. Pendelen svinger ytterligere i retning utbyggers profittpreferanser ved at offentlig sektor er «fattig» mange steder, særlig i lavkonjunkturer. Dermed ønsker kanskje lokale og regionale myndigheter for eksempel å prioritere tjenesteproduksjon framfor byutvikling. Imidlertid blir man likevel påført kostnader, både i tilknytning til infrastruktur og opprydding og i tilknytning til hva som skjer med dem som brukte byen før transformasjonen.

I flere artikler understrekes det at det er «internasjonal storkapital» som investerer i byutvikling i deres case. Internasjonal storkapital går i utgangspunktet dit den kaster mest av seg innenfor de områder porteføljen prioriterer. Da vil transformasjon av sentrale byområder ett sted konkurrere med tilsvarende prosjekter andre steder. Dette påvirker også lokale myndigheters villighet til å godta krav som stilles fra investors side, enten kravene er knyttet til lettelsener i eksisterende (rigid) regelverk, kostnadsdrivende faktorer eller lokale ønsker/krav ellers.

Noen artikler diskuterer metoder for verdsetting, ofte knyttet til standard verktøy (som NK-analyse). De tar i mindre grad for seg *hvordan* vanskelig kvantifiserbare forhold skal inkluderes i en samfunnsøkonomisk lønnsomhetskalkyle, men understreker at analyser som utelater infrastrukturkostnader, sosiale kostnader

og miljøkostnader fra regnestykket ikke er tilstrekkelige. Ulike former for evalueringer diskuteres også, men i liten grad.

5.2 Løsninger: Ulike former for OPS – offentlig-privat samarbeid

Makten har altså forskjøvet seg fra politikk og styring til markedet. Ulike former for samarbeid kan rette opp en del av de skjevhetene som kommer fram, blant annet OPS (offentlig-privat samarbeid). Artiklene innenfor OPS kan deles i to – de som er kritiske til denne formen for samarbeid og mener OPS ikke fører til større balanse i beslutningene, og de mer optimistiske som mener at slikt samarbeid kan avtales ved oppstart av prosjektet og følges opp gjennom prosjektets ulike faser.

Häusserman og Simons (2001) så på de store byfornyingsprosjekter i sentrum av Berlin, og påpeker at slike prosjekter er risikofylte og lever sitt eget liv. Når de først er satt i gang, med private investorers aksept av de offentlige kravene, kan dette endre seg over tid. Regelverket kan bli endret for å tilpasse utbyggers krav. Da er det litt «bordet fanger», og makten svinger over på investors side. Det kan gjøre at bindende avtaler ved prosjektstart har liten betydning for sluttproduktet. I tilfellet Beograd viser Grubbauer og Camprag (2019) at lokale myndigheter er blitt overkjørt av en allianse av sentrale myndigheter og privat kapital. De sier at det nasjonale lovverket er blitt endret for å tilpasses prosjekttypen, blant annet når det gjelder å definere offentlige (samfunnets) interesser, legalisere visse typer kontrakter og minimere risiko for private investorer. Antonucci og Marella (2017) tok opp forholdet mellom type bygg og byggekostnader knyttet til transformasjon i byer, sett i lys av økonomisk stagnasjon. I tre av seks eksempler ble det gjort store endringer i de opprinnelige planene, mens de andre tre ble gjennomført som planlagt. I Tübingen (Tyskland) har man ifølge Schaller (2018) positive erfaringer med OPS. Man utviklet en modell der myndighetene beholdt styringen, bestemte strategier for hvor og når private skulle inn, og man desentraliserte makt til mindre utviklingsgrupper. På den måten kunne man ta hensyn både til den økonomiske agendaen og inkludering av bredere sosiale verdier i transformasjonen.

Barcelonamodellen er diskutert av flere. Dette er en modell der megahendelser som for eksempel olympiske leker er blitt brukt i byutviklingen. Tanken med modellen er at ulike aktører (myndigheter på ulikt nivå, lokalt næringsliv og befolkning, og selvsagt privat kapital) gjennom OPS skal få innflytelse på byutviklingen knyttet til arrangementene. Artiklene tar i liten grad opp turisme som kan være en langsiktig effekt av byutviklingen i Barcelona. Imidlertid diskuteres det om modellen virker, og til og med om den egentlig finnes. Noen, som Blanco (2009), sier at modellen fungerte og kan brukes, men at den kritiseres fra akademia og eliter. Degen og Garcia (2012) hevder at Barcelonamodellen har bidratt til kulturell byutvikling rettet mot sosiale likeverdighet og markedsføring av byen, men at modellen er under press etter hvert som byens konkurranseevne er kommet i fokus som politisk mål for utviklingen.

6 Transformasjon – betydningen av eierskap og eiendomsutvikling

En liten, men viktig del av litteraturen om transformasjon ser på betydningen av eierskap og eiendomsutviklingens logikk for transformasjonsprosesser. Eierskap er viktig fordi tomtene som utvikles ofte er i privat eie, og ofte er det mange ulike grunneiere innenfor ett og samme område. «*Multiple landowners*» er i seg selv kjent som en hindring for transformasjonsprosesser. Betydningen av eierskap vil variere med autoriteten som lovgivningen gir kommunen i forhold til å ta over eierskap til eiendommer som inngår i et transformasjonsområde. Da det er fellestrekk mellom Storbritannia og Norge, ved at tomtene ofte er i privat eie, og lokalforvaltningen er tilbakeholden med å bruke ekspropriasjon, er den britiske litteraturen spesielt relevant for Norge. Noe av litteraturen går i dybden på hvorfor eierskap er en hindring, mens andre ser på hvordan en best kan overkomme de hindringene som eierskap utgjør (6.1). Det er også mye litteratur som ser på hvordan kommersiell eiendomsutvikling påvirker beslutninger om igangsetting av transformasjonsprosjekter. Fra land der det offentlige har større grad av eierskap kommer en del bidrag til beslutningsprosesser for å velge ut hvilke områder som er best egnet for transformasjon, blant annet TIMBRE-modellen (6.2). Sist men ikke minst, er det mange bidrag som ser på de forretningsmessige aspektene av kommersiell eiendomsutvikling gjennom transformasjonsprosjekter. Det er blant annet en forutsetning at salgsverdien – verdien etter utvikling - er høyere enn summen av alle kostnader inkludert avkastningskrav til kapitalen investert i utviklingsprosjektene. I litteraturen om transformasjon er det da også et betydelig innslag av studier av hvordan spesielle kvaliteter er med på å gjøre transformasjon kommersielt interessant. Eiendomsutvikling regnes som langsiktig og risikofyllt, og investering i transformasjon har lengst tidshorisont og størst risiko. Bidragene ser også på hvilken rolle omløpshastigheten spiller (tiden fra investering til avhending), og hvordan usikkerhet prises, deriblant usikkerhet om inntektenes størrelse og tidspunkt (6.3).

6.1 Hvorfor eierskap hindrer transformasjon

Gjennomgangen viser at et skotsk fagmiljø over mange år har bidratt med studier av sammenhengen mellom eierskap og regenerering av byområder. Adams har stått sentralt, med studier av forskjellene mellom grunneiers vurderinger av potensielle utbyggingsmuligheter, hvilke føringer økonomisk rasjonalitet legger for grunneiers handlinger, og hvordan myndighetene helst ser at markedet reagerer. I 1998 kom myndighetene i England med et politikkdokument for en mer bærekraftig vekst, som omhandler vekststrategi basert på omdanning og oppgradering av bysentrum. I oppfølgingen av politikkdokumentet har mye av forskningen i England vært rettet mot plansystemet (Barker 2006),

Bidraget fra det skotske fagmiljøet har vært å se på grunneiersituasjonen og dynamikken som ligger bak at private grunneiere setter i gang utvikling. Det er stor utveksling mellom akademikere i England og Skottland, samt mellom UK og Australiske forskningsmiljøer. Den vanligste strategien for å få kontroll over tomtene har vært at en utvikler kjøper opp flere tomter, og når vedkommende eier

eller har kontroll over et tilstrekkelig antall tomter, er grunnlaget lagt for utvikling. Oppkjøpsstrategien er imidlertid kostnadskreven og forutsetter at det er investeringsvillig kapital bak utviklerne, noe som ikke alltid er tilfelle. I kjølvannet av dette kan vi se to trender i forskningen: Den ene ser på alternativer til omfattende oppkjøp. Den andre ser på betydningen av offentlig eierskap. Adams m.fl. (2001a) representerer den første kategorien. I bidraget som er henvist til her, presenteres en studie som får fram viktige vurderinger for grunneiere i tilknytning til beslutninger om salg av tomter, utvikle selv, eller beholde tomten og fortsette med samme virksomhet. De fant at grunneieres vurderinger er langt mer sammensatt og komplekse enn kun økonomiske forhold, blant annet at selve eierformen, som for eksempel sameie, borettslag eller stiftelse, kan være et hinder mot salg, men også eiers historikk og emosjonell binding til eiendommen påvirker slike beslutninger.

Eidelman (2018) har tatt for seg betydningen av offentlig eierskap, og gjennom en studie av hvordan offentlig eiendommer er fordelt i transformasjonsområdene i Toronto, Vancouver og Chicago finner forfatteren at kombinasjonen av geografisk sammenhengende eiendommer innenfor utviklingsområdet og det samlede antall kvadratmeter som kommunen eier relativt til områdets størrelse, har betydning for om offentlig eierskap fører til at også private grunneiere velger å ta del i transformasjonen. Dette er knyttet til det offentliges posisjon i det konkrete utviklingsområdet. Funnene er viktige dersom en kommune ønsker bruke arealoppkjøp som strategi for å få i gang transformasjonsprosesser, og forteller altså at kommunen både må erverve en betydelig andel tomter og at disse bør ligge nær hverandre og sentralt i utviklingsområdet. Adams m.fl. (2002) følger delvis opp dette ved at de peker på at kommunen *må ta i bruk skreddersøm* dersom de skal lykkes. Dette gjelder både oppkjøp og motivering av grunneiere for å få dem til å ta del i transformasjonsprosesser, samt når de følger opp grunneiere i reguleringsprosessene og fram mot ferdigstilling.

Miceli and Sirmans (2007) føyer seg inn i en rekke studier av hvordan enkeltgrunneiere kan blokkere en utvikling. De tar til orde for *større bruk av ekspropriasjon* for legge til rette for transformasjon. Økt bruk av ekspropriasjon sto også sentralt i Adams m.fl. (2002). De peker på at større villighet til ekspropriasjon er nødvendig, men erkjenner samtidig at det er usannsynlig at det blir normen for kommunale inngrep og tilrettelegging av transformasjonsområder. De uttrykker skepsis til jordskifte i slike områder, i hovedsak fordi dette ofte ikke gir myndighetene sterke nok kort på hånda. Dersom jordskifte i større eller mindre grad forutsetter *frivillighet* fra eiersiden, kompliseres hele ordningen, mener de.

Adams m.fl. (2001b) trakk fram partnerskap som et godt alternativ («Urban Partnership Zones») – et partnerskap kjennetegnes ved at kommunen etablerer en organisasjon med ansvar for å gjennomføre transformasjon av et bestemt område. Kommunen kan eie tomter i området eller ikke, men kommunen må etablere et selskap og invitere eksterne investorer inn i dette. Eksterne investorer kan være et foretak som allerede eier tomter i området, men heller ikke det er noen forutsetning. Hensikten med selskapet, som er et slags «joint venture», er at det *settes i stand til å kjøpe opp tomter*. Eksisterende grunneiere inviteres,

men dersom de ikke ønsker å gå inn i selskapet med egen eiendom, blir de ekspropriert (og kompensert, selvsagt). I tillegg følges det opp med ordninger for rask planlegging og saksbehandling og skattemessige fordeler i de tilfellene det etablerers næringsvirksomhet i områdene. Eksemplene de viser til er fra Hong Kong og England, og vektlegger myndighetens oppfølging både for å få eiere til å konvertere tomter til nye formål, og ny virksomhet til å etablere seg i området.

6.2 Eiendomsutvikling og valg av transformasjonsområder

Church (1990) og Bertolini (1998) koplet transformasjon til forbedrete transporttilbud. De illustrerte opphavet til selve transformasjonsproblematikken der gjenbruk av sentrale områder settes på dagsorden, sammen med diskusjoner om videreutvikling av transportnoder og bedret framkommelighet. Dette er en internasjonal, urban variant av ATP-politikken i Norge. Bertolini (1998) sammenliknet fem stasjonsområder i ulike land (Nederland, Frankrike, England, Sverige og Sveits) og fant at alle områdene bestod av et konglomerat av aktører. Dette gir opphav til komplekse utfordringer som planleggingen må rydde i og finne løsninger på. I artikkelen pekes det på at transportmyndigheter (jernbane) også blir by-utviklere ved at de skiller ut eiendom i stasjonsområder som egne enheter og søker å utvikle disse områdene. Dermed går utbyggingen av transport-årene hånd-i-hånd med statlig eiendomsutvikling. Artikkelen så også på sammenfall i utfordringene som stasjonsutviklingen står ovenfor. Når det gjelder den *romlige dynamikken* som følger knutepunktutviklingen, hevdet Bertolini i artikkelen at uavklarte transporthensyn setter selve knutepunktene framtidige rolle i spill, samtidig som knutepunktene kan gi opphav til store lokale ringvirkninger. Områdene opplever funksjonelle dilemmaer som må løses – arealene skal tjene mange ulike formål samtidig. Det pekes også på at alle områdene erfarer lange perioder preget av *midlertidighet* og stor *grad av usikkerhet*. I tillegg vektlegges det at slike områder står overfor finansielle utfordringer som igjen utløser organisatoriske og styringsmessige utfordringer.

Bidragene er således sentrale både for mye av den senere litteraturen om tematikken og om utviklingen av norske knutepunkter. Dixon (2007) tok eksplisitt utgangspunkt i bærekraftbegrepet og så deretter, med utgangspunkt i et eksempel fra England, på hva som skal til for at utbyggere allokere ressurser til transformasjonsområder. Artikkelen fant blant annet at utbyggerne er minst fortrolig med det sosiale bærekraftbegrepet. Den økonomiske bærekraften kan kokes ned til forhold som fremmer og hindrer investering, der usikkerhet om avkastning, framdrift og det fulle kostnadsbildet er hindringer. Miljømessig bærekraft har også utbyggerne godt grep om, og de går ofte i spissen for å utvikle bærekraftige materialer og byggetekniske løsninger. Utbyggerne har vansker med å konkretisere det sosiale, og Dixon mener at utbyggerbransjen trenger dialog med hverandre og med kommunens planleggere for å stake ut riktig kurs i forhold til å ivareta sosial bærekraft. Bærekraftbegrepet og transformasjon er også diskutert av Bartke m.fl. (2017). Her er det TIMBRE-modellen som utforskes. Modellen er diskutert mer inngående i kapittel 3 i denne litteraturgjennomgangen. Artikkelen tester modellen på flere hundre potensielle

transformasjonsprosjekter i Tyskland, Italia og Romania og finner at den er godt tilpasset kompleksiteten i transformasjonsprosjektet. De mener imidlertid at TIMBRE-analyser ville vært mer realistisk dersom den tok hensyn til flere usikkerhetsmomenter og gjennomførte flere følsomhetsanalyser. Det er først når modellen oppleves som relevant av grunneierne, at den kan gi retning for hva som kan bli framtidige transformasjonsområder.

6.3 Forretningsmessige aspekter ved kommersiell eiendomsutvikling gjennom transformasjon

Svært mange transformasjonsområder verden over ligger nær havner eller elvebredder fordi moderne havnelogistikk har redusert behovet for areal for havnevirksomhet og fordi industri som tidligere var avhengig av å ligge nær vann, og som var grunnlaget for at byen vokste opp rundt fabrikkene, er flyttet til områder der de kan ekspandere. Nærhet til vann verdsettes høyt av boligkjøpere. Wood og Handley 1999 viser til at dette ikke kommer av seg selv men forutsetter systemer for å rydde/renske og vedlikeholde kvaliteten på vannet (dvs. fravær av forsøpling, unngå stillestående vann, hindre flom osv.) som viktig. De peker også på at myndighetene har en rolle i å sørge for å sette dette på dagsordenen, og at det i seg selv vil øke investeringsvilligheten i slike områder (også dersom utbygger bidrar til rydding/rensing og vedlikehold). I en oppfølging av Dixon (2007) trekker Dixon (2008) fram at eiendomsutviklerbransjen er avhengig av at kommunene tilrettelegger for smart og forutsigbare håndtering av transformasjonsområdenes mange negative forhold. Dette omfatter de betydelige usikkerhetene om forurensing og opprensning, tilrettelegging for infrastruktur og andre felles tiltak. Det er viktig å merke seg at diskusjonen ikke tar stilling til økonomiske bidrag fra utbyggerne til opprenskninger. Likevel er det økonomiske en utfordring som utbyggere ikke er gode til å ivareta. Det skyldes ofte at forurenset grunn berører området som helhet og ikke en utbyggers tomter og byggegrunn. Artikkelen til Heer (2008) handler om mye av det samme og peker på at når byene kappes om å få eiendomsutviklere til å investere i store utbyggingsprosjekter, må de tilby gode betingelser. Artikkelen peker på at dette utfordrer planlegging ved at planer må kombineres med en rekke andre tiltak. Dermed får planlegging preg av entreprenørskap like mye som arealmessig avklaring og tilrettelegging.

7 Oppsummering og konklusjoner

Litteraturgjennomgangen er gjennomført blant tidsskrifter i søkebasen Scopus, med ca. 20 000 tidsskrifter. Det fins også andre søkebasen, men vi mener det eksisterende materialet gir en god oversikt over den internasjonale forskningen på feltet.

Litteraturgjennomgangen ser på transformasjon av i byområder, med vekt på omdanning av næringsarealer, det som i den internasjonale litteraturen benevnes som «brownfields». Etter en gjennomgang av definisjoner, landet vi på at dette dreier seg om områder som er påvirket av tidligere bruk på eller utenfor det angjeldende området, er neglisjert eller utnyttet, befinner seg innenfor helt eller delvis bymessig areal, avhenger av tiltak for å komme nyttig bruk igjen, og kan ha reelle eller antatte forurensningsproblemer.

Etter en gjennomgang av søketreff sto vi igjen med 1 underkant av 300 treff. Disse ble fordelt på temaer for nærmere gjennomgang, og resultatet presenteres i fire kapitler: Politikk og styring, Planlegging og styring, Økonomi, finans og styring, og Transformasjon – betydningen av eierskap og eiendomsutvikling. Noen av arbeidene er relevante for mer enn ett av temaene og benyttes mer enn en gang, fortrinnsvis med ulike vinklinger.

Under temaet Politikk og styring peker valg av områder for transformasjon og gjennomføring seg ut. For valg av område, illustrerer TIMBRE forskning som har produsert systemer for valg av hvilke(t) næringsareal som bør transformeres. Systemet rangerer mulige arealer på grunnlag av en prosedyre med indikatorer som summeres til faktorverdier, deretter summeres til dimensjonsverdier og til en samlet skår. I tillegg er det utviklet systemer for selve transformasjonsprosessen, ofte med et fokus på håndtering av forurenset grunn fordi forurensning ofte vanskeliggjør transformasjon.

De fleste systematiske barrierestudier er fra USA, men det er også et par fra Europa. Det er fellestrekk og særtrekk. Det er felles at forurensning er en barriere, men USA-studiene er mer detaljert og vektlegger usikkerhet med hensyn til barrierer og reguleringer. Det er også et fellestrekk at områder i perifert beliggende byer og områder med lavere sosioøkonomisk status fungerer som barrierer. Fra et eierskap- og eiendomsutviklerperspektiv pekes det på at ikke-økonomiske faktorer gjør seg gjeldende for eiere, mens det for utviklere også dreier seg om tilgang til tilstrekkelig kapital til å kjøpe ut eiere og få hånd om større områder, samt tilgang til nødvendig infrastruktur.

Kapitlet om Økonomi, finans og styring, vektlegger og utbroderer forholdet og et mulig partnerskap mellom det offentlige og private for å få satt i gang utviklingen av transformasjon, der målet om profitt ofte møter andre, samfunnsmessige målsettinger. Denne utviklingen knyttes til en generell overgang fra politisk styring til markedsmessig styring av byutviklingen, med de konsekvenser det kan ha for hvilke transformasjonsområder som settes i gang og hvordan dette skjer. Offentlig–privat samarbeid (OPS) har vokst fram som et forsøk på håndtere skjevheter som oppstår i en markedsbasert byutvikling. Noen peker på eksempler der OPS synes å ha fungert, mens andre trekker fram erfaringer med

motsatt fortegn. Mye synes å avhenge hvilken rolle det offentlige tar og maktforholdet mellom private og offentlige aktører.

Selv om litteratursøket ikke avdekket mange juridiske og legale arbeider, var det eksempler på artikler som tok for seg lovgrunnlag og reguleringer med sikte på å komme fram til standardiserte regler i en EU-sammenheng, blant annet forholdet mellom overordnede lover og subsidiaritetsprinsippet, men også reguleringer for å avklare ansvar for kostnader som påløper som følge av forurensning.

Under Planlegging og styring vektlegges betydningen av samstyring og medvirkning for å få til gode transformasjonsprosesser og –resultat. Det understrekes at omdanning av tidligere industriarealer også kan bety etablering av parker og grøntstruktur i byer. Etableringen av parker og grønne arealer vil ofte kreve offentlig plangrep, med aktiv offentlig deltakelse på eiersiden eller med støtteordninger. I forlengelsen av dette kommer hensynet til bærekraft, der litteraturen peker på at bærekraftig utvikling må tilpasses lokale forhold.

Sjøsideutbygging er et spesialtilfelle av transformasjonsområder. I mange tilfeller er det tidligere havneområder som frigjøres, og der det er et maktspill mellom havne- og planmyndigheter, samt brukere av havneområdene. Igjen vektlegges det at samstyring spiller en viktig rolle. Samtidig er dette attraktive boligområder, som ofte befolkes av hushold med høy inntekt og formue.

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Vedlegg – Samling av artikler

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2000

1. Adams, D., et al. (2002). "Vacant urban land: Exploring ownership strategies and actions." *Town Planning Review* 73(4): 395-416.
 - Although the redevelopment of vacant land, especially for housing, has become an increasingly important component of British planning policy, urban land ownership has been downgraded as a policy issue because of its inherent complexity and potential for controversy. On the basis of research into the strategies and actions of 155 owners of vacant urban land or obsolete urban property within 80 substantial redevelopment sites, this paper reinterprets earlier notions of active and passive owner behaviour in urban redevelopment. The results suggest that brownfield redevelopment could be accelerated by a more fine-grained and participatory approach to urban land policy. This should aim to take advantage of the desire of most owners to promote redevelopment (or at least not to stand in its way) while encouraging the transfer of land away from the minority of owners who are hostile to redevelopment efforts.
2. Adams, D., et al. (2001). "Managing urban land: The case for urban partnership zones." *Regional Studies* 35(2): 153-162.
 - Multiple ownership of land can act as a significant barrier to brownfield redevelopment. Despite renewed interest in compulsory purchase, it is unlikely to become the normal remedy for multiple ownership, owing to its cost and complexity. Drawing on international experience and recent research, this article proposes the concept of an Urban Partnership Zone, in which existing landowners would be entitled to participate alongside the local authority and a chosen development partner in a joint-venture redevelopment company. Combined with greater planning certainty and other benefits, this innovation would enable the development process to operate more rapidly without immediate compulsory purchase.
3. Adams, D., et al. (2001). "Ownership constraints to brownfield redevelopment." *Environment and Planning A* 33(3): 453-477.
 - The authors examine the nature and significance of ownership constraints within the urban redevelopment process. They suggest that such constraints derive from the distinctiveness of land as a commodity, the imperfect nature of the land market, the behavioural characteristics of landowners, and the institutional context for land ownership, exchange, and development. From this, they propose a common definition of ownership constraints as a basis for their practical classification. This divides ownership constraints between those that concern deficiencies in, or limitations to, the extent of ownership rights in potential development land and those that relate specifically to the strategies, interests, and actions of those who hold

- such rights. The various types of ownership constraints that fall under these headings are then explored, with research presented into the extent to which they each disrupted plans to use, market, develop, or purchase eighty large redevelopment sites in four British cities between 1991 and 1995.
4. Adams, D. and N. Hutchison (2000). "The urban task force report: Reviewing land ownership constraints to Brownfield redevelopment." *Regional Studies* 34(8): 777-782.
 - As the debate on brownfield land has intensified, there has been increasing recognition of the crucial role of land ownership in strategies and programmes designed to achieve urban regeneration. It has become apparent that the implementation of redevelopment projects depends very much on successful land assembly including the acquisition of lesser ownership interests. Both costs and delays in concluding this crucial phase in the development process can harm the feasibility of redevelopment projects and prevent the realization of redevelopment opportunities. To illuminate this policy debate, this article seeks to define and classify ownership constraints to development and measure their recent impact in four British cities. Drawing on extensive recent research, the article suggests that significant ownership constraints may require to be resolved before brownfield redevelopment can proceed and that, in the past, state acquisition or intervention has made only a minor contribution to their resolution.
 5. Adams, D., et al. (2000). "Mind the gap! Taxes, subsidies and the behaviour of brownfield owners." *Land Use Policy* 17(2): 135-145.
 - This paper addresses two key research questions. First, how effective are fiscal measures in stimulating brownfield land regeneration? Second, what is the most effective fiscal measure: taxes or subsidies? The paper considers the results of a three-year study of land ownership constraints which was funded by the ESRC and completed in 1998. The research considered 20 development sites in each of four UK cities; Nottingham, Stoke, Aberdeen and Dundee. In the course of the study, 140 landowners were interviewed in order to ascertain their strategies, interests and actions in the development process. Detailed contextual interviews were also held with 36 organisations with valuable experience of planning and development at national or local level. The research revealed that brownfield redevelopment is increasingly driven by the availability of development grants and subsidies. The development prospects of 21 of the 80 research sites hinged on the availability of such development grants or subsidies. The paper considers a number of fiscal alternatives and concludes that both grants and fiscal penalties may be appropriate but that urban regeneration policy needs to be sufficiently fine grained to reflect differences in demand between localities. (C) 2000 Elsevier Science Ltd. All rights reserved.
 6. Aguilar, S.C, (2009) Decision making and brownfield management, *E a M: Ekonomie a Management*, 12(3): 19–32.

- The redevelopment of sites with the existence of historical contamination - in some specific cases most commonly known as "brown fields" - contains still open questions, not only in Central European countries. North and South America have experienced cases which not only suffer from a scarcity of financial resources, but also institutional limitations. The redevelopment of certain old contaminated areas can be attractive, because it might become a potentially lucrative area for redevelopment projects that can also bring interesting job and research opportunities. The paper presents a recapitulation of studies concerning the application of the decision and stakeholder theories for the solution of environmental problems, focusing mainly on brown field issues. We also analyzed the decision making processes in the management of contaminated land in the Czech Republic. Brown field management still lacks legislation in the Czech context; however the treatment of ecological burdens of the past has been regulated within the process of privatization at the beginning of the 1990's. The last part of the work focuses mainly on the remedial decision making for ecological burdens of the past in the Czech Republic. The main objective of this work has been to gather ideas from the local and international context, and to adapt them to the actual decision making processes of the management of historical contamination in the Czech Republic. We concluded that the tools provided by the stakeholder theory and the laws governing decision making, which are intended for setting remedial goals, are a key factor for the potential success of brown field management. At the end of the work there is a suggested solution diagram for the decision making process in the management of historical contamination in the Czech Republic that integrates the main ideas gathered after our recapitulation of studies.
7. Alexander, R. (2015). "Policy instruments and the remediation and redevelopment of contaminated properties." *Environmental Politics* 24(1): 75-95.
- Recent research examines the opportunities presented by policy instrument mixes as tools for public managers to address complex environmental problems by involving public, private, and civil society actors. However, gaps exist in this literature as to how these instruments become applied over a project's lifetime and whether these applications lead to the desired results. This comparative case study examines the selection and application of policy instruments during four brownfield clean-up and redevelopment projects, selected for their similar economic contexts but varying degrees of project success, in order to consider how policy instrument use over the course of a brownfield project's lifespan relates to its outputs. Findings suggest that local governments increase the use of policy instruments to retain partner involvement as project uncertainties increase but that the success of this strategy relies upon governance strategies that reflect environmental and political contexts. © 2014, © 2014 Taylor & Francis.

8. Alexander, R. (2012). "Network structures and the performance of brownfield redevelopment PPPs." *Public Performance and Management Review* 35(4): 753-768.
 - While much of the public-private partnership (PPP) literature focuses on the extent to which risk-sharing, dyadic relationships between government actors and private firms improve government service delivery, a growing body of work examines PPPs as a distinct form of network governance. In order to understand the extent to which the confluence of public and private interests shapes the management environment, it is important to explore how PPPs function as networks of actors over time. Framing four brownfield remediation and redevelopment projects as social networks, this research addresses the questions of how brownfield redevelopment PPPs reflect network characteristics over time and the ways evolving network structures link to project outcomes. Findings indicate that brownfield redevelopment PPPs operate as coordination networks, with higher project success traced to both higher network centralities and greater consistency of actors occupying network-centric positions. As network actors operating in central positions turn over and disrupt centralized information flows, PPP performance becomes more reliant on the ability of public managers to obtain and wield political power and economic incentives to retain the stability of overall network membership. These findings have implications for researchers and practitioners alike. © 2012 M.E. Sharpe, Inc. All rights reserved.
9. Alexandrescu, F.M, Pizzol, L. Zabeo, A, Rizzo, E. Giubilato, E. Critto, A. (2018) Identifying sustainability communicators in urban regeneration: Integrating individual and relational attributes, *Journal of Cleaner Production* 173: 278-291
 - The paper advances a conceptualization of sustainability in urban regeneration as communicative practice taking place within networks of social actors. To demonstrate the potential of this perspective, we propose an interdisciplinary methodology integrating social network analysis from sociology and multi-criteria decision analysis (fuzzy logic) from operations research to calculate a sustainability communicator score for each actor involved in a regeneration network. The score is based on three dimensions: a sustainability vision (relying on the three pillar model of sustainability), a formal network influence dimension (based on organizational practice and decision-making position) and an informal network influence dimension (drawing on degree, betweenness, eigenvector and closeness centrality measures from social network analysis). The framework allows the identification and ranking of sustainability communicators, based on the preferences of specific users, while also allowing for variable degrees of vagueness. We illustrate the methodology by means of a case study of a social network of actors (N = 28) involved in the sustainable regeneration of a brownfield site in Porto Marghera, Venice, Italy. The methodology is expandable beyond the actor level to allow for the ranking of more complex

network configurations for promoting sustainability. © 2016 Elsevier Ltd

10. Alexandrescu, F, Bleicher, A., Weiss, V.^b (2014) Transdisciplinarity in practice: The emergence and resolution of dissonances in collaborative research on brownfield regeneration, *Interdisciplinary Science Reviews*, 39(4): 307-322
 - The restoration of areas contaminated by industrial or mining activities has been a major issue in environmental research in many European countries since the 1980s, and it also constitutes a major area of research at the Helmholtz Centre for Environmental Research — UFZ. Within this research environment, a consortium consisting of natural and social scientists has developed an EU-funded research project aimed at providing problem-oriented, tailored approaches and technologies for the revitalization of contaminated areas. The approach taken by the project is one that seeks to integrate scientific and non-scientific knowledge. In this paper we show how the idea of joint knowledge production between scientists and non-scientists is pursued in the context of the project. We explore how the rather fuzzy presentation of the transdisciplinary approach in the project proposal opens the door to interpretation and appropriation by scientists and practitioners alike. We describe a number of ad hoc solutions that were deployed to overcome specific dissonances during the collaborative production of knowledge (e.g. substituting common group learning for the single-handed elaboration of concepts by one project partner, or substituting the consultation of external experts for the mere gathering of information). Finally, we show how the interdisciplinary research environment at UFZ enhances the ability of the project team to resolve dissonances, improves collaboration between partners, and increases the innovative potential of project outputs. © Institute of Materials, Minerals and Mining 2014
11. Alexandrescu, F., Martinát, S.^c, Klusáček, P.^c, Bartke, S.^a (2014) The Path From Passivity Toward Entrepreneurship: Public Sector Actors in Brownfield Regeneration Processes in Central and Eastern Europe, *Organization and Environment* 27(2) 181-201
 - Europeanization research dealing with the environmental transition in Eastern Europe has focused on the roles of state actors in adopting European regulations. Less well understood are the framings and roles of public administration actors when European Union regulations do not prescribe specific institutional changes. This article offers a micro perspective on the framings and roles of such actors in several cases of brownfield regeneration. Actors can play a proactive role, thereby fostering change, or they can play a moderately active or a passive role. We identify three moments-defining brownfield problems, mobilizing networks, and leading by example—which together define an entrepreneurial path. Along this path, actors can evolve from passivity toward entrepreneurship, but stasis and regression are also possible. Using qualitative data from the project TIMBRE (Tailored Improvement of Brownfield Regeneration in Europe), we illustrate different moments along this path for public sector actors in the Czech Republic, Poland, and Romania. © 2014 SAGE Publications.

12. Alker, S Joy, V Roberts, P. Smith, N.^a (2000) The definition of brownfield, *Journal of Environmental Planning and Management*, 43(1): 49-69
- This paper discusses the need for a more robust definition of the term 'brownfield' from a multidisciplinary perspective. It examines the issues involved in constructing an agreed and accepted definition and its importance with regard to UK government policy. Current usage of the term 'brownfield' and related terminology is reviewed. The paper proposes that: a brownfield site is any land or premises which has previously been used or developed and is not currently fully in use, although it may be partially occupied or utilized. It may also be vacant, derelict or contaminated. Therefore a brownfield site is not necessarily available for immediate use without intervention. Interpretation of the terminology incorporated with the definition is presented herein. The definition is subsequently evaluated with respect to the views of different stakeholder groups involved in the redevelopment of brownfield sites.
13. Altherr, W Blumer, D Oldörp, H Nagel, (2007) How do stakeholders and legislation influence the allocation of green space on brownfield redevelopment projects? Five case studies from Switzerland, Germany and the UK, *Business Strategy and the Environment* 16(7): 512–522
- Disused railway sites have become a focus of redevelopment projects in many European cities. As sites that offer economically lucrative opportunities for building projects, as well as important habitats for threatened pioneer species, they are contested ground. We compared the allocation of green space in five urban development projects on disused railway sites from Switzerland, Germany and the United Kingdom. We show that the distance to the city centre, the involvement of the stakeholders and the current legislation are important in explaining the quantity and type of green space allocated. In particular, the farther away from the city centre, the higher the proportion of apartments planned and the higher the allocation of green space within the public space. Our comparison also illustrates that 'conventional' green spaces are of major importance for the public acceptance of urban redevelopment projects and are highlighted by developers as an important image factor. We identified three strategies to protect the valuable natural sites in such railway brownfields: protection of the pioneer habitats in situ, reinstallation of similar habitats on roofs (ex situ) and safeguarding of the natural process of succession. For future brownfield redevelopment projects we would encourage guidelines that take into account the special kind of nature on such sites and guarantee planning reliability for investors. Copyright © 2007 John Wiley & Sons, Ltd and ERP Environment.
14. Anderson, M. B. (2014). "Class Monopoly Rent and the Contemporary Neoliberal City." *Geography Compass* 8(1): 13-24.
- The objective of this essay is to rejuvenate interest in Marxian rent theory in urban political economy by identifying and deepening discussion of an important aspect of the contemporary neoliberal city: class monopoly rent. First introduced by David Harvey, the concept of class monopoly rent has curiously evaded in-depth scholarly inquiry and has never been substantively elaborated or examined. But the

conditions through which class monopoly rents are extracted from property have since evolved. Yet, we know little about the relation between this standard institutional practice and contemporary urban landscapes, modes of governance, and processes of urban restructuring. The essay first reviews and identifies the concept of class monopoly rent as an important aspect of the urban process and discusses its limited scholarly engagement over the past four decades. It then discusses the implications of class monopoly rent in the context of current urban redevelopment policies and practices in Chicago, Illinois. It is suggested that a deeper examination of this concept could build a more robust and intricate understanding of the contemporary neoliberal city, particularly in the context of the post-2007 economic recession. © 2014 John Wiley & Sons Ltd.

15. Andersson, R. and S. Musterd (2005). "Area-based policies: A critical appraisal." *Tijdschrift voor Economische en Sociale Geografie* 96(4): 377-389.
 - Today, many who are involved in the governance of urban development and housing plea for area-based strategies to tackle urban social problems. Various arguments may be given to legitimise that kind of policy intervention. In this paper the assumptions behind the policy application are evaluated. Recurrent discourses and ideas regarding the backgrounds of neighbourhood effects receive extra attention. That discussion will be followed by a critical evaluation of the views that are expressed, both in the literature and through interviews with key actors. Finally, the question will be raised whether it is a good idea to continue with area-based policies or whether it might be wiser to replace the area-based policies by domain or sector policies in order to achieve a more direct approach towards the problems that should be tackled. © 2005 by the Royal Dutch Geographical Society KNAG.
16. Andres, L. (2012). "Levels of Governance and Multi-stage Policy Process of Brownfield Regeneration: A Comparison of France and Switzerland." *International Planning Studies* 17(1): 23-43.
 - This paper compares the multi-stage policy process of brownfield regeneration in France and in Switzerland, two decentralized although different countries that have not fully addressed the issue of brownfield regeneration at a national level. It makes a contribution in developing a framework to analyse the different stages of policy development, with regard to brownfield regeneration. It also fills a gap in comparative studies as French and Swiss contexts lack from coverage in the English speaking literature. It aims to understand why they have not shared and are still not sharing a similar path towards the inclusion of brownfield sites in national planning frameworks. Drawing on the examples of national policies implemented in England, in Germany and in the United States, the paper argues that whereas Switzerland is moving quickly to a national programme of brownfield regeneration highly anchored in an ambition of preserving natural spaces against urbanization, France is sustaining a persistent national

concern for social housing estates giving flexibility and leeway to local and regional authorities as regards land-use management and brownfield regeneration. © 2012 Copyright Taylor and Francis Group, LLC.

17. Antonucci, V. and G. Marella (2017). "The influence of building typology on the economic feasibility of urban developments." *International Journal of Applied Engineering Research* 12(15): 4946-4954.
 - The decade leading up to the economic crisis of 2008 was characterized by a massive expansion of the property market, in terms of both market values and investments in urban developments, promoted largely by means of a densification of urban areas. The constantly rising value of certain areas, especially in the cities, made it preferable and economically worthwhile to reconvert brownfields, increasing their buildable volumes in the process. The slump in investments nowadays is attributed entirely to a period of prolonged economic stagnation, but in fact the feasibility of high-density property developments has specificities that have yet to be thoroughly investigated, and that sometimes have nothing to do with the current frailty of the market. Densification processes are characterized by building typologies associated with construction costs that profoundly influence the economic sustainability of a given project. This article proposes to examine this relationship between building typology and construction cost, presenting the findings of a preliminary empirical investigation conducted on six cases, three in Italy and three elsewhere: the former three cases concern developments that underwent radical changes to the original plans in order to keep them economically sustainable; the latter three projects were implemented as planned, but their production costs have proved unsustainable for the purposes of providing a return on the investments. © 2017, Research India Publications.
18. Bagaeeen, S.G (2006) Redeveloping former military sites: Competitiveness, urban sustainability and public participation, *Cities* 23(5): 339–352
 - Redevelopment activities on former bases include new housing developments, industrial, training, educational and recreational facilities alongside retail and commercial quarters. This paper elaborates on the American roots and the rationale of military base redevelopment as one example of brownfield regeneration by adopting a comparative analysis using examples from the United Kingdom, Germany and Jordan to highlight experiences, lessons learnt and potential further study. In the UK, the policy to redevelop military land is driven by need to reduce government spending, income generation and promoting government targets for brownfield housing development. In the Jordanian case, the examination of available sources indicates that although development on military sites has been promoted by a political commitment to 'sustainable' urban regeneration, economic self-interest appears to triumph over environmental and community concerns in the conversion process. This has generally been developer driven. In sharp contrast to this, the case of Vauban in Germany clearly demonstrates how community

activism can play a central role in redeveloping a military site. The paper goes on to argue that the challenge in military base redevelopment, like other brownfield sites, will be to guarantee competitive advantages through revenue-generating activities that can transform these sites into reliable economic opportunities while looking after the interests of all the parties involved. © 2006 Elsevier Ltd. All rights reserved.

19. Baldi, F. (2013). "Valuing a greenfield real estate property development project: A real options approach." *Journal of European Real Estate Research* 6(2): 186-217.
 - Purpose: Real options available to developers and leading to an active and dynamic development of real estate assets are numerous. The purpose of the article is twofold. First, a conceptual framework is proposed as a practical aid for recognizing and understanding some frequently recurring combinations of options (such as deferral and expansion options). Based on the definition and classification of real options available in real estate markets, a comprehensive valuation tool for quantifying the value of those options embedded in a real estate development project is thus developed using a portfolio view. Design/methodology/approach: Based on standard option pricing techniques, the proposed conceptual methodology is validated by applying it to an actual case of an investment for the construction of a new, multi-purpose building in the semi-central zone of the urban area of Rome (Italy). Findings: Based on a static land value of 34.7 million, a waiting mode (deferral option) at an early stage of developing a property accounts for 16 percent of the expanded land value of the project, with 8 percent of such value being contributed by the expansion option. A real options valuation of the options portfolio available to a real estate developer enables increasing the project value by 31.1 percent as opposed to a traditional DCF analysis. In line with financial options theory, values of real options increase as volatility rises. Practical implications: The case-based analysis highlights that: flexibility in real estate development may create additional value enabling real estate developers or funds to react to market trends as new information arrives and uncertainty on fundamental factors (e.g. property prices) unfolds; the extra value added by managerial flexibility is neglected by DCF/NPV techniques; contrary to the common criticism on its lack of rigor, option valuation theory is suitable for appraising real estate assets; a portfolio approach is crucial when multiple real options exist. Originality/value: Active management of real estate investments in response to changing property market and technology conditions confers operating flexibility and strategic value to appraisal of development projects beyond what is traditionally captured by a DCF model. An options approach to valuing and managing real estate development may change the developer's perspective altogether. Based on the combination of an original classification and a portfolio view of options existing in real estate markets, a real options framework for assessing

the value of strategic flexibility incorporated in a greenfield development project (also accounting for potential option interactions) is designed. © Emerald Group Publishing Limited.

20. Barlindhaug, R. and B. I. Nordahl (2018). "Developers' price setting behaviour in urban residential redevelopment projects." *Journal of European Real Estate Research* 11(1): 71-86.

- Purpose: This paper aims to investigate whether developers' ask lower prices on homes in redevelopment sites than they do on similar units in smaller developments completed over a shorter time span. It also investigates whether developers price units differently at different stages of the redevelopment process. The development of designated redevelopment areas often consists of multiple projects spread across several years, some in parallel, some sequential. New units are put on the market in a piecemeal fashion, and infrastructure, shared green spaces and shared facilities are installed successively.
Design/methodology/approach: A hedonic price model is used to analyse sales prices of 7,000 new apartments in Oslo sold between 2011 and 2015, all else being equal. The paper distinguishes between infill as one-stage projects, and multi-staged competitive and multi-staged monopolistic redevelopments. Findings: Dwellings in redevelopment projects sell at a lower price than similar dwellings in infill projects. In competitive redevelopments, those in charge of the last projects put a slightly higher price on apartments. In redevelopments involving only one developer, the last stages ask the lowest prices. Research limitations/implications: This research expands our understanding of developers' pricing behaviour. Developers supplying housing for the private market through redevelopments land are willing to take risks particularly in the initial stage. Practical implications: The findings indicate that credit institutions financing developers' projects need to take into account the structure of selling prices, including lower prices and higher risk of pursuing redevelopment projects. Social implications: Gaining a better understanding of developers' pricing behaviour deepens our insights into the dynamics of market-led urban brownfield developments; this knowledge may moreover inform policies on sustainable urban growth. Originality/value: An original investigation of housing transactions in urban brownfield sites in Oslo provides fresh insights into developers' pricing behaviour. © 2018, Rolf Barlindhaug and Berit Irene Nordahl.

21. Bartke, S., et al. (2016). "Targeted selection of brownfields from portfolios for sustainable regeneration: User experiences from five cases testing the Timbre Brownfield Prioritization Tool." *Journal of Environmental Management* 184: 94-107.

- Prioritizing brownfields for redevelopment in real estate portfolios can contribute to more sustainable regeneration and land management. Owners of large real estate and brownfield portfolios are challenged to allocate their limited resources to the development of the most critical or promising sites, in terms of time and cost efficiency. Authorities

worried about the negative impacts of brownfields – in particular in the case of potential contamination – on the environment and society also need to prioritize their resources to those brownfields that most urgently deserve attention and intervention. Yet, numerous factors have to be considered for prioritizing actions, in particular when adhering to sustainability principles. Several multiple-criteria decision analysis (MCDA) approaches and tools have been suggested in order to support these actors in managing their brownfield portfolios. Based on lessons learned from the literature on success factors, sustainability assessment and MCDA approaches, researchers from a recent EU project have developed the web-based Timbre Brownfield Prioritization Tool (TBPT). It facilitates assessment and prioritization of a portfolio of sites on the basis of the probability of successful and sustainable regeneration or according to individually specified objectives. This paper introduces the challenges of brownfield portfolio management in general and reports about the application of the TBPT in five cases: practical test-uses by two large institutional land owners from Germany, a local and a regional administrative body from the Czech Republic, and an expert from a national environmental authority from Romania. Based on literature requirements for sustainability assessment tools and on the end-users' feedbacks from the practical tests, we discuss the TBPT's strengths and weaknesses in order to inform and give recommendations for future development of prioritization tools. © 2016 Elsevier Ltd

22. Bartke, S. and Schwarze, R. (2015), No perfect tools: Trade-offs of sustainability principles and user requirements in designing support tools for land-use decisions between greenfields and brownfields, *Journal of Environmental Management* 153; 11 – 24
- The EU Soil Thematic Strategy calls for the application of sustainability concepts and methods as part of an integrated policy to prevent soil degradation and to increase the re-use of brownfields. Although certain general principles have been proposed for the evaluation of sustainable development, the practical application of sustainability assessment tools (SATs) is contingent on the actual requirements of tool users, e.g. planners or investors, to pick up such instruments in actual decision making. We examine the normative sustainability principles that need to be taken into account in order to make sound land-use decisions between new development on greenfield sites and the regeneration of brownfields - and relate these principles to empirically observed user requirements and the properties of available SATs. In this way we provide an overview of approaches to sustainability assessment. Three stylized approaches, represented in each case by a typical tool selected from the literature, are presented and contrasted with (1) the norm-oriented Bellagio sustainability principles and (2) the requirements of three different stakeholder groups: decision makers, scientists/experts and representatives of the general public. The paper disentangles some of the inevitable trade-offs involved in seeking to implement sustainable

land-use planning, i.e. between norm orientation and holism, broad participation and effective communication. It concludes with the controversial assessment that there are no perfect tools and that to be meaningful the user requirements of decision makers must take precedence over those of other interest groups in the design of SATs. © 2015 Elsevier Ltd.

23. Baarveld, M. Smit, M. Dewulf, G. (2018), Implementing joint ambitions for redevelopment involving cultural heritage: a comparative case study of cooperation strategies, *International Planning Studies*, Volume 23, Issue 1, 2 January 2018, Pages 101-117
 - Urban redevelopment projects at brownfield sites are challenging, especially when heritage conservation needs to be integrated into urban development plans. In these processes, close cooperation between various actors is essential to develop and implement plans. However, many projects seem to fail or opportunities are missed. This paper sheds light on the barriers and drivers in the planning process of these projects and shows that cooperation and interaction strategies might enable actors to implement joint ambitions. Therefore, we conducted a comparative case study of 10 urban redevelopment projects involving cultural heritage buildings in the Netherlands. Our results show that there is no standard strategy. Various cooperation arrangements and interaction types are effective in dealing with complicating contextual factors and conflicts in the planning process. © 2017 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group
24. Bassett, K., et al. (2002). "Testing governance: Partnerships, planning and conflict in waterfront regeneration." *Urban Studies* 39(10): 1757-1775.
 - This paper explores issues of urban governance through a case study of a major, waterfront regeneration project in an English city (Bristol). The first part of the paper sets the development of this project within the broader theoretical context of urban regime theory and changing structures of governance in the city. The paper then outlines the attempts to build a city-wide consensus in Bristol around a viable development project in a situation marked by strongly conflicting views and contrasting visions of urban space. Political and planning processes are explored in some detail to identify the strengths and weaknesses of local governance structures. The paper concludes with some comments on the relevance of the case study for debates on urban regime theory.
25. Beames, A; Broekx, S. Schneidewind, U, Landuyt, D.; van der Meulen, M., Heijungs, R. and Seuntjens, P. (2018) Amenity proximity analysis for sustainable brownfield redevelopment planning, *Landscape and Urban Planning*, 171: 68–79
 - Idle brownfields in urban settings are potential resources that could be put to productive use, meeting the goals of urban intensification, helping to curb urban sprawl on the periphery and benefiting communities living around sites. Various decision support tools exist in order to evaluate redevelopment scenarios. Spatial decision

support systems have recently been developed to aid in evaluating the implications of the physical attributes of redevelopment scenarios, with a limited focus on the proximity of essential amenities to the local community. The application of proximity analysis in this context supports stakeholders in determining which social amenities are furthest from the local community and the extent to which including such amenities on-site would benefit the local community. A geographic information system based proximity analysis approach is presented specifically for this purpose. The distribution of walking distances for local households is compared to scenarios in which specific social amenities are included on-site. The approach is demonstrated using an abandoned brownfield case study in the Flemish region of Belgium. The local community would benefit most from having a doctor and pharmacy on-site in terms reduced walking distance. The inclusion of other amenities on-site such as employment, schools, green space, meeting places and shops also shortens walking distances for the local community but to a limited extent in comparison to a doctor and a pharmacy. 'Walking distance' is an indicator that is easily understood by stakeholders and the approach lays the foundation for more detailed analyses that would include frequency of visits. © 2017 Elsevier B.V

26. Beames, A., et al. (2015). "Accounting for land-use efficiency and temporal variations between brownfield remediation alternatives in life-cycle assessment." *Journal of Cleaner Production* 101: 109-117.
- The latest life-cycle assessment methods account for land use, due to the production, use and disposal of products and services, in terms of ecosystem damage. The process of brownfield remediation converts otherwise idle urban space into productive space. The value to ecosystems in this context is of course limited since the brownfield site remains urban. When evaluating brownfield remediation technologies, the availability of space on-site is dependent on the duration of time required by the remediation technology to reach the remediation target. Remediation technology alternatives tend to vary largely in terms of duration. Comparative life-cycle assessments of remediation technologies, to date, present the large variations between alternatives in terms of remediation duration but do not translate this into an impact or parameter. The restored subsurface zone is often defined as a functional unit, when in fact the surface area is the resource restored by the remediation service. The economic benefits of making land resources available are particularly important considerations in the context of brownfield remediation. The research proposes an innovative impact assessment approach that allows land to be considered as a finite resource. The method is applied in a comparative life-cycle assessment of two potential remediation scenarios for an idle brownfield in the Brussels region of Belgium. The results show that there is a trade-off between greenhouse gas emissions and land availability and that both are largely dependent on the efficiency of the contaminant extraction

mechanism. The results also raise the question as to whether the economic valuation of land, like precious metals and fossil fuels, provides an accurate reflection of the true value of the resource. Considering land as a resource at the midpoint level is also relevant in other urban contexts where competition exists between different land-uses, where urban sprawl is detrimental to undeveloped areas and where urban intensification is a policy objective. © 2015 Elsevier Ltd.

27. BenDor, T.K· Metcalf, S.S· Paich, M (2011), The dynamics of brownfield redevelopment , *Sustainability*, 3(6): 914 - 936·
- Negligence of former industrial sites (" brownfields") has adversely impacted urban landscapes throughout the industrialized world. Brownfield redevelopment has recently emerged as a sustainable land use strategy and impetus for urban revitalization. This study presents a system dynamics model of the redevelopment process that illustrates how delays compound before realizing financial benefits from investment in these core urban areas. We construct a dynamic hypothesis, in which brownfield redevelopment activities are dependent upon funding and in turn bolster tax base through job creation. Drawing on previous studies, barriers to brownfield redevelopment are explored, including fear of liability, regulatory concerns, and uncertain cleanup standards and funding mechanisms. We model a case study of redevelopment in the State of Michigan (USA), which is informed by data from the Department of Environmental Quality (MDEQ) and U.S. Conference of Mayors brownfield surveys. Stock-flow structures represent phases of redevelopment, with diverted streams for sites in which no contamination was found (false alarms) and those with excess contamination level. The model is used to examine the point at which cumulative tax revenues from redeveloped areas exceed cumulative expenditures on brownfield redevelopment under different levels of funding availability. © 2011 by the authors; licensee MDPI, Basel, Switzerland.
28. Berg, S.K., Stenbro, R. (2015) Densification or dilution? On cultural and economic value creation along the aker river in Oslo, Norway, *Historic Environment: Policy and Practice* 6(3): 197-213
- The regeneration of the former brownfields along the Aker River in Oslo over the last 20 years has been a realisation of heritage value as well as economic value. As a result of the intersection of these value sets, the reasons for valuation sometimes are mixed together and overlap. The heritage values emphasised seem to be based on aesthetic and economic considerations, and the heritage represented reflects what has been marketable at the various stages of development. This aesthetic and income-based valuation of heritage indicates a dynamic appreciation of heritage rather than a focus on materiality and age as qualities resisting change. Commodification of heritage qualities thus provides support for the elements prioritised, but at the same time makes them more exposed for being regarded less worthy and removed if they turn out less marketable at a later

stage — the past for sale as an opportunity, but also as a threat. © W. S. Maney & Son Ltd 2015.

29. Bertolini, L. (1998). "Station area redevelopment in five European countries: an international perspective on a complex planning challenge." *International Planning Studies* 3(2): 163-184.
- Railway stations and their surroundings are the objects of ambitious redevelopment plans throughout urban Europe. A complex of factors, as diverse as the promotion of sustainable transport and land use, the stimulation of local economies, technological and institutional change, market conjunctures and the spatial impact of globalization and of European integration, drives these initiatives. This paper shows that both differences and similarities characterize national and local approaches to station area redevelopment, through an overview of experiences in France, the Netherlands, Sweden, Switzerland and the UK. In all cases, the ambiguous nature of stations, as both nodes of networks and places in the city, sets the terms of the challenge. Uncertainty in transport and property development prospects, and the multiplicity of actors involved in the transformation, add to its complexity. It is no wonder that, although there are a few 'success stories', widespread difficulties and growing disillusion are also reported. There is certainly much to be learned from looking across borders, with one basic condition: that the characteristic dilemmas of station location redevelopment are disentangled from the workings of local and national singularities.
30. Bjelland, M. D. and I. Noyes (2017). Urban revitalization in a neoliberal key: Brownfield redevelopment in Michigan. *Urban Transformations: Geographies of Renewal and Creative Change*, Taylor and Francis: 43-61.
- Introduction Recent urban renaissance projects have seen cities reimagine their skylines, waterfronts, waterways and inner-city districts by clearing, cleaning and redeveloping former industrial sites. Former industrial lands that have undergone or are currently undergoing environmental clean-up and redevelopment include, for example: London's Olympic Park, Toronto's waterfront, Melbourne's Docklands, Sydney's Darling Harbour, Brooklyn's Flushing riverfront and Gowanus Canal, Vancouver's False Creek, Portland's Pearl District and Minneapolis's Mill District. Derelict former urban industrial sites are often prime candidates for urban revitalization projects in both developed and developing countries (Wu & Chen, 2012). However, the redevelopment of under-utilized industrial properties, referred to as brownfield sites, is complicated by environmental contamination, clean-up costs and legal liability concerns. This chapter argues, in the United States the reuse of brownfield sites has been addressed within a neoliberal framework that values market solutions, private sector initiatives, public-private partnerships and entrepreneurial urban governance. In Michigan, as in most other states, legal and financial concerns in redeveloping brownfield sites have been addressed by streamlining environmental regulations, reducing technical and legal uncertainties and supporting private

sector redevelopment initiatives with generous public subsidies. As with other government programmes, tensions exist between equity and efficiency. The environmental justice movement, which helped identify the brownfields issue in the United States, called for targeting public subsidies to distressed communities. On the other hand, the reality of fiscal retrenchment at state and federal levels and the neoliberal framework for brownfield policy prioritizes efficiency. This study explores that tension between efficiency and equity by looking at where public subsidies have been directed within a state marked by an extensive legacy of both industrial activity and highly uneven spatial development. © 2017 selection and editorial matter, Nicholas Wise and Julie Clark; individual chapters, the contributors.

31. Blanco, I. (2009). "Does a 'Barcelona Model' really exist? Periods, territories and actors in the process of urban transformation." *Local Government Studies* 35(3): 355-369.
 - The so-called 'Barcelona Model' of urban regeneration is known world-wide as a 'success story'. Amongst the most frequently mentioned features of this 'model' are: the use of major events - such as the Olympic Games - as catalysts for great urban regeneration; the adoption of a relational mode of urban governance based on the collaboration between different tiers of government, public and private bodies; the political and administrative decentralisation and the participation of the citizenship. However, the 'Barcelona Model' has also received strong criticism from certain segments of the city's academic elite and several local social movements. This article calls into question the mere existence of one 'Barcelona Model'. It highlights how the main strategies of urban public policy have changed in different periods. It illustrates that, territorially speaking, the strategies of urban regeneration have also been very varied. Eventually, it shows that the networks of urban actors involved in processes of urban change have been significantly diverse. Some learning elements for the analysis of urban regeneration are highlighted at the end of the article. © 2009 Taylor & Francis.
32. Bleicher, A. Gross, M. (2010) Sustainability assessment and the revitalization of contaminated sites: Operationalizing sustainable development for local problems, *International Journal of Sustainable Development and World Ecology* 17(1) 57-66.
 - The problem of contamination of soil and groundwater has only been discussed widely in industrialized countries since the 1970s. Since the 1980s, when the debate on sustainable development began to be taken up in urban and regional planning, soil was increasingly seen as a scarce and non-renewable resource. Consequently, the goal of brownfield redevelopment became an urgent issue in policy circles. Because revitalization of contaminated brownfield areas is characterized by many uncertainties and complex decision-making processes, there is a growing need for generic decision-support systems. In this paper we discuss the development of a systematic approach aimed at assessing different land-use scenarios for a contaminated site in terms of their sustainability value as part of a

computer-based module. The overall management system, of which sustainability indicator development discussed in this paper is but one part, supports users in developing a case-specific set of criteria for sustainable development. In this paper, we present and critically discuss this new sustainability assessment module. We describe the different steps of the indicator development process and discuss areas that need to be improved in order to derive answers that reach beyond the field of contaminated site management. © 2010 Taylor & Francis.

33. Blokhuis, E.G.J. Snijders, C.C.P. Han, Q. Schaefer, W.F. (2012), Conflicts and cooperation in brownfield redevelopment projects: Application of conjoint analysis and game theory to model strategic decision making, *Journal of Urban Planning and Development* 138(3): 195–205
- Redevelopment of brownfields is placed high on the political agendas in many countries. However, brownfield redevelopment projects are often problematic, and the frequent occurrence of conflicts between involved and interdependent stakeholders is directly related. To date, there is no insight in the underlying interaction structure of brownfield redevelopment projects and tools are lacking to support the complex decision making between stakeholders. The aim of this article is to theoretically analyze the underlying interaction structures in brownfield redevelopment projects, modeling the process as an interdependent situation and applying game theoretical arguments. The explicit interaction between involved stakeholders is modeled as an interdependent process, using an approach in which conjoint analysis and game theory are combined. Our results show that there is one major source of conflicts-stakeholders choosing not to cooperate based on the presented game-setting. Other possible sources of conflict, such as difficulties in reaching a stable outcome or incomprehensibility of the game-setting, proved to have a limited contribution to the occurrence of conflicts. A more in-depth analysis of game-settings ending up in mutual cooperation showed that the appraisal of both stakeholders for the proposed development plan is the most influential factor, together with an eventual absolute difference between both players' appraisals. Furthermore, stakeholders having a relatively weak power position within projects tend to prefer a noncooperative attitude and having some change can be beneficial for achieving mutual cooperation. If stakeholders have the prospect of achieving extra value through mutual plan optimization, they tend to be more willing to act cooperatively. © 2012 American Society of Civil Engineers.
34. Blokhuis, E. G. J., et al. (2008). "Choosing a competence based governance role in brownfield redevelopment processes." 107: 243-253.
- The redevelopment of brownfields in the Netherlands stagnates. The fact that the central directing role of municipalities is abandoned is often considered as a cause of the stagnation occurring within these processes. Currently, municipalities can only manage brownfield developments in strategic alliances with different public and private

actors. The precise role of municipalities as governor within these alliances is still very indistinct. This paper describes a software model that enables municipalities to determine a suitable governance role in brownfield redevelopment processes. This is realised by distinguishing four types of governance roles and four factors determining the necessity of involving actors in the process. Depending on the presence of these factors in a brownfield redevelopment project, the suitability of the several governance roles can be specified. The method also offers municipalities the possibility of developing their capabilities and related levels of competences based on the predefined governance role they want to practice. © 2008 WIT Press.

35. Boddy, M. (1981). "The property sector in late capitalism: the case of Britain (investment)." *Urbanization and urban planning in capitalist society*: 267-286.
- Focuses on the emergence of the autonomous 'property sector', and on the changing scale and nature of investment of financial institutions in commercial and industrial property. An analytical framework based on the interlocking circuits of industrial, commercial, and interest-bearing capital is developed. This is applied empirically to an examination of the particular (and historically determined) articulation of agents involved in the production and finance of property. The growing involvement of financial institutions and the increasingly direct nature of this involvement are clarified. It is shown due to various structural changes, the financial system is increasingly exposed to booms and slumps. In addition, the form and feasibility of urban and innercity redevelopment, regional policy, and industrial strategy will be determined by the investment criteria of financial institutions. Finally, it is suggested that strong contradictions remain between public planning and private land ownership, and that the widening ownership of land and property by financial institutions has strengthened and altered the structure of opposition to efforts intended to resolve these contradictions and to nationalize land. –Editors
36. Bogen, A. (2006) *Brownfields - Public involvement*, WIT Transactions on Ecology and the Environment 94: 175-184
- It is the public's money that provides critical leverage in Brownfields revitalization. Without grants for environmental assessments or cleanup funding or tax incentives, many Brownfields sites would remain unkempt. Municipal staffs are public employees whose actions in the Brownfields process must be transparent. Regulators too must share findings and answer an enormous range of technically challenging health and ecological questions. The press seems to find stories of environmental resolution worthy copy. Their questions could be difficult to manage when the property owner may be wrestling with the responsibilities and liabilities of potential site contamination. Sometimes, in neighbourhood meetings of directly effected parties, the whole process is characterized as being self serving for developers, bureaucratic, costly and time consuming and indifferent to the real concerns of the public. The charge for all parties involved in

Brownfields redevelopment is to foster the public good by resolving ecological and human health risks and fostering economic development to increase taxes and employment. A trusted and effective process can assist Brownfields resolution. Time delays from litigation can be minimized. Infrastructure improvements are more likely to receive favourable bonding votes. Sophisticated and able developers are more likely to stay committed. This paper will be about developing just such a favourable process.

37. Boehme, R. and G. Warsewa (2017). "Urban Improvement Districts as new form of local governance." *Urban Research and Practice* 10(3): 247-266.
 - A growing number of German towns established Urban Improvement Districts (UIDs) as instrument of redevelopment of urban neighbourhoods. Real-estate owners and further actors participate politically and contribute financially to the process of revaluation, but this brings about problems of local democracy, legitimation, participation and accountability. The article examines the implementation of UIDs in three German cities and compares experiences made with this new instrument of participative urban development. It focuses on the implications for local democracy and explores whether UIDs could be useful instruments of city governance and appropriate arrangements to unlock additional resources at local level. © 2016 Informa UK Limited, trading as Taylor & Francis Group.
38. Boyle, L., et al. (2018). "A critique of the application of Neighborhood Sustainability Assessment Tools in urban regeneration." *Sustainability* 10(4).
 - Neighbourhood Sustainability Assessment Tools (NSA tools) are fast becoming the principal framework for urban planners and developers for promoting urban sustainability. The majority of NSA tools promote a specific type of urban development that effectively excludes regeneration projects from the urban sustainability conversation. Given that the world's megacities are mostly built, it is argued that it is essential that strategies for global sustainability consider that urban development is focussed internally to address existing, under-served communities in particular need of meaningful intervention and sustainable redevelopment frameworks. The paper uses existing knowledge on NSA tools to highlight the shortcomings of outcomes-based approaches to urban governance and builds the case that the technocratic "one-size-fits-all" approach adopted by many tools inadequately accounts for underlying institutional, social and economic arrangements that influence urban development, making them inappropriate for application in both planned and existing communities. The paper proposes that urban redevelopment strategies need to be derived from the urban realities of a particular place or context. Such strategies must be grounded in principles of urban governance, participatory action and an understanding of market dynamics. Without these collaborative procedural frameworks, urban regeneration projects will continue to inadequately transition towards more comprehensive sustainability. © 2018 by the authors.

39. Brooks, C.N. (2006) A model for redeveloping complex, highly contaminated sites - The Industri-plex Site in Woburn, Massachusetts, *WIT Transactions on Ecology and the Environment*, 94: 229-238
- This paper will describe how one of the most contaminated waste sites in the United States was transformed into a productive commercial center to become an international model for brownfields reclamation. The Industri-plex Federal Superfund Site in Woburn, Massachusetts, is the fifth most contaminated waste site in the country, according to the US Environmental Protection Agency (USEPA). More than a century of heavy industry left a legacy of contamination, including metals in the soil, sediment and groundwater, and piles of odor-producing animal hides. Woburn is the home of two federal superfund sites - Industri-plex and the notorious Wells G&H Site, where contamination in two drinking water wells was blamed for a cancer cluster. After a highly publicized lawsuit and release of Jonathan Harr's best selling book, *A Civil Action*, local property values plummeted, community trust was shattered and Woburn became nationally stigmatized. Today, however, this former industrial wasteland has been reborn and is now home to US Fortune 100 giants Raytheon Corporation, Marriott Hotels and Target, which occupy a 900,000 square foot high-end office park and hotel campus and a 200,000 square foot retail center. A state-of-the-art regional transportation center provides train, bus and carpool services to thousands of regional commuters. More than the 4,000 new jobs and millions in new taxes that have been created, Industri-plex is a source of new-found hope and pride. This paper details the strategies that led to redevelopment success, including the unprecedented use of an independent, third-party redevelopment advocate and trustee, the "Industri-plex Custodial Trust," to catalyze and implement reuse. Winner of the prestigious National Phoenix Award for excellence in brownfield redevelopment, Industri-plex offers an innovative model with broad application to many sites, especially those gridlocked by complex contamination, property issues and divergent stakeholder interests.
40. Burinskiene, M., Lazauskaite, D., Bielinskas, V. (2015) Preventive indicators for creating brownfields, *Sustainability* 7(6): 6706–6720
- Although the problem of brownfields in urban territories is successfully limited, it is a negative phenomenon of a sustainable city. Moreover, the number of recently created brownfield territories has become higher than that of the regenerated ones. Such territories reduce the quality of the social and economic setting of a city as well as visually and physically affect the life quality of city residents. Unfortunately, methods for the revitalization of brownfield land have been applied to deal with the consequences of the problem rather than to limit the problem itself. The authors of the article have investigated the aspects to be avoided to not create brownfields. The indicators that enable predicting the probability of a territory becoming a brownfield have been analyzed in this paper. Countries develop and exist under different social and economic conditions. Therefore, there is no

uniform and universally accepted system of indicators for brownfield prevention that can be applied in any country or city. The authors have attempted to implement a recently developed idea of indicators for prevention under Lithuanian conditions and have selected those facilitating the identification of brownfields with an aim of identifying the most significant ones warning about the potential harm from the creation of brownfields in Lithuania. The selected indicators have been grouped, taking into account social, economic, natural, building and infrastructure settings of the city and ranked by a group of experts in urban planning. The established hierarchy of indicators in the groups of urban setting has allowed the authors to select the most significant preventive indicators for brownfields. The created system of indicators could be applied in practice as a basis for monitoring pertinent data and tracking their change. © 2015 by the authors; licensee MDPI, Basel, Switzerland.

41. Buxton, M. and E. Taylor (2011). "Urban land supply, governance and the pricing of land." *Urban Policy and Research* 29(1): 5-22.
 - This article examines the relationships between regulatory urban policy and land prices concentrating on the claimed impacts of urban growth boundaries (UGBs) using Melbourne, Australia, as a case study. Claims about these relationships have influenced the development of urban strategic policy internationally. The article finds no clear evidence that the introduction of a legislated UGB in Melbourne in 2003 has led to price increases of urban or rural land on the metropolitan fringe and evaluates factors which complicate claims about UGB policy influences on land price. © 2011 Editorial Board.
42. Casellas, A. (2016). "Urban development, power coalitions and citizens participation in Barcelona: A narrative from a critical geography approach." *Boletín de la Asociación de Geógrafos Españoles* 70: 57-75 and 457-462.
 - From a critical geography approach, the article addresses the debate on the characteristics of governance and urban and economic development strategies in Barcelona. It analyzes the gradual reorientation of local policies, from a management and social redistribution approach that began in the eighties, to a policy dominated by image promotion and capital gains from land development. It identifies the turning point in this process, the characteristics of the agents involved and their decision-making dynamics, addressing the changes in marketing and planning narrative since 2010, from the urban to the metropolitan scale. The article concludes with a statement on the need for more inclusive local governance.
43. Casellas, A. (2006). "The limits of the «Barcelona model». A reading from Urban Regime Analysis." *Documents d'Anàlisi Geogràfica*(48): 61-81.
 - This article analyzes Barcelona's urban evolution applying Urban Regime Analysis as analytical tool. The paper presents the main features of the city's governance, and its evolution since the beginning of the 1980s to 2006. It analyzes the dynamics urban transformation of the city focusing on the consolidation of a public-private partnership initiated in the context of the Olympic Games of 1992. It studies the

type and features of this partnership. The paper concludes that the partnership has shaped the urban planning redevelopment policies of the city, creating an urban regime that gives priority to economic growth over other social and physical considerations. The paper takes a critical approach to the « Barcelona model ».

44. Cavenago, D. and B. Trivellato (2010). "Organising strategic spatial planning: Experiences from Italian cities." *Space and Polity* 14(2): 167-188.
 - Strategic urban and regional planning, which emerged in Europe in the 1980s, has become an instrument to establish sustainable development of previously successful industrial areas today affected by the crisis caused mostly by the globalisation of the 1990s. Strategic urban planning concerns organisational land use which in turn regulates resource protection, sustainable development, regeneration and infrastructural investments and multilevel governance. Careful planning is imperative to reach goals such as enhancing local competitiveness and life quality. These dimensions represent the two focal points of the majority of city planning strategies. Their implementation depends not only on planning effectiveness, but also on the organisation and the management of the implementation process by the planning agency or the equivalent local promoter. This paper looks at the experience of Italian cities, in order to derive implications for theory and for future planning processes. More specifically, it analyses the extent to which Italian cities follow similar or divergent paths at the stage of the design process; the Italian case study is then compared with the guidelines proposed by the planning literature and with other European cities. © 2010 Taylor & Francis.
45. Chrysochoou, M. Brown, K. Dahal, G. Granda-Carvajal, C. Segerson, K., Garrick, N. and Bagtzoglou, A., (2012), A GIS and indexing scheme to screen brownfields for area-wide redevelopment planning, *Landscape and Urban Planning* 105(3): 187–198
 - In this study, we present an indexing scheme to screen large numbers of brownfield sites in wide areas (municipalities, counties, states or other types of districts) in order to develop initial planning strategies for fund allocation and redevelopment. The scheme entails three dimensions, socioeconomic, smart growth and environmental, for each of which an index is constructed on the basis of location-specific variables irrespective of the target end use. Socioeconomic variables include population density, property values and unemployment which collectively represent the potential contribution of brownfield redevelopment to economic growth. The smart growth or livability index was developed on the basis of the LEED ND evaluation scheme of the U.S. Green Building Council, isolating location-specific features. Finally, the environmental index incorporates variables that represent the potential source of contamination (past use), pathway of exposure (soil permeability) and receptors (zoning, proximity to water bodies, parks, critical habitats, open spaces, wetlands and floodplains). The application of the indices to the City of New Haven, Connecticut as a case study yielded four priority sites out of 47 in the city inventory.

Even though the indices were sensitive to the chosen weights, prioritization of sites in clusters reduced the effect; the top four sites were identical in the case study and 31 out of 47 sites were present in the same cluster regardless of the weighting scheme. © 2012 Elsevier B.V.

46. Church, A. (1990). "Waterfront regeneration and transport problems in London Docklands." *Port cities in context*: 5-37.
 - Outlines the role of transport in the regeneration strategies implemented in London Docklands in the 1970s and 1980s. Since 1981 the market-led policies of the London docklands Development Corporation, combined with broader economic processes, have led to a property development boom in the area. The lack of a transport strategy has led to inadequate provision holding up the regeneration process, extra costs from poor integration and coordination between transport modes, and the neglect of social needs in favour of the wishes of developers. –Author
47. Coffin, S.L., Shepherd, A. (1998) *Barriers to Brownfield Redevelopment: Lessons Learned from Two Great Lakes States*, *Public Works Management & Policy*, 2(3): 258-266
 - This article examines the barriers to brownfield redevelopment through a case study analysis of four cities in two Great Lakes states. Four key barriers are identified and investigated: legal liability, limited information, limited financial resources, and limited demand for the properties. Perceived liability emerges as a dominant barrier, and one that compounds the other three barriers. The article analyzes how and why liability perceptions affect stakeholder behavior and provides lessons learned for promoting brownfield redevelopment. © 1998, SAGE Publications. All rights reserved.
48. Collins, F.P. (2003) *The small business liability relief and brownfields revitalization act: A critique*, *Duke Environmental Law and Policy Forum* 13(2): 303-328
 - In a sweeping attempt to facilitate the cleanup of hazardous substances released into the environment and the cleanup of inactive waste disposal sites, Congress in 1980 passed the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA").¹ CERCLA's authority extends both to Superfund sites, the most hazardous sites in the country, and to brownfield sites. Brownfield sites are defined by the EPA as "abandoned or underutilized industrial or commercial properties where redevelopment is hindered by possible environmental contamination and potential liability under Superfund for parties that purchase or operate these sites."² CERCLA grants the Environmental Protection Agency ("EPA") the authority to regulate cleanup of Superfund and brownfield sites. This article will detail the approach taken toward brownfield redevelopment by CERCLA, the EPA, and the states. This article will first examine the effect these changes have had upon brownfield redevelopment and discuss the various inadequacies that have become apparent in the brownfield approach over the years. The

article will next turn to the changes the new Act has implemented and the intended effect of the changes. Finally, this article will compare and contrast the desired effects with the expected actual effects that the new Act will have upon brownfields.

49. Cortinovis, C., et al. (2019). "Is urban spatial development on the right track? Comparing strategies and trends in the European Union." *Landscape and Urban Planning* 181: 22-37.
 - Urban spatial development is a crucial issue for spatial planning and urban governance, ultimately determining cities' sustainability. While a set of spatial strategies to address urban development are progressively gaining international consensus, their actual applicability is still contested. An interesting test-bed is represented by the European Union (EU), where common spatial strategies have been discussed since 1993. This paper aims to identify the main spatial strategies promoted at the EU-level and to investigate whether the recent spatial development trends of EU cities have been following the directions suggested by the strategies. By analysing 30 policy documents, we identified six main strategies: compact city, urban regeneration, functional mix, no land take, green city, and high density. For each strategy, we selected a set of indicators and applied them to the analysis of 175 cities representative of the variety of conditions across the EU. Most cities progressed towards compact city and functional mix, but almost none halted land take. Urban regeneration was more intense in Northern and Western cities, while Southern cities show the most significant increase in green spaces. Growing cities achieved a higher density, but expanded inefficiently producing abandonment of urbanized areas and fragmentation of agricultural land. Shrinking cities continued in the paradox of contemporary population loss and expansion already observed by previous studies. The results highlight potential conflicts and trade-offs in the implementation of the strategies. Similar analyses can stimulate comparison, exchange, and cooperation among cities, thus supporting the mainstreaming of non-prescriptive strategies formulated at the international level. © 2018 Elsevier B.V.
50. Clua, A. and A. Albet (2008). *22@bcn plan: Bringing barcelona forward in the information era. Knowledge-Based Urban Development: Planning and Applications in the Information Era*, IGI Global: 132-147.
 - Barcelona has been internationally recognized for its exemplary urban regeneration policy since the Olympic Games of 1992. By that time, the so-called Barcelona model was not only about urban planning and new economic strategies, but about urban culture and social participation as well. After a period of stagnation, the new orientation of the municipal policy points to a more entrepreneurial logic. The growing role of private initiatives and the inclusion of information and communication technology in local policies are questions that affect the definition and shape of the new city, as well as the theory and practice of its governance. The "22@bcn Plan" is one of the highlights of Barcelona's change into a city of knowledge. This chapter asks

whether and how this specific plan challenges the well-known Barcelona model. © 2008, IGI Global.

51. Croft, T. (2012). Targeted responsible investing. *The Next Generation of Responsible Investing*, Springer Netherlands: 199-218.
- Up from Wall Street: The Responsible Investment Alternative (Croft, 2009) and a companion report made the case that there are strategic and responsible investment paths that have the capacity to rebuild our economy and infrastructure, reinvigorate our cities, and create green jobs of the future. These two works documented the fact that the assets in retirement accounts and mutual funds, insurance companies, university, hospital and foundation endowments, college savings funds, and others trusts-in effect, our money-can begin to help turn our economies around. Responsible investment of workers' savings and assets can be invested in the private economy to generate specific social, environmental, and governance (ESG) benefits, along with the necessary financial returns. The chapter concludes by looking to the future and to the "third wave" of responsible investment, which combines responsible real estate, private equity and project finance (and other ETI strategies) to connect practical and prudent investments in enterprises and housing with co-investments in human capital, renewable energy and efficient transportation. Capital stewards can re-create and renew parts of urban cities, redevelop poor rural areas, and invest in sustainable developments, and demand, with their investments, aggressive actions toward climate solutions. Many of these ideas could embody the next generation of targeted investing. Disclaimer The purpose of this report is not to provide advice on investing in any particular investment product. The report may not be construed as being the primary basis for an investment decision or as reflecting recommendations for individuals or institutions. The author disclaims any liability for actions you may take as a result of reading this report. Please talk to your lawyers, consultants and fund managers, etc., before making any investment decision. © Springer Science+Business Media B.V. 2012.
52. Cummings, S., et al. (1988). "Public-private partnerships and public enterprise." *Urban Resources* 5(1): 35-36,47-48.
- This article presents a critical overview of public-private partnerships as a strategy of contemporary urban development. They do little to resolve many of the criticisms directed towards traditional development policies and they raise important normative questions concerning accountability and governance. This critical analysis concludes with a series of policy recommendations designed to reduce the major political and financial weaknesses of the partnership approach. –Author
53. Daamen, AT. and E. Louw (2016). "The Challenge of the Dutch Port-City Interface." *Tijdschrift voor Economische en Sociale Geografie* 107(5): 642-651.

- This paper explores the shifting geography of the port-city interface in The Netherlands since the mid 1970s, and assesses its current scene. With an eye on port-urban governance and planning, we provide a dynamic account of the forces that have played a major role in the implementation of waterfront redevelopment schemes in Amsterdam and Rotterdam. Our account shows that the power balance between the port authority, the municipal planning office, and the users of the port has shifted. This has compelled urban planners in both port cities to adopt a more incremental waterfront development strategy than they had anticipated, and has given port users more influence on the plans for the current port-city interface. © 2016 Royal Dutch Geographical Society KNAG
54. Dair, C.M. Williams, K. (2006) Sustainable land reuse: The influence of different stakeholders in achieving sustainable brownfield developments in England, *Environment and Planning* 38(7): 1345–1366
- The UK government has made the sustainable reuse of land a strong policy aim in its sustainable development and planning strategies. However, in this paper we present research into recent urban brownfield redevelopments in England that shows that many aspects of sustainability are currently not being considered in practice. To explain this, we focus on the role of different stake-holders involved in brownfield development and critically examine their actions and decisions. We establish which stakeholder types (for example, architects, planners, councillors, developers, investors) are more likely to attempt to introduce sustainability into development projects and which are more successful in meeting their agendas. We conclude by identifying five reasons for variation in the achievement of sustainability in brownfield development.
55. Dagenhart, R., Leigh, N.G., Skach, J. (2006) Brownfields and urban design: Learning from Atlantic Station, Volume 94, 2006, Pages 185-194
- Only a decade ago, large brownfield sites were valued only for parks and open space in Europe and for replacement industry or jobs in the U.S. Today, these sites are becoming valued real estate development opportunities for high density, commercial and housing mixed use projects, reflecting the changing form of the contemporary city. If these central city developments are to gain approvals from a myriad of local, regional and national stakeholders, they must be designed to become part of the surrounding city and neighbourhoods instead of continuing their former roles as stand-alone sites. Landscape designs for recent brownfield parks offer some clear directions for understanding urban design for brownfield redevelopment. We relate this landscape experience, such as from Westergasfabriek Culture Park in Amsterdam, to the master planning of Atlantic Station, a high-profile mixed use brownfield project in Atlanta, Georgia. We conclude with three urban design lessons for future brownfield work: subdivide first, design streets as public space, and replace buffers with boundaries to bind the parts of project together to create communities.

56. Darchen, S. (2013). "The Regeneration Process of Entertainment Zones and the Business Improvement Area Model: A Comparison Between Toronto and Vancouver." *Planning Practice and Research* 28(4): 420-439.
- This paper examines the regeneration process of two entertainment zones in Canada, both of which involve business improvement areas (BIAs) within the local governing structure. The main objective is to analyse the arrangement of local governance and the corresponding influence on the regeneration strategy in each context. Resultantly, it is clear that local governance structure holds significant impact on project outcome, which in both cases has led to similar regeneration strategies with regard to place-making and economic revitalization. As a recommendation moving forward, the BIA model might be twinned with a sustainability assessment of the site in order to produce a more strategic approach to urban regeneration. © 2013 Copyright Taylor and Francis Group, LLC.
57. Davison, G. Legacy, C. (2014) Positive Planning and Sustainable Brownfield Regeneration: The Role and Potential of Government Land Development Agencies, *International Planning Studies* 19,(2): 154-172
- State governments in Australia increasingly outsource the co-ordination and delivery of 'difficult' regeneration projects to state-owned land development agencies (LDAs). These LDAs were originally established in the 1970s with a strong redistributionist agenda, operating mainly to deliver low-cost residential land on greenfield sites. In the last 25 years, however, their roles have been redirected towards brownfield regeneration and they have been required to operate profitably. This paper uses the recent rise and fall of a powerful Queensland LDA to examine the potential of 'positive planning' in political contexts where governments wish to both limit their involvement in planning and achieve sustainable brownfield regeneration. © 2014 Taylor & Francis
58. De Flander, K. and J. Brugmann (2017). "Pressure-point strategy: Leverages for urban systemic transformation." *Sustainability (Switzerland)* 9(1).
- Sustainability can be understood as a specific kind of problem framing that emphasizes the interconnectedness of different problems and scales and calls for new forms of problem handling that are much more process-oriented, reflexive and iterative in nature. Closely related with the notion of reflexive governance, we propose such an alternative strategy for societal problem handling and change management in the urban context. The strategy starts from stress states in the urban system(s) and uses their initial momentum to encourage systemic change through intraventions-rather than interventions-at selected pressure points. This paper highlights the potential to evolve what has often been an intuitive practice, led by community or elected leaders with unique wisdom about functions and pressure points in their urban system, into a more accessible strategy for shaping socio-ecological transformation in urban practice. © 2017 by the authors.

59. Degen, M. and M. García (2012). "The Transformation of the 'Barcelona Model': An Analysis of Culture, Urban Regeneration and Governance." *International Journal of Urban and Regional Research* 36(5): 1022-1038.
- Barcelona's redevelopment has been widely celebrated for its apparently successful combination of cultural strategies with urban regeneration to address social problems. The 'Barcelona model' has evolved, however, with changing relationships between urban regeneration, the use of culture and modes of governance. The role of cultural strategy has shifted from being part of a cultural vernacular with social and political citizenship at its core to become a functional tool for ensuring social cohesion and marketing the city's brand. This is linked to a gradual dilution of bottom-up participatory democracy in governance. Pressures for international competitiveness are challenging the sustainability of the 'Barcelona model', while local actors are trying to ensure social justice at home. © 2012 Urban Research Publications Limited.
60. De Sousa, CA, and Spiess TB, (2018), The management of brownfields in Ontario: A comprehensive review of remediation and reuse characteristics, trends, and outcomes, 2004–2015, *Environmental Practice* Volume 20, Issue 1, 26 March 2018, Pages 4-15
- Brownfields remediation and redevelopment continues to be an important issue for policy makers and planners seeking to unlock its many socio-economic and environmental benefits. While technical approaches to assessment and remediation have become rather standardized and governments have largely embraced voluntary programs to oversee their application, the degree of regulatory oversight continues to differ among jurisdictions. This article examines the scale and character of remediation activity in Ontario, Canada over the last decade using records submitted by qualified persons from the private sector. It finds that Ontario's approach has been quite successful in scale and character in stronger urban real estate markets despite most matters related to cleanup and reuse escaping the direct oversight of provincial regulators. The province's less-interventionist approach may need some review to address the nature of cleanup techniques being applied and the recent slowdown in cleanup and reuse activity, especially given the growing push toward regional growth management and more effective use of brownfield land resources in both larger urban areas, and smaller ones where greenfields are plentiful and brownfields are less competitive. © 2018, © 2018 Christopher A. De Sousa, Thierry B. Spiess. Published with license by Taylor & Francis.
61. De Sousa, C. (2017), Trying to smart-in-up and cleanup our act by linking regional growth planning, brownfields remediation, and Urban infill in Southern Ontario cities, *Urban Planning* 2(3): 5 – 17.
- The reuse of brownfields as locations for urban intensification has become a core strategy in government sustainability efforts aimed at remediating pollution, curbing sprawl and prioritizing renewal, regeneration, and retrofitting. In Ontario, Canada's most populous,

industrialized, and brownfield-laden province, a suite of progressive policies and programs have been introduced to not only facilitate the assessment and remediation of the brownfields supply, but to also steer development demand away from peripheral greenfields and towards urban brownfields in a manner that considers a wider regional perspective. This article examines the character and extent of brownfields infill development that has taken place in three Ontario cities (Toronto, Waterloo, and Kingston) since the provincial policy shift in the early 2000s. Using property assessment data and cleanup records, the research finds that redevelopment activity has been extensive in both scale and character, particularly in Toronto where the real estate market has been strong. While the results are promising in terms of government efforts to promote smarter growth that builds “in and up” instead of out, they also reveal that government could be doing more to facilitate redevelopment and influence its sustainability character, particularly in weaker markets. © 2017 by the author.

62. De Sousa, C.A.Wu, C Westphal, L.M (2009) Assessing the effect of publicly assisted brownfield redevelopment on surrounding property values, *Economic Development Quarterly* 23(2): 95–110
- This study measures and compares the impact of publicly assisted brownfield redevelopment on nearby residential property values in Milwaukee and Minneapolis. It also examines the influence of land use, neighborhood characteristics, and other redevelopment factors on this impact. The research approach incorporates a hedonic method to quantify nearby property value effects at more than 100 brownfield projects, and stakeholder interviews are used to assess perceived impacts to real estate conditions. The results reveal that the spillover effect in terms of raising surrounding property values is significant in both quantity and geographic scope, as redevelopment led to a net increase of 11.4% in nearby housing prices in Milwaukee and 2.7% in Minneapolis. It also reveals that project size, value, and the amount of public funding have minor impacts on this effect; factors such as proximity to major roads, distance from rail, and higher incomes have greater positive impacts. © 2009 SAGE Publications.
63. De Sousa, C.A. (2006) Unearthing the benefits of brownfield to green space projects: An examination of project use and quality of life impacts, *Local Environment* 11(5): 577–600
- The redevelopment of brownfields and the creation of green space in cities are two initiatives that are gaining support in the US, for they are perceived to be important elements for fostering urban revitalization and more sustainable development. Although these initiatives have evolved separately, the two have started to converge as governments, local communities and other stakeholders begin to consider brownfields as potential locations for green space. A barrier to this convergence, however, has been the focus of brownfield efforts on redevelopment that garners direct economic benefits, as well as the lack of information regarding the benefits that brownfield to green

space projects can bring about. This paper examines the utilization and quality of life impacts of three brownfield to green space projects from the perspective of those using them and the affected communities. The perceptions of respondents (combined N = 479) were assessed via three separate surveys, sharing common questions, which obtained written responses at the point of distribution or elicited mailed responses. The results indicate that these projects quickly achieve regular use and that users partake in a vast array of active and passive recreational activities. The projects also contribute in many ways to personal and community quality of life, particularly in terms of enhancing scenic beauty and neighbourhood appeal, improving access to trails, recreation space, and nature, boosting community pride, removing blight, improving physical fitness and raising property values. In all, 90% of those surveyed felt that green space was a good use for brownfields.

64. De Sousa, C. (2005) Policy performance and brownfield redevelopment in Milwaukee, Wisconsin, *professional Geographer* 57: 312–327
- The redevelopment of brownfield sites has become a central focus of government efforts aimed at developing and revitalizing urban areas in the U.S. This article examines brownfield redevelopment efforts in Milwaukee County, Wisconsin, which gained momentum in the mid-1990s, in order to determine how Milwaukee is performing in terms of redevelopment activities, what the effects of government support of such activities have been, and how performance outcomes are currently being measured. Through an examination of government data and interviews with key stakeholders, the Milwaukee case reveals that redevelopment is indeed progressing well as government becomes more effective at tackling the barriers to private-sector redevelopment. However, progress in redeveloping brownfields is still being measured primarily in terms of economic development outcomes rather than in terms of the broader social, economic, and environmental objectives that both policy makers and private-sector stakeholders associate with such redevelopment. © Copyright 2005 by Association of American Geographers.
65. De Sousa, C.A (2004) The greening of brownfields in American cities, *Journal of Environmental Planning and Management* 47(4): 579-600
- The redevelopment of brownfields has become a central component of government efforts to revitalize many US cities. While the focus of these efforts has concentrated on promoting industrial and commercial redevelopment, some cities have started to also consider converting brownfields into parks and open space as part of a more comprehensive renewal strategy. Based on a survey of 20 case studies, this paper identifies and discusses: (1) the primary issues involved in brownfield greening projects; (2) the benefits of such projects; and (3) the specific planning processes involved. The overall conclusion drawn from the survey is that numerous renewal-oriented benefits can ensue from greening projects, if there is extensive stakeholder commitment devoted to deal with its financial and

development-oriented challenges. © 2004 University of Newcastle upon Tyne.

66. De Sousa, C.A. (2003) Turning brownfields into green space in the City of Toronto, *Landscape and Urban Planning*, 62(4): 181-198
- Since the mid-1980s, policy makers and planners in North America and Europe have been paying significantly more attention to measures designed to foster sustainable development and improve the quality of life in urban areas. One issue that has received widespread political support has been the cleanup and redevelopment of under-utilized brownfield sites in urban areas. In Canada and the US, the focus of policy-making and redevelopment efforts has been on redeveloping brownfield sites for industrial, commercial, or residential uses that provide economic benefits through tax revenues and/or jobs. However, there has been a growing recognition among community groups and environmental organizations that brownfields hold enormous potential for "greening" city environments, through the implementation of parks, playgrounds, trails, greenways, and other open spaces. The objectives of the current research are to examine the issues, obstacles and processes involved in remediating potentially contaminated urban brownfield sites and converting them into green spaces, to identify the benefits that these green spaces can bring to the community and culture, and to understand the specific planning processes that it involves. Data for this study were collected through a review of 10 pertinent "greening" case studies and personal interviews with relevant stakeholders. Toronto's brownfield-to-green space redevelopment experience has implications for cities across North America undergoing brownfield planning and seeking to enhance urban quality of life. © 2002 Elsevier Science B.V. All rights reserved.
67. De Sousa, C.A. (2002): Brownfield redevelopment in Toronto: An examination of past trends and future prospects, *Land Use Policy* 19(4): 297–309
- Although the development of greenfield sites in suburban peripheries is still the predominant trend in Canada, in the decade of the 1990s a growing inclination to redevelop under-utilized urban brownfield sites emerged. This study describes brownfield redevelopment patterns in the former "City of Toronto" during the 1990s and examines the key factors shaping them. The relevant data for the study were compiled from a City of Toronto land-use database, the appurtenant policy and planning studies, interviews with stakeholders, and case studies. Toronto's redevelopment experience has obvious implications for cities of similar socio-cultural and socio-economic character undergoing redevelopment planning and can thus be viewed as a "case-in-point" in brownfield redevelopment planning and policy. © 2002 Elsevier Science Ltd. All rights reserved.
68. Dijst, M., et al. (2018). *Governing cities on the move: Functional and management perspectives on transformations of European urban infrastructures*, Taylor and Francis.

- This title was first published in 2002: The success of any investment strategy in urban infrastructures is dependent on how people as members of households, companies or institutions will use these infrastructures in their daily lives and how actors take decisions on their investment strategies. Insights into these behaviours can help public and private actors to cope with diversity, complexity and uncertainty in a dynamic urban environment. This book elaborates, both theoretically and empirically, the functional and governance/management perspective of urban infrastructures. It comprises theoretical contributions related to accessibility, land-use modelling and urban governance, while case studies from Antwerp, Geneva, Milan, Oslo, Turin and Zurich effectively analyze the problems associated with mobility, infrastructure, finance, planning, transformation and governance. It will be of considerable value to anyone with an interest in urban performance. © Martin Dijst, Walter Schenkel and Isabelle Thomas 2002. All rights reserved.
69. Dillon, L. (2014) Race, waste, and space: Brownfield redevelopment and environmental justice at the hunters point shipyard, *Antipode* 46(5): 1205 – 122
- This paper advances the concept of "waste formations" as a way of thinking together processes of race, space, and waste in brownfield redevelopment projects. Defined as formerly industrial and contaminated properties, in the 1990s brownfields emerged as the grounds for new forms of urbanization and an emerging environmental remediation industry. Through their redevelopment, the twentieth century's urban wastelands-environmentally degraded, economically divested, and often racially marked-have become sites of investment, resignification, and value formation. The concept of waste formations provides a critical framework on the ways these socio-ecological transformations rework twentieth century urban inequalities-in particular, the articulation of waste and toxic waste-and the ways they produce new geographies of environmental injustice through the displacement of toxic waste to newly waste-able spaces. This paper develops an analytic of waste formations and applies it to the process of brownfield redevelopment at the Hunters Point Shipyard in southeast San Francisco. © 2014 John Wiley & Sons, Ltd
70. Dixon, T. (2008). Heroes or Villains? The Role of the UK Property Development Industry in Sustainable Urban Brownfield Regeneration. *Sustainable Brownfield Regeneration: Liveable Places from Problem Spaces*, Blackwell Publishing Ltd: 89-118.
- [no summary]
71. Dixon, T.^a, Adams, D.^b (2008) Housing supply and Brownfield regeneration in a post-Barker world: Is there enough Brownfield land in England and Scotland?, *Urban Studies* 45(1): 115–139
- The findings of the Barker review, which examined the reasons for the undersupply of UK housing, have important implications for the devolved constituents of the UK, including Scotland. This paper traces the emergence of the brownfield regeneration policy agenda across

the UK and examines how the Barker review connects with this brownfield policy focus. The paper compares housing and brownfield policies and practices in England and Scotland, places them in an international context and elicits wider lessons for devolved governance in relation to housing policy, in terms of 'centrist-local' tensions. Estimates based on published data suggest that Barker's emphasis on increased housing supply cannot easily be reconciled with the current emphasis on brownfield development and is likely to require a return to greenfield development in both countries. © SAGE Publications, Inc. 2008

72. Dixon, T. (2007). "The property development industry and sustainable urban brownfield regeneration in England: An analysis of case studies in Thames Gateway and Greater Manchester." *Urban Studies* 44(12): 2379-2400.
- The property development industry is a key actor in UK brownfield regeneration projects. UK policy has attempted to interlink 'sustainable development' and 'sustainable brownfield' policy agendas, which have found an additional focus through the UK government's 'Sustainable Communities Plan', part of a growing international emphasis on sustainable development. This paper examines the emergence of these agendas and related policies, and the role of the property development industry in the regeneration of six differing brownfield sites, based in Thames Gateway and Greater Manchester. Using a conceptual framework, the paper investigates aspects of the sustainability of these projects and highlights key lessons from them for both the UK and overseas. The research is based on structured interviews with a variety of stakeholders, including developers, planners, consultants and community representatives to highlight emerging best practice and related policy implications.
73. Dixon, T. (2006) Integrating sustainability into brownfield regeneration: Rhetoric or reality? - An analysis of the UK development industry, *Journal of Property Research* 23(3): 237–267
- In the UK and elsewhere the use of the term sustainable brownfield regeneration has resulted from the interweaving of two key policy themes, comprising sustainable development and brownfield regeneration. This paper provides a critical overview of brownfield policy within the context of the emerging sustainable development agenda in the UK, and examines the development industry's role and attitudes towards key aspects of sustainable development and brownfield regeneration. The paper analyses results from a survey of commercial and residential developers carried out in mid-2004, underpinned by structured interviews with eleven developers in 2004-2005, which form part of a two-and-a-half-year EPSRC-funded project. The results suggest that despite the increasing focus on sustainability in government policy, the development industry seems ill at ease with precisely how sustainable development can be implemented in brownfield schemes. These and other findings, relating to sustainability issues (including the impact of climate change on future brownfield development), have important ramifications for brownfield

regeneration policy in the UK. In particular, the research highlights the need for better metrics and benchmarks to be developed to measure 'sustainable brownfield regeneration'. There also needs to be greater awareness and understanding of alternative clean-up technologies to dig and dump

74. Doick, K.J., Sellers, G., Castan-Broto, V., Silverthorne, T. (2009) Understanding success in the context of brownfield greening projects: The requirement for outcome evaluation in urban greenspace success assessment, *Urban Forestry and Urban Greening* 8(3): 163-178
- Many European governments place strong emphasis on integrated land use policies, particularly the re-establishment of public open access greenspaces through brownfield land regeneration. The UK Government considers the regeneration of brownfield land a prime tool for the delivery of regional economic regeneration, neighbourhood renewal and international biodiversity commitments. A number of failed brownfield greening projects question both the sustainability of such undertakings and whether greenspaces are fulfilling the functions they were designed for. Reliance on developer-, funding body- and site owner-centric notions of success in project delivery evaluation, to the exclusion of social and environmental impacts, has failed to highlight revenue requirements for management and maintenance to maintain function and quality. Brownfield greening project aims and objectives can be characterised as inputs, processes, outputs and outcomes using the general organisational 'logic' framework model. Applying this framework to six UK case studies, this research demonstrated that most greenspace aims and objectives are in fact 'outcomes' delivered in the medium and long terms following regeneration. The model is supportive of integrated, stakeholder inclusive monitoring over short, medium and long time periods. Physicochemical and social data from the case study sites were employed to present a comprehensive evaluation of site success. In each case, a lack of monitoring and evaluation - combined with insufficient supporting revenue funds - failed to highlight site issues, changes in local emphasis and ultimately a lack of success with respect to project aims and site sustainability. This research supports claims that capital funds to regenerate land must be supported by a revenue package for management and maintenance, that monitoring must be a funded activity; and, that monitoring and evaluation in support of the management cycle will promote the long-term sustainability, value and use of a greenspace. Crown Copyright © 2009.
75. Dokić, I. and M. Sumpor (2010). "Brownfield redevelopment issues in Croatia." *Privredna Kretanja i Ekonomska Politika* 20(123): 57-86.
- The aim of this paper is to investigate how brownfield redevelopment, i.e., the redevelopment of derelict, abandoned or underused sites, where a real or perceived problem of contamination exists, might be approached in Croatia. Crucial in such activities is the involvement of many stakeholders, belonging to various institutional arenas, both formal and informal, and dispersed across various government levels. Such locations have emerged in Croatia due to transition and post-

war problems, and poor management in state-owned as well as privatised enterprises. The presence of such industrial sites has various adverse effects not only on the environment but also on the economic and social development of the regions and localities. Due to the complexity of initiating brownfield redevelopment processes and specific problems in Croatia, economic development initiatives are directed towards attracting greenfield investments and creating new industrial and entrepreneurial or business zones. Brownfield redevelopment is an issue through which the impacts of existing development policies in Croatia can be analysed. The paper concludes with the identification of possibilities for new modes of governance and participatory initiatives for brownfield redevelopment in Croatia.

76. Doleželová, L., et al. (2016). Investors and urban regeneration policies in Prague, Grada Publishing.
- The role of the private investors in urban redevelopment projects in Europe has grown in recent years. Urban development projects of large and multinational investors however reflect different requirements than those promoted by local urban regeneration policies. The strategies of the global investors who prefer large mono-functional blocks which can be easily managed and compared with other buildings irrespective of their location in other European cities stand in contrast to urban regeneration policies of the public authorities which seek to provide multi-function Land uses within the urban form, and which are designed to be at a human scale and coherent within the local context. The aim of this article is to show how the strategies of these investors influence the implementation of urban regeneration projects in Prague. This article compares the redevelopment of two sites in Prague on the basis of how the strategies of the investors and the strategies of the public administration are visible within urban redevelopment projects and to what extent the project manages to achieve the requirements of sustainability specifically in the area of mixed-use and social balance.
77. Dorsey, J.W (2009) Restorative environmental justice: Assessing brownfield initiatives, revitalization, and community economic development in St. Petersburg, Florida , *Environmental Justice* 2(2): 69 – 78
- Since the 1970s businesses have been leaving urban areas in order to build on cheaper real estate and/or to cluster in industrial parks. Many of these companies were polluting industries and their departure from previous locations, many times, left behind structures containing pollutants and hazardous waste in storage or in the local soil and water. These abandoned, idled, or under-used industrial or commercial facilities are called "brownfields." It is likely that residents and wildlife living in close proximity to these contaminated sites may have suffered adverse environmental impacts. Brownfield initiatives emerged from a movement seeking to reverse the tide of pollution production, inner city decay, and urban sprawl. Through brownfield redevelopment efforts across the nation, cities are being rejuvenated,

and property owners are able to divest their environmentally impaired assets and reinvest in community economic development. Policies created by federal, state, and local governments are being implemented that clean up and recycle thousands of acres of contaminated property, leading to job creation, pollution prevention, and greenfield preservation. Restorative Environmental Justice (REJ) as a concept highlights the ethical value of widening the scope of corporate organizational culture to include residential stakeholders. Restorative environmental justice taps into the recovery and re-distributive components of brownfield redevelopment. The notion of restorative environmental justice provides opportunities for corporate decision-makers and public officials to rectify or ameliorate situations that disenfranchised or harmed particular communities in the past. Restoration of a community's economic and social viability and environmental quality is a form of reparation for previous systemic inequities. This article will assess the current status of brownfield initiatives, urban revitalization, environmental quality, social justice, collaborative decision making, and community economic development in St. Petersburg, Florida. Factors to be discussed include investments in enterprise zones, community redevelopment areas, job training, local housing, community advocacy, and collaborative efforts to raise the standard of living in disadvantaged neighborhoods and achieve some level of "restorative environmental justice." © Mary Ann Liebert, Inc. 2009.

78. Dull, M. Wernstedt, K. (2010) Land recycling, community revitalization, and distributive politics: An analysis of epa brownfields program support, *Policy Studies Journal* 38(1): 119 -141
- This article examines social, economic, and political factors influencing the distribution of resources to local governments under the EPA Brownfields Program, an innovative federal effort to encourage the remediation and redevelopment of contaminated properties. Signed into law in 2002, the Small Business Liability Relief and Brownfields Revitalization Act provided the program with a congressional mandate, new tools to promote reuse such as liability protections, and increased funding up to a level of \$250 million per year. This article contributes to research on environmental regulatory reform with an analysis of successful and unsuccessful local government applicants for EPA Brownfields Program support between 2003 and 2007. Building on prior research, we develop a series of expectations and an empirical model, and estimate the influence of program priorities, government and civic capacity, interest group pressures, and institutional politics. Results point to significant relationships between program priorities and award patterns. Contrary both to EPA's explicit commitments to equity and to analysis of pre-2003 award patterns, however, we find negative correlations between the proportions of local populations that are nonwhite or low-income and the likelihood of receiving an award. In addition, better-resourced governments and several dimensions of political representation show

strong associations with the likelihood of winning awards. We conclude by discussing implications. © 2010 Policy Studies Organization.

79. Duží, B and Jakubínský, J. (2013), Brownfield dilemmas in the transformation of post-communist cities: A case study of Ostrava, Czech Republic, *Human Geographies* 7(2): 53–64

- The main purpose of the paper is to analyse the procedures of urban brownfield solutions, with a focus on the environmental and cultural-historical aspects. The paper explores the dilemmas of brownfield regeneration and redevelopment. These processes are placed in the wider perspective of multi - transformation processes of post-communist cities. We compared two former industrial zones - Karolina and the Lower Area of Vítkovice in the city of Ostrava - where we illustrated the key factors influencing their transformation. These case studies point to a unique example of urban industrial brownfields concentrated within the area around the city centre, surrounded by residential zones. These brownfields also reveal the scope of the problem, as they are connected not only with the urban structure, but also with environmental, economic, social and cultural aspects. To research the issue in depth, we mostly used a qualitative approach to examine perceptions and to frame the brownfield issue. We partly applied frame analysis, a narrative approach and we also used research techniques such as document content analysis, and in-depth interviews with relevant stakeholders who are involved in the remediation of brownfields and their subsequent re-use (N=15). We researched how stakeholders perceive and frame the problem and which solutions they prefer. Moreover, having made a comparison of the state of affairs between 2001 and 2012, we presented a deeper insight into the topic. We found quite a wide range of opinions toward the brownfields issue and its solutions. The main issues were related to people striving to find the identity of the city and the tension between the old and the new: looking for the direction of future development and the face of the city of Ostrava. We identified location, level of environmental degradation and social-economic conditions as the main factors that influence the brownfield issue.

80. Dziomba, M. (2006). "Large-scale projects at urban Brownfield. Revitalization and marketing processes and their influence on the projects success." *Berichte zur Deutschen Landeskunde* 80(1): 65-84.

- Despite relatively good circumstances, large-scale urban flagship-projects at central locations of German metropolises are struggling due to lacks of public acceptance, delays in realization, and decreasing market demand. Against this background, this article addresses the integration of real estate economics into the research area of large-scale projects and urban revitalization. The major challenge is the size of these projects: the quality of location varies greatly within large areas and the new developments' critical mass floods the local property markets. These projects - whose success usually is preassumed - are initiated in order to serve several

purposes at the same time: to bring abandoned sites back to life, to earn money by the disposal of new inner-city building sites and, to enhance the city's image and its locational factors in order to be more attractive for new companies and households. During realization however, problems occur due to conflicting aims, differing priorities of players, exaggerated expectations, the overestimation of location and market potentials, and last but not least due to inadequate forms of organisation and governance which interfere with efficient processes of revitalization and marketing.

81. Easthope, H. and B. Randolph (2009). "Governing the compact city: The challenges of apartment living in Sydney, Australia." *Housing Studies* 24(2): 243-259.
 - This paper addresses the challenges facing the strata sector in Sydney in the context of current Australian metropolitan planning strategies promoting increased urban consolidation. It argues that the current focus on higher density development is vulnerable to challenges of regulation, representation and termination in strata developments. Furthermore, the increasing size and complexity of strata schemes as well as the existence of ageing strata stock are placing pressure on the strata title system in NSW and these problems are likely to escalate as an increasing proportion of the population move into strata. Therefore, it is essential to comprehend the issues facing strata developments if they are to be effectively tackled. The concept of 'governance' provides one mechanism for improving this understanding.
82. Eckerd, A. and Heidelberg, R.L (2015), Public incentives, market motivations, and contaminated properties: New public management and brownfield liability reform, *Public Administration Review* 75(2): 252 – 261.
 - Brownfields pose challenges to both communities and policy makers. Public funds are insufficient to remediate these contaminated sites, but, given the uncertainty of contamination and the complexity of liability, private interests are reluctant to become involved for fear of future litigation. From a New Public Management perspective, market incentives can be used to encourage private sector remediation of sites. However, this change implies a shift in administrative function from regulation to "getting the incentives right." In this research, the authors investigate whether state and federal reforms aimed at increasing private sector involvement have actually done so, and they consider the implications for other goals of brownfield remediation, such as providing economic development assistance in communities where such change is needed. Findings show that developers respond to insurance and tax incentives, but the authors question whether public incentives are making unattractive redevelopment opportunities worth investing in or simply making profitable redevelopment opportunities more profitable. © 2014 by The American Society for Public Administration.

83. Eidelman, G. (2018). "Failure When Fragmented: Public Land Ownership and Waterfront Redevelopment in Chicago, Vancouver, and Toronto." *Urban Affairs Review* 54(4): 697-731.
- This article investigates the impact of public land ownership on long-term processes of urban development by comparing the political histories of waterfront redevelopment in Chicago, Vancouver, and Toronto. The study is driven by two research questions: Why have redevelopment efforts in Chicago and Vancouver apparently succeeded whereas those in Toronto failed? And what was the impact of public land ownership on these outcomes? Drawing from archival, interview, and geospatial data, I argue that land ownership conditions had a defining and enduring impact on the shape and scale of waterfront redevelopment in each city. What separates Toronto's waterfront from Chicago and Vancouver is not how much land was historically controlled by public versus private owners, but rather the relative distribution and concentration of these assets. Early political events involving the consolidation or fragmentation of land ownership established institutional arrangements that either enabled or inhibited effective implementation. © 2016, The Author(s) 2016.
84. Feldman, M. (2000). "Urban waterfront regeneration and local governance in Tallinn." *Europe - Asia Studies* 52(5): 829-850.
- This article analyses the efforts to regenerate the centrally located but underdeveloped waterfront of Tallinn, the capital city of Estonia, into an area of new offices, tourist services and up-market housing. The objectives of this article are twofold. First, it provides a case study of Tallinn waterfront revitalisation, focusing on the role of local governance in that project. Second, it examines the similarities and differences between Tallinn and the cases hitherto examined in the urban regeneration literature. I argue that, owing particularly to the fragmented and unstable institutional setting that is among the central components of post-socialist transformations, the waterfront regeneration process in Tallinn differs considerably from Western examples. Thus, the concept of entrepreneurial urban governance as a local coalition or partnership actively promoting local economic development, extensively used in Western contexts, has a limited applicability to Tallinn. I suggest that in order to improve our understanding of urban regeneration and local governance in Eastern Europe, research must incorporate the specific post-socialist context of urban development. In emphasising the specificity of this context, I do not wish to deny a diversity of experiences and circumstances among both Western and post-socialist cities, nor to imply a trite analytical separation of 'the West' and 'the East', but to argue for a sustained and in-depth engagement with post-socialist transformations. The article thus contributes to studies critically interrogating the ways in which we conceptualise the varied institutional and economic settings of urban regeneration and governance.

85. Ferdinand, AV. And Yu, D., (2016), Sustainable urban redevelopment: Assessing the impact of third-party rating systems, *Journal of Urban Planning and Development*, 142 (1): Article number 05014033
- Prioritization of urban redevelopment to achieve sustainable neighborhood revitalization has received considerable attention. This study investigates whether a prescriptive approach to urban development, the third-party rating system, coupled with a business intelligence dashboard, as a data visualization tool to display the status of redevelopment can provide feasible and intuitive integration of data in which to prioritize redevelopment. This study presents a new framework and key sustainability indicators based on existing third-party rating systems to prioritize redevelopment. These assessments are introduced into a spatial decision support system using a dashboard as an interactive tool to gather and consolidate data and to present an evaluative means for decision makers. The tool allows identification of the highest-priority sites for long-term and short-term redevelopment of properties in Paterson, New Jersey. The study attempts to advance knowledge in sustainable urban redevelopment through developing a dashboard visualization tool coupled with a third-party rating system. Results indicate the proposed approach enables decision makers to explore relationships among social, environmental, and economic variables more efficiently. Depending on local development priorities, the proposed approach is also able to reveal brownfield locations that have the highest potential for successful redevelopment, recovery of lost revenue, and return to beneficial use. © 2014 American Society of Civil Engineers.
86. Frantál, B, Greer-Wootten, B, Klusáček, P, Krejčí, T, Kunc, J, Martinát, S. (2015), Exploring spatial patterns of urban brownfields regeneration: The case of Brno, Czech Republic, *Cities* 44: 9–18
- Previous studies have demonstrated that the location of brownfields is an important factor affecting potential investor decisions and brownfields regeneration. In this study, the spatial patterns of urban redevelopment are explored, using an analysis of variance model for a detailed database of existing and regenerated brownfields in the city of Brno, Czech Republic. Any general pattern of regeneration - such as 'the closer to the city centre, the better', which would be valid for all brownfields - has not been found. Rather, regeneration seems to be a function of local development potential, local occupier-demand for specific utilities, and planning regulations. Higher rates of regeneration have been detected in densely built-up areas (inner city zones and housing estates), while lower rates are registered for areas with low population density and with a greater supply of green spaces (garden colonies, open spaces, industrial zones and villa residential districts). The factors of centrality and transport links are positively associated with retail and business development projects, but negatively associated with the projects of housing development and construction of civic amenities, for which population density and the socioeconomic structure of the local population are significant positive factors.

Important implications for further research and urban planning are formulated in the conclusions. © 2015 Elsevier Ltd.

87. Frantál, B, Kunc, J.^b, Klusáček, P.^c, Martinát, S.^d (2015) Assessing success factors of brownfields regeneration: International and inter-stakeholder perspective, *Transylvanian Review of Administrative Sciences* 44: 91-107
- The paper presents the results of an international comparative survey of stakeholders from four European countries (the Czech Republic, Germany, Poland and Romania). The aim was to identify and classify the 'success factors' of brownfields regeneration and to detect significant convergences and divergences concerning the drivers and barriers of regeneration processes in different geographical and institutional contexts. The existence of ecological burden or site contamination, overall regeneration costs and clarified ownership relations are considered the most important factors of regeneration internationally. Especially in Romania but also in Poland, the factors at national level (legislation, incentives, and foreign direct investments) are perceived to be more influential than in the Czech Republic and Germany, where a stronger emphasis is put on the location factors (whether a brownfield is located in rural, urban or inner city area) and transport links. Physical attributes such as the site's area and terrain are also considered among the most significant factors in Romania. While representatives of public administration emphasized more the importance of legislation, state incentives and general localization, the investors and developers highlighted local factors (landscape protection limits, place marketing, and previous use of brownfields). The emphasis on political and geographical factors increases with the level of experience of stakeholders, while the emphasis on site specific factors decreases with the length of experience. © 2015, Universitatea Babeş-Bolyai. All right reserved.
88. Frantzeskaki, N., et al. (2014). "The role of partnerships in 'realising' urban sustainability in Rotterdam's City Ports Area, the Netherlands." *Journal of Cleaner Production* 65: 406-417.
- Port relocation leaves a mark on the city's landscape and history. In Rotterdam, a medium-sized urban delta, the harbour activities are being relocated from close to the city centre to outwards on the sea. This leaves the city with a regeneration challenge accounting for an area of 1600 ha that it is addressed through the drawing up of an ambitious vision. We investigate the partnerships that emerged and contributed by taking up the realisation of the vision. The partnerships further develop and bring to the ground the vision while remaining inspired and driven by sustainability as a guiding and practicing principle. A mapping framework is developed to examine the governance imprint of partnerships along two axes: their impact in terms of synergies and the governance role they adopt. Success factors pertinent to the case include: the sustainability vision created a momentum for action, enjoyed political attention and commitment and was received as a flagship committing different actors to its implementation. Additional factors are the quick reflexes of different

agencies to take up action at the aftermath of the vision creation, the local government was open to experiment with new and old arrangements and in this way, it reinvented its role without losing its governing responsibility. In this context, partnerships take up meta-governance roles and coordinate self-organised collaborative governance processes while ensuring synergies and delivering on sustainability ambitions. © 2013 Elsevier Ltd. All rights reserved.

89. Franz, M.^a, Güles, O.^b, Prey, G.^c (2008) Place-making and 'green' reuses of brownfields in the Ruhr, *Tijdschrift voor Economische en Sociale Geografie*, 99(3): 316-328
- Depending on location, size and former use, brownfields in the Ruhr have different potentials. Besides brownfields where viable regeneration projects are possible there are many sites that are not attractive to the market. One type of use for this category is post-industrial nature (e.g. industrial forests). Following the overall concept of sustainable development, these sites offer potentials for creative 'place-making' by local residents. The approach of 'place-making' is embedded in the discussion of establishing local governance in urban districts of the Ruhr. Introducing one best-practice-case (the Rheinelbe industrial forest in Gelsenkirchen), the paper focuses on the discussion of 'place-making' as a strategy for innovative brownfield development and local governance using the example of the former Lohberg colliery in Dinslaken. © 2008 Royal Dutch Geographical Society KNAG
90. Gallagher, J. (2013). *Revolution detroit: Strategies for Urban reinvention*, Wayne State University Press.
- After decades of suburban sprawl, job loss, and lack of regional government, Detroit has become a symbol of post-industrial distress and also one of the most complex urban environments in the world. In *Revolution Detroit: Strategies for Urban Reinvention*, John Gallagher argues that Detroit's experience can offer valuable lessons to other cities that are, or will soon be, dealing with the same broken municipal model. A follow-up to his award-winning 2010 work, *Reimagining Detroit*, this volume looks at Detroit's successes and failures in confronting its considerable challenges. It also looks at other ideas for reinvention drawn from the recent history of other cities, including Cleveland, Flint, Richmond, Philadelphia, and Youngstown, as well as overseas cities, including Manchester and Leipzig. *Revolution Detroit* surveys four key areas: governance, education and crime, economic models, and the repurposing of vacant urban land. Among the topics Gallagher covers are effective new urban governance models developed in Cleveland and Detroit; new education models highlighting low-income-but-high-achievement schools and districts; creative new entrepreneurial business models emerging in Detroit and other post-industrial cities; and examples of successful repurposing of vacant urban land through urban agriculture, restoration of natural landscapes, and the use of art in public places. He concludes with a cautious yet hopeful message that Detroit may prove to be the world's

most important venue for successful urban experimentation and that the reinvention portrayed in the book can be repeated in many cities. Gallagher's extensive traveling and research, along with his long career covering urban redevelopment for the Detroit Free Press, has given him an unmatched perspective on Detroit's story. Readers interested in urban studies and recent Detroit history will appreciate this thoughtful assessment of the best practices and obvious errors when it comes to reinventing our cities. © 2013 by Wayne State University Press, Detroit, Michigan 48201. All rights reserved.

91. Gallagher, D.R., Jackson, S.E. (2008) Promoting community involvement at brownfields sites in socio-economically disadvantaged neighbourhoods, *Journal of Environment Planning and Magement*, 51(5): 615–630
 - Brownfields programmes provide environmental justice to distressed communities by applying private sector remediation and real estate expertise to abandoned and contaminated properties. This study examines how brownfields developers and community support organisations operating in socio-economically disadvantaged neighbourhoods work to increase awareness of projects in the community, build trust between stakeholders and create mechanisms for community members to participate in brownfields decision making. Analysis of case study data from brownfields sites in four US cities shows that developers and non-governmental organisations can play important roles in fashioning redevelopment outcomes which benefit both developers and communities. When standard required outreach efforts are combined with non-traditional community involvement mechanisms, the result is often long-term support for redevelopment projects.
92. Galland, D. and C. J. Hansen (2012). "The roles of planning in waterfront redevelopment: From plan-led and market-driven styles to hybrid planning?" *Planning Practice and Research* 27(2): 203-225.
 - This paper delves into the different styles and roles that planning adopts in contemporary waterfront redevelopment. Traditionally, waterfront redevelopment practices have consisted of an array of plan-led and market-driven planning styles upon which the derelict areas of postindustrial cities have been transformed. Typical examples from North America and Europe generally tend to focus on the successes that these processes have generated in connection with large-scale and emblematic projects. However, less attention has been devoted to the efforts of a more recent generation of cities undergoing waterfront redevelopment, which often features different planning rationalities, forms of governance, and competing interests. While the precise character of this newer generation does not yet seem defined, the rise of planning practices that combine previous planning styles has been key in allowing these cities achieve their redevelopment aims. In adding to this emerging generation, this paper examines the nature of waterfront redevelopment processes in Aalborg, Denmark, wherein hybrid planning styles characterized by situation-dependent and relational planning processes have

increasingly substituted former practices. The paper concludes that planning adopts different roles depending on the determinants that qualify each redevelopment case, and that hybrid planning may be subjected to public interest dilemmas given its capacity to adapt to certain political and socioeconomic patterns. © 2012 Copyright Taylor and Francis Group, LLC.

93. Ganser, R.^a, Williams, K.^{a,b} (2007) Brownfield development: Are we using the right targets? Evidence from England and Germany, *European Planning Studies*, 15(5): 603-622
 - Urban brownfield sites are a major planning concern across Europe, and most European countries have strategies to reuse them. In England and Germany, quantified targets for brownfield development have been set at the national level, with the twin objectives of furthering urban regeneration and reducing greenfield development. This paper explores the implications of these quantified targets, particularly with respect to their ability to contribute to meeting these twin objectives. It explores their shortcomings and highlights implementation problems
94. Gibbons, J.S., Attoh-Okine, N.O., Laha, S. (1998) Brownfields redevelopment issues revisited, *International Journal of Environment and Pollution*, 10(1): 151-162
 - The value of revitalizing contaminated or brownfield sites has gained widespread acceptance. The efforts at remediation and eventual redevelopment of these sites involve several stakeholders, because the exercise directly impacts a number of different interests. The key issues to be resolved for the successful rejuvenation of brownfields are technical, legal, financial, future land use and community issues. Satisfactory resolution of these issues results in a happy confluence of interests working together to ensure the full exploitation of these underused assets. This paper fully discusses the issues and the attendant obstacles to redevelopment of brownfield sites, and examines some of the more successful approaches that have been employed.
95. Glumac, B, Han Q, Shaefer, W. (2018), A negotiation decision model for public-private partnerships in brownfield redevelopment, *Environment and Planning B: Urban Analytics and Science* Volume 45, Issue 1, 1 January 2018, Pages 145-160
 - Urban development cannot proceed without the commitment of multiple actors, because decision-making processes have become more and more interdependent. This article supports better decision-making in brownfield redevelopment projects in cases where the project realization depends on a public-private partnership between a municipality and a developer. In a broader sense, in this research, we investigate how the negotiation process in brownfield redevelopment projects can be improved by providing an understanding of the characteristics of a brownfield area and the interaction between the parties involved. In order to improve the process, a negotiation decision model is proposed. This is a hybrid model consisting of five phases. Its novelty lies in the combination of a latent class model and

a strategic choice model that can be formulated as a prescriptive-interactive approach in decision theory. The hybrid negotiation model is applied to a reconstructed case study in order to present its possibilities. Accordingly, three applications of the model are introduced, and in each application the beneficiary is a municipality. Although using decision models for brownfield redevelopment projects has already been thoroughly studied, there is little evidence concerning the prescriptive-interactive component built into existing models. © 2016, © The Author(s) 2016

96. Glumac, B, Han, Q. and Schaefer, WF. (2015), Actors' preferences in the redevelopment of brownfield: Latent class model, *Journal of Urban Planning and Development*, 141(2): Article number 04014017
- Numerous authors have argued that the redevelopment of a brownfield can provide a range of benefits. For example, the physical improvements of a brownfield result in better site characteristics such as lower contamination levels, better site accessibility, and eventually improve the image of a neighborhood. On the other hand, applying proper legal policies leads to a less complicated ownership structure and might result in a faster approval process. These physical improvements and legal policy endeavors often lead to financial benefits such as value capturing or improved real estate value. However, the necessity to deal simultaneously with physical improvements, legal policies, finances, and the tradeoffs that need to be considered therein may explain why brownfield problems are not easily resolved. In addition, many actors are involved in the redevelopment process. Actors such as the municipality, developer, and landowner might have different preferences regarding the essential physical, legal, and financial characteristics. A bundle of such characteristics is regarded as a product or a future brownfield site in this paper. Furthermore, the preference is the impact of a product configuration. This paper highlights the potential of a latent class model in quantifying the variation of the actors' preferences in the context of brownfield redevelopment. A latent class model is a statistical technique that looks at the choices that individuals make between alternatives of products and allows analysts to examine the impact of product configuration on different classes of individuals. An online survey was conducted to gather the required data for this method. More specifically, stated preference data covered the opinions of 111 area development practitioners in the Netherlands. As a result, four real market actors are identified and labeled by their preferences in order to present the potential of using a latent class model as a quantitative tool for mapping the preferences of stakeholders in a brownfield redevelopment project. © 2014 American Society of Civil Engineers.
97. Grantmyre, L. (2015). "Ideas, actors, conflicts, and contexts matter: Postwar planning in American Urban history." *Journal of Urban History* 41(5): 936-942.
- The books reviewed delineate how planning ideas influenced redevelopment projects and how specific projects and local conflicts

influenced planning ideas. The essays selected by Bishwapriya Sanyal, Lawrence J. Vale, and Christina D. Rosan for *Planning Ideas that Matter* explore how concepts such as sustainability, New Urbanism, and good governance shaped planning practice and were influenced by global, academic, and national contexts. Patsy Healy's essay 'Communicative Planning: Practices, Concepts, and Rhetorics' also shows how a planning idea developed and evolved, but locates the concept's revision primarily within academic discourses. Thomas's case study on Detroit, *Redevelopment and Race*, similarly underscores how the interplay between social movements, planners, and planning discourses shaped Detroit's postwar redevelopment. Thomas surveys urban planning in Detroit from its intellectual origins in the 1930s, through its vicissitudes in the slum clearance and Black Power eras, and to its present challenges of underpopulation and economic torpor. In *Insuring the City*, Elihu Rubin focuses on the role that the Prudential Insurance Company and its vision for postwar cities played in transforming Boston's Back Bay business district. Together these writers narrate a complicated tale of urban renewal and redevelopment.

98. Green, TL., (2018) Evaluating predictors for brownfield redevelopment, *Land Use Policy* Volume 73, April 2018, Pages 299-319
- This paper quantitatively examines what drives brownfield redevelopment and what factors predict a completed brownfield redevelopment. This research investigated 200 brownfield properties that were listed with the United States Environmental Protection Agency (EPA) and redeveloped between the years 2000 and 2015. Three significant correlations were found in this study: socio-economic factor (income level), green development, and tax incentives significantly correlated with brownfield redevelopment. The combination of six predictor variables was analyzed using multiple regression. Socio-economic (income level) [$\beta = 0.27$, $t = 3.96$, $p < 0.001$] and sustainable building practice (green development) [$\beta = -0.17$, $t = -2.56$, $p = 0.01$] significantly predicted brownfield redevelopment. Type of contamination ($\beta = 0.07$, $t = 0.98$, $p > 0.05$), political climate ($\beta = -0.04$, $t = -0.52$, $p > 0.05$) and stakeholder involvement ($\beta = 0.04$, $t = 0.62$, $p > 0.05$) did not significantly predict brownfield redevelopment. Hypothesis two and four assessed predictors of brownfield redevelopment. The findings indicated a significant relationship between brownfield redevelopment and two variables (a) socio-economic factor (income levels) significantly predicted brownfield redevelopment, and (b) green development significantly predicted brownfield redevelopment. The higher value of socio-economic factor, the higher value of brownfield redevelopment. The projects with sustainable development had high brownfield redevelopment value than projects without green development. Recommendations for practice include (a) developers and other stakeholders incorporate sustainable building practices in brownfield redevelopments, (b) government agencies involved in the building

process such as building and planning departments provide narratives of best practices in sustainable building to help guide brownfield redevelopments and implement policies to mitigate the displacement of low income residents (c) creation of a centralized database of brownfields that have been redeveloped detailing the project attributes. Recommendations for future research may include (a) quantitative study of demographic factors such as age, gender, race, and education as possible predictors of successful brownfield redevelopment and (b) a study on the types of contamination that have been successfully remediated resulting in a successful brownfield redevelopment. © 2018 Elsevier Ltd

99. Greenberg, M.^a, Craighill, P.^a, Mayer, H.^b, Zukin, C.^c, Wells, J.^d (2001) Brownfield redevelopment and affordable housing: A case study of New Jersey, *Housing Policy Debate*, 12(3): 515–540
- A total of 779 New Jersey residents were surveyed to determine the number of people who during the next five years would be willing to move to housing built on brownfield sites that have been remediated to the extent that they pose no plausible brownfield-related health risk to residents. Fourteen percent of the respondents said they would be willing to move to and live in housing built on cleaned-up brownfields. These respondents were disproportionately relatively poor and young and resided in apartments and cities, especially cities where the city government was actively promoting brownfields. These respondents also did not like their current neighborhoods, did not feel threatened by the idea of living on a cleaned-up brownfield site, and trusted experts to advise them on the health risks involved.
100. Grubbauer, M. and N. Čamprag (2018). "Urban megaprojects, nation-state politics and regulatory capitalism in Central and Eastern Europe: The Belgrade Waterfront project." *Urban Studies*.
- In this paper, we explore how state-led regulatory planning is utilised to push for delivery of an urban megaproject (UMP) in the specific context of post-socialist Central and Eastern Europe. Our focus is on the large-scale brownfield redevelopment project 'Belgrade Waterfront' under implementation in the Serbian capital, a joint venture between the Republic of Serbia and Abu Dhabi-based investor Eagle Hills. We show this UMP to be an extreme example of state-led regulatory intervention, characterised by lack of transparency and haste in decision-making processes, all of which serve to prioritise private investors' interests in project delivery above the principles of representative democracy. Through analysis of legislative and planning documents, expert reports and media coverage from the period between 2012 and 2017, we explore the legislative mechanisms, contractual strategies and modes of governance involved in the project's delivery. This provides two insights: first, it reveals that, in contrast with the active role of local governments in conceiving entrepreneurial strategies that is often assumed today, in the case of Belgrade Waterfront, the national government has instead played the decisive role; second, it shows how modifications to

national law were instrumental in defining public interest, in enabling certain types of contracts to become technically legal, and in minimising risks for the private investor. We conclude by highlighting the need to further conceptualise nation-state politics and autocratic rule as driving forces of urban development processes. © 2018, Urban Studies Journal Limited 2018.

101. Guironnet, A., et al. (2014). "Building cities on financial assets: The financialisation of property markets and its implications for city governments in the Paris city-region." *Urban Studies* 53(7): 1442-1464.
 - The 2008 global financial meltdown has redirected attention to the entwinement of financial markets and the urban built environment. Against that background, recent works in urban political economy have focused on how city governments support the rent-maximisation strategies of landowners, thereby reinforcing 'the increasing tendency to treat land as a financial asset' (Harvey, [1982]2006). However, this perspective paradoxically understates the importance of market finance actors, neglecting to demonstrate how, in practice, such financial investors, who have been shown to adopt selective investment practices, shape urban redevelopment projects. In this article, the role of financial investors is analysed through a case study of a large-scale redevelopment project on the outskirts of the Paris city-region (city of Saint-Ouen). The analysis of negotiations over urban design and economic development issues – raised by property developers seeking to fashion commercial properties as investment assets – reveals the unevenness of a local authority's ability to implement an agenda that potentially diverges from the expectations of financial investors. Accordingly, given the growing importance of investors in the ownership of the built environment, the article considers urban redevelopment as the outcome of power relations that originate in the circulation of investors' expectations. These expectations are met through translating market finance categories (risk, return and liquidity) into elements of the urban fabric. This bears substantial consequences for policy-making, given the current context of austerity, as municipal authorities are increasingly constrained to rely on property markets. Urban redevelopment projects are thereby increasingly shaped to provide investment assets for financial investors. © 2015, © Urban Studies Journal Limited 2015.
102. Gute, D.M Taylor, M (2006) Revitalizing neighbourhoods through sustainable brownfields redevelopment: Principles put into practice in Bridgeport, CT, *Local Environment* 11(5): 537-558
 - This article chronicles activities and approaches carried out in working with community partners and public and private stakeholders in advancing revitalization within Bridgeport, CT. The approach described utilizes brownfields redevelopment as a focal point for a stakeholder process whose goal is neighbourhood revitalization. Two neighbourhoods - the West End and East End - are the focus for major stakeholder-driven brownfields redevelopment processes. The article defines key elements of the stakeholder process including:

involvement at several levels from neighbours to the site to the Mayor's office and beyond, a risk communication process that incorporates the broad concerns of the stakeholders including crime and violence, and the need for ongoing oversight and management throughout the redevelopment process.

103. Hafner, S. and M. Miosga (2008). "Mega projects in Munich in the area of conflict among competitive urban development strategy, social integration and ecological interests." *DISP* 171(4): 25-35.
 - Using two large urban development projects in the Bavarian capital of Munich as examples, this essay shows the relationship among the development strategy promoting urban competitiveness, stabilizing social cohesion and considering ecological aims. It presents specific answers to the problem of conflicts between goals. Not least, the success of this "sustainable triad" depends on a strategic organizational capacity to arrange a development policy that ensures consensus among the participating actors, builds partnerships in planning, financing and implementation and mobilizes different kinds of resources. The ensurance of democratic legitimacy and citizens' participation, even at the beginning of the planning processes, and the intensive involvement of the city council are key factors for the acceptance of the projects. Linking large urban development projects to cohesive strategic planning facilitates their mediation. The strategic management of large urban development projects is seen as an interesting field of experience for urban governance because it strengthens the governability of urban politics in implementing ambitious goals with diverse partners by searching for compromises and solutions for conflicts and problems.
104. Hagerman, C. (2007). "Shaping neighborhoods and nature: Urban political ecologies of urban waterfront transformations in Portland, Oregon." *Cities* 24(4): 285-297.
 - This research critically examines the planning and redevelopment of historic industrial waterfronts adjacent to downtown Portland, Oregon. While the city's economy once centered on its waterfronts, economic restructuring and industrial decline rendered obsolete many of these spaces and their ancillary warehouses and railyards. The city and the region have pinned their hopes for the future on real estate development, biotech and the creative economy. The waterfront has become the site of considerable residential and commercial redevelopment that transforms underutilized areas into an expanded downtown following a familiar model of condos, restaurants, offices and galleries. These remade waterfront districts must be considered within the way in which articulations of nature and urbanity are mobilized in order to shape expectations and consumption of the new neighbourhoods. This is particularly relevant given the city's prominence in academic and mainstream media regarding its liveability and environmentalism. Waterfront ecological restoration, urban liveability, and sustainable technologies all appeal to the urban imaginaries of planners, developers and residents while potentially

displacing other concerns or questions. Public-private partnerships and strategic rescaling suggest new governance regimes are articulated in the visioning, planning and development of these districts, simultaneously reconstructing neighbourhoods and ecologies. Portland is often considered (and considers itself) at the leading edge of progressive urban development and politics. Careful criticism of the city's production of new urban spaces should be pursued to avoid foreclosing opportunities for articulating alternate urban futures. © 2007 Elsevier Ltd. All rights reserved.

105. Häußermann, H. and K. Simons (2001). "Developing the New Berlin: Large projects - Great risks." *Geographische Zeitschrift* 89(2-3): 124-133.
 - Large-scale urban redevelopment projects are the most visible revitalisation strategies pursued by cities in search of economic growth and competitiveness. In view of a profound socio-economic change they have become an important policy tool in the new Berlin. Large projects strive to recreate the image of the city and to induce private-sector investment. Town planners actively engage in co-operation with private partners who take charge of managing the development of large urban areas. Strong public sector support is necessary in the initial stages, clearing and preparing the sites and building the basic infrastructure. This is illustrated by the Berlin-Adlershof development project. The aim is to create a "new city" of science and economy. The case study examines how the urban revitalisation project is embedded in the institutional framework and the socio-political dynamics of the city. Large projects are a high-risk endeavour because they make political control more difficult and they constitute a challenge to the public budget. They gather momentum in their own specific way. If implementation runs into trouble, the projects are hard to modify. Here we discuss why large projects quickly reach the "point of no return". Self-binding models, financial dependencies, and complex webs of relations keep the "machine" running. The case study demonstrates that urban development policy, which attempts to take advantage of the market, can drift into troubled waters.
106. Hayek, M Arku, G and Gilliland, J. (2010) Assessing London, Ontario's brownfield redevelopment effort to promote urban intensification, *Local Environment* 15(4): 389–402
 - Intensification of existing urban areas is currently a major item on the policy agenda of the Ontario and Canadian governments. As part of the urban intensification drive, brownfield sites have become major candidates for redevelopment. Governments at all levels have initiated policies and programmes to encourage their remediation and redevelopment. This paper reports the findings of a qualitative exploration of brownfield redevelopment in London, Canada. Through in-depth interviews (n = 17) with key stakeholders involved in brownfield redevelopment, the study explores the level of participation in brownfield redevelopment, barriers to brownfield redevelopment in the city, and perceptions about financial incentives in the city's Brownfield Community Improvement Plan. The study found that

despite the availability of financial incentives, the overall private sector participation in brownfield redevelopment is low due to barriers such as competition from greenfield, risk, cost, negative public perception of brownfields, and complex remediation processes. The paper provides policy suggestions that may contribute to a more active participation in brownfield redevelopment in the city. © 2010 Taylor & Francis.

107. Healey, P. (2006). "Relational complexity and the imaginative power of strategic spatial planning." *European Planning Studies* 14(4): 525-546.
- This paper explores the imaginations of place and spatial organization and of governance mobilized in recent experiences of strategic spatial planning for urban regions in Europe. Drawing on examples of such experiences, it examines how far these imaginations reflect a relational understanding of spatial dynamics and of governance processes. Spatial imaginations are assessed in terms of the nature of the spatial consciousness expressed in a strategy, the way the multiple scales of the social relations of a place are conceived, and the extent to which relational complexity is understood and reflected in a strategy. Governance imaginations are assessed in terms of how the relation between government and society is imagined, how the tensions between functional/sectoral and territorial principles of policy organization are addressed, and what assumptions are made about the nature and trajectory of transformative processes in governance dynamics. The paper concludes that signs of a recognition of the "relational complexity" of urban and regional dynamics and of territorially-focused governance processes can be found in these experiences, but a relational understanding is weakly-developed and often displaced by more traditional ways of seeing place/space and governance process. The paper concludes with some comments on the challenge of developing a stronger understanding of "relational complexity" within strategic spatial planning endeavours. © 2006 Taylor & Francis.
108. Healey, P. (2006). *Urban complexity and spatial strategies: Towards a relational planning for our times*, Routledge Taylor & Francis Group.
- *Urban Complexity and Spatial Strategies* develops important new relational and institutionalist approaches to policy analysis and planning, of relevance to all those with an interest in cities and urban areas. Well-illustrated chapters weave together conceptual development, experience and implications for future practice and address the challenge of urban and metropolitan planning and development. Useful for students, social scientists and policy makers, *Urban Complexity and Spatial Strategies* offers concepts and detailed cases of interest to those involved in policy development and management, as well as providing a foundation of ideas and experiences, an account of the place-focused practices of governance and an approach to the analysis of governance dynamics. For those in the planning field itself, this book re-interprets the role of planning

frameworks in linking spatial patterns to social dynamics with twenty-first century relevance. © 2007 Patsy Healey. All rights reserved.

109. Healey, P. (2004). "The treatment of space and place in the new strategic spatial planning in Europe." *International Journal of Urban and Regional Research* 28(1): 45-67.
- This article examines recent European experiences in urban and regional spatial strategies. It focuses specifically on the concepts of space and place deployed within these strategies and the institutional work these concepts are called upon to do. It explores how far such concepts reflect the shift in geographical thought to a dynamic, discontinuous, relational conceptualization of spatiality. These issues are explored through an analysis of three recent strategic planning episodes: The Netherlands Fifth National Policy Document on Spatial Planning, the Regional Development Strategy for Northern Ireland, and the Framework Document for Milan. All are innovative in their contexts in one way or another and provide exemplars of new ways of thinking about space and place, and the role of spatial strategies in contemporary governance contexts. All the episodes reflect in some way new relational geographical ideas, but many traditional planning ideas live on. The analysis highlights the political dimensions of developing new spatial vocabularies to guide urban and regional development and the significance of the institutional context in shaping and accepting new spatial planning concepts. © Joint Editors and Blackwell Publishing Ltd 2004.
110. Hebb, T., et al. (2010). "Responsible property investing in Canada: Factoring both environmental and social impacts in the Canadian real estate market." *Journal of Business Ethics* 92(SUPPL 1): 99-115.
- Institutional investors and corporations increasingly recognize that extra-financial determinants of business performance can both create value and uncover significant risks within a business or investment portfolio. For companies that invest in, develop, own, or operate commercial real estate assets, this awareness of extra-financial impacts has led to a significant interest in what has been called responsible property investment (RPI). Within the field of RPI, green real estate - real estate investment and management that seeks to reduce the environmental impacts of building construction and operations - has begun to receive attention. This attention has been extended over the past decade to community property development projects, where both social and environmental considerations related not only to the building, but also the project site and surrounding community are integrated into management and investment decisions. Some examples of these projects include affordable and workforce housing, urban revitalization and brownfield redevelopment. More social-focused issues such as labour and workplace considerations are also key components of responsible property investing, yet to date labour issues have received little attention in the RPI literature and workplace considerations are reflected indirectly through environmental considerations in the green building literature. This

paper explores responsible real estate investment in Canada by taking an integrated approach in examining both environmental and social factors and their potential impact on such investments. A series of semi-structured interviews are conducted with key stakeholders in Canada to gain insight into how using environmental and social factors may influence long-term risk and financial returns in real estate investment in Canada with particular emphasis on institutional investors engaged in these practices. Data is used to analyse the impact that ESG considerations have on financial performance of these assets. Jantzi-Sustainalytics ESG ratings are used along with the stock price changes of fourteen real estate companies and REITs to interrogate this question. © Springer 2010.

111. Hedblom, M., et al. (2017). "Flexible land-use and undefined governance: From threats to potentials in peri-urban landscape planning." *Land Use Policy* 63: 523-527.
- Densification of cities is presently one of the dominating strategies for urbanization globally. However, how densification of cities is linked to processes in the peri-urban landscapes is rather unknown. The aim of this paper is to highlight the potentials in of peri-urban landscapes to be recognized as complementary providers of urban ecosystem services when green areas in cities are reduced by densification. We suggest that the way forward is to change the perceptions of peri-urban areas from being defined as located between cities and rural areas with a specific population density or a geographical distance, to become recognized as a landscape defined by its functionality. By identifying and describing the functionality in peri-urban landscapes the existing governance gaps can be recognized and thus dealt with through adaptation of existing planning tools. Although not yet articulated, peri-urban areas should be used to facilitate integration of top down and bottom up approaches and thereby closing the governance gaps. We illustrate this reasoning by two examples; one of the establishment of green wedges in Stockholm, Sweden, and the other with the establishments of international Model forests. We conclude that further densification of cities will create a lack of ecosystem services in cities by putting an even higher pressure on the peri-urban landscape and not as suggested today that densification lower pressure on peri-urban landscapes. Rethinking and reframing the peri-urban areas by adapting existing platforms will potentially contribute to a more nuanced discussion on strategies for urban development generally. © 2017 Elsevier Ltd
112. Heeg, S. (2008). "Property-led development as a new approach in urban development? South Boston Waterfront in Boston as a case study." *Erdkunde* 62(1): 41-57.
- In many cities, property-led development seems to be an attractive and practicable strategy in order to enhance socioeconomic growth. Cities boost with attractive investment environments and locations in large-scale redevelopments in order to attract external investors and affluent households. Urban development projects are part and parcel

of strategies to gain a favourable position in the urban competition. However, this goes along with the attempt to guarantee favourable investment conditions in order to convince project developer and investors to realize buildings. This implies variances in zoning and urban planning and tax incentives which absorb speculative risks of the developers. This urban development strategy is analyzed in the context of a shift towards entrepreneurialism and new forms of urban governance. The case study to support the argument is the South Boston Waterfront, a large-scale redevelopment project in Boston.

113. Hudspeth, T. R. (1986). "Visual preference as a tool for facilitating citizen participation in urban waterfront revitalization." *Journal of Environmental Management* 23(4): 373-385.

- This study demonstrates the value of visual preference assessments for facilitating citizen participation in urban waterfront revitalization. Participants' preferences for 40 black-and-white photographs of present and potential uses of urban waterfronts, when combined with their responses to verbal items on the questionnaire, provide planners, managers and designers with meaningful information about the type of urban waterfronts citizens would like. The study was carried out in Burlington, Vermont, a city which is in the process of revitalizing its waterfront. -from Author

114. Janssen-Jansen, L. B. (2013). "Delivering urban intensification outcomes in a context of discontinuous growth: Experiences from the Netherlands." *Built Environment* 39(4): 422-437.

- The collapse of existing urban planning and land and property development systems in Europe as a result of severe financial turbulence and uncertainty challenges ongoing political ambitions to enhance the competitiveness and liveability of cities. In many European countries, the urban land and property markets are severely disrupted, reinforced by dwindling and increasingly 'reregulated' private financial resources, while public spending is curtailed due to the recession and debt crisis. As a consequence, many urban intensification development projects are substantially delayed or even cancelled. The growth paradigm, dominant in planning policies, requires a fundamental rethink in light of these circumstances. Further, many European cities also face structural difficulties as a result of demographic changes of stagnating population growth and an ageing population. This paper reconceptualizes the delivery of urban intensification programmes using the Netherlands as an example. This examination considers the parameters that act to exacerbate growth stabilizing situations. It will explore issues of equitable urban intensification and discuss the role of local planning and development policies and implementation tools in this context.

115. Klusáček, P., et al. (2018). "Good governance as a strategic choice in brownfield regeneration: Regional dynamics from the Czech Republic." *Land Use Policy* 73: 29-39.

- The application of principles of good governance in brownfield regeneration, for instance through improved transparency and

participation of various groups of stakeholders, varies between regions and cities. In this article, we approach good governance as a strategic response of actors in the struggle for creating development opportunities on brownfield land. Good governance has been mostly seen as a normative consideration, but it is not clear why regions with lower development prospects would employ it more than better developed regions, as it recently happened in the Czech Republic. We assume that the public administration at the regional and municipal level plays an active role in devising strategies to attract investors for brownfield redevelopment. This process brings public administrations in interaction with each other and with investors, regulators and civil society groups within a society-wide brownfield redevelopment field. This field is an arena where all these different actors struggle for redeveloping their brownfield land. Regional and municipal administrations from developed regions stand to benefit from their higher economic growth potential and hence have a dominant position within the field. We identify the latter as the incumbents or “power-holders” of the national brownfield regeneration field. Less developed regions have lower attractiveness for brownfield redevelopment, which places them in a subordinate position in the field. They are so-called challengers that are likely to favor alternative strategies for their brownfields, going beyond mere economic attractiveness. By comparing differently developed regions and regional capitals in the Czech Republic, we show how some challengers use good governance, such as responsiveness, participation and transparency, as an alternative strategy to attract investors despite their economic predicament. For regional capitals, however, good governance is practiced both by highly developed and less developed cities. We draw evidence from interviews with key stakeholders and socio-economic data at the regional and municipal level in the Czech Republic. In the conclusion, we show some of the identified limitations in good governance, such as obstacles to participation, responsiveness or transparency, and how they can be recognized and overcome. © 2018 Elsevier Ltd

116. Korthals Altes, W.K. (2006) The Single European Market and land development, *Planning Theory and Practice* 7(3): 247-266
 - The Single European Market could conceivably make a deep impact on established practices of land development. Changes to the explicit and implicit rules that have hitherto governed the land market will reshape the actions of agencies. Rules on state aid and public procurement are particularly pertinent to land development. European regulations on state aid have ended the system of gap funding for the regeneration of brownfields in the United Kingdom and public procurement rules may put an end to land-development contracts in which owners provide the local government with infrastructure in kind.
117. Korytářová, J., Hanák, T., Lukele, P.E. (2017) Economic efficiency of brownfield regeneration: Study of South Moravian projects, *Scientific Review Engineering and Environmental Sciences*, 26(2): 151-158

- The objective of brownfield regeneration is to increase the attractiveness and value of individual sites to a level where they can compete directly with the construction of a greenfield project. The aim of this paper is to examine the economic efficiency of brownfield regeneration. By using CBA outputs, the contribution of socio-economic efficiency to the total efficiency of individual projects based on EBCR was investigated on the basis of a sample of 14 projects located in the South Moravian Region. Furthermore, the expected value of EBCR was simulated by using the Monte Carlo method. The results reveal that socio-economic efficiency contributes significantly to the overall efficiency of these projects and therefore cannot be neglected during their evaluation. At the end of the paper, future research directions in this area are outlined
118. Kotval-K, Z., et al. (2017). "Creating public assets from brownfields: A comparison of policies and practices in the United States and Germany." *Journal of Urban Regeneration and Renewal* 11(1): 60-78.
- Brownfield redevelopment is a major urban issue on a global platform. As older industrial sectors give way to new clean and green industries, the physical remnants of older industrialised areas need to be addressed. Brownfields have the potential of being change agents in communities as they move from being industrial ruins to adaptive reuse or open spaces. This paper explores how brownfields can become public assets and how policies and regulations in two continents promote, hinder or challenge this transformation. © Henry Stewart Publications.
119. Kotval-K, Z., et al. (2017). "Should the public sector play a greater role funding brownfield redevelopment projects? A transatlantic comparison." *International Planning Studies* 22(4): 366-383.
- In the US and Germany, various public funding tools are available to make brownfield redevelopment projects financially feasible. The practices of private or public sector involvement differ from an international perspective. The following discussion will explore funding practices in the US and Germany. In Germany, there is a long tradition of public sector involvement while the US is predominately driven by private sector funding. A comparison will help identify long-standing practices in Germany and how they might be adapted to the US context. In a manner similar to the previous chapter on policies and programs, findings in this chapter are discussed at federal US, state of Michigan and local municipal levels, and European Union, Germany, and local-level funding. © 2017 Informa UK Limited, trading as Taylor & Francis Group.
120. Križnik, B. (2018). "Transformation of deprived urban areas and social sustainability: A comparative study of urban regeneration and urban redevelopment in Barcelona and Seoul." *Urbani Izziv* 29(1): 83-92.
- The transformation of deprived urban areas is important for strengthening social sustainability in particular localities, and it is also instrumental in attracting new investments to cities. Speculative urban development, however, often ignores the social importance of

localities and considers them mere economic assets that can be stripped of historical, social, and symbolic meaning and turned into easily marketed commodities. This article examines the somewhat contradictory role of the transformation of deprived urban areas in cities. It compares Barcelona and Seoul, two cities with different historical, cultural, and institutional contexts. The 22@ Activity District in Poblenou and Wangsimni New Town are explored as case studies to understand how urban regeneration and urban redevelopment are embedded in a particular locality and what consequences they have on social sustainability. Although the two cases differ in terms of planning approach, stakeholders, and institutional contexts, the findings suggest that the consequences for social sustainability were similar in both. The article argues that declining social cohesion and a lack of citizen participation were a consequence of speculative urban development, in which urban regeneration and urban redevelopment were instrumentalized to attract investments, strengthen economic competitiveness, and improve the city's global appeal rather than address diverse local challenges. © 2018 Urban Planning Institute of the Republic of Slovenia. All rights reserved.

121. Lang, R. and J. LeFurgy (2007). "Boomburb "Buildout": The future of development in large, fast-growing suburbs." *Urban Affairs Review* 42(4): 533-552.
 - Many "boomburbs" - large, fast-growing suburbs - are nearing their "buildout," the point at which development has reached a city's borders or has exhausted large-scale greenfield options. Boomburbs will soon face a decision: Do they stop booming once they reach their current limits or develop a new growth model that more intensively uses existing land? Or will they annex more space for continuing greenfield development? The authors surveyed 140 boomburb governments about their buildout plans. The respondents provided information on several variables, including future density, the amount of space left to build on, and the mixture of land uses that will fill this space. The answers varied widely, with some places looking to become far more urbanized, while others rush to build even lower-density development. Yet most boomburbs expect to grow denser as they build out. The article concludes with a discussion on two policy implications of buildout: annexation and governance. © 2007 Sage Publications.
122. Lee, T. P. (2015). "Brownfield redevelopment justice." *Taiwanese Political Science Review* 19(1): 1-58.
 - Brownfield redevelopment is meant to correct environmental injustice but the redevelopment process and benefit distribution could result in injustice again. However, brownfield redevelopment justice has rarely drawn public attention because people wrongly believe that a revitalized brownfield site indicates that justice has been served for pollution victims. To evoke discussions on brownfield redevelopment justice, this paper focuses on justice issues involved in processing brownfield revitalization, including the application of several main

justice perceptions, as shaped by Bentham, Nozick, Kant and Rawls, on brownfield practice, and the examination of the justice perceptions held by the authors of the current brownfield redevelopment literature. This paper finds that the justice presented in the current literature can be classified into two categories. There is that literature which believes in utilitarianism and laissez-faire which emphasizes an efficient redevelopment process. There is also other literature that believes in freedom and equality, which emphasizes distributive justice, including the equal distribution of redevelopment opportunities among brownfield communities and the equal distribution of redevelopment benefits among stakeholders. In addition, there is procedural justice, with its focus on meaningful public participation in the decisionmaking process. This paper contends that the justice perceptions that are discussed are not contradictory to each other when applied to brownfield redevelopment and concludes that a human-respecting justice perception should be developed for brownfield redevelopment embedded in a specific Taiwanese social context. Copyright © 2015 Taiwanese Political Science Association. All Rights Reserved.

123. Leffers, D. and P. Ballamingie (2013). "Governmentality, environmental subjectivity, and urban intensification." *Local Environment* 18(2): 134-151.
 - This article delineates concepts of eco-modernisation and urban sustainability (including its associated discourses), elucidating Foucault's notion of governmentality and examining select moments of contested urban governance in the neighbourhood of Old Ottawa South, in Ottawa, Ontario, Canada. It shows how intensification - a "compact city approach" to urban sustainability - as both policy and practice, serves to both discipline and regulate by "conducting the conduct" of environmental and entrepreneurial subjects. It reveals that zoning has more explicitly become a political technology (albeit a flexible one) for achieving "highest and best use" of private property, privileging intensification projects proposed by developers, through a hierarchical exercise of state power that privileges market processes, while undermining community values and priorities. © 2013 Copyright Taylor and Francis Group, LLC.
124. Lelong, B. (2014). "Grasping micro-macro-interactions in urban development politics: A multidimensional network approach to collective action." *Historical Social Research* 39(2): 203-234.
 - Cities are continuously evolving formations. Change occurs mostly incrementally, but sometimes more radical shifts transform the urban fabric. Considering the complexity of urban development processes, this paper asks for the conditions of collective action which enable an urban policy change deviating from established planning and political perceptions and interpretations, routines and actual balances of power. To capture the structuring conditions, the paper employs Emirbayer and Goodwin's theoretical approach (1996), which conceptualizes cultural, social-structural and social-psychological contexts of action. The paper translates their framework into a

network-theoretical methodology which provides an analytical template for the exploration of two empirical case studies. The paper outlines a multilevel analysis and discusses the qualitative network reconstruction and a frame analysis. Interpreting the findings of the political implementation processes of two waterfront redevelopments, it can be assumed that strategic networks of interdependent but loosely coupled actors aspired to overcome hegemonic network domains. The analysis reveals two types of networks, which show an exclusive and an inclusive logic of action respectively. Apart from this general distinction, both cases indicate certain supportive conditions which helped to consolidate the new urban development schemes. Regarding the methodology, it can be concluded that the integrated analysis of actor configurations, cultural frames and social-psychological conditions allowed for an encompassing analysis and helped to discern a variety of constraining and enabling conditions on human agency in urban politics.

125. Leung, B. Y. P. and E. C. M. Hui (2005). "Evaluation approach on public-private partnership (PPP) urban redevelopments." *International Journal of Strategic Property Management* 9(1): 1-16.
- Urban redevelopments in recent years tend to follow a pragmatic market-led partnership approach with involvement of both public and private sectors. However, it has been evidenced that this approach suffers from a number of deficiencies. These include over-reliance on private investments which make the project vulnerable to financial risks and over-emphases on creating a place of opportunity rather than improving the social environment in the deprived areas. This paper proposes an approach encompassing Cost-Benefit Analysis (CBA) and Option Pricing concepts (OP) into urban renewal projects which is considered more appropriate for urban redevelopment appraisal. The approach is applied for appraising the bust-boom saga of the London Docklands redevelopment to demonstrate the importance of the inclusion of social costs and benefits in the evaluation and the strategic value of operating options. Furthermore, key factors for an urban redevelopment project are also identified from the analyses which are considered crucial for the success of the project. © 2005, Taylor & Francis Group, LLC. All rights reserved.
126. Liebmann, H. and T. Kuder (2012). "Pathways and Strategies of Urban Regeneration-Deindustrialized Cities in Eastern Germany." *European Planning Studies* 20(7): 1155-1172.
- Following the collapse of the German Democratic Republic in 1989, many cities of Eastern Germany embarked on a long-term process of shrinking, characterized by the complex interplay of changes in the demographic, socio-economic and urbanistic structure of the cities. Shrinking processes can be traced back to the complex interplay of processes associated with post-socialist transformation with overall processes of economic re-structuring in globalization context. The article begins with an overview of research on characteristics of shrinking processes in different medium-sized cities of the new federal

states. Next, the article researches the political responses and the development policies of selected cities as a means of managing shifts in basic social, economic and investment conditions. The principal focus here is the different institutional pathways of regeneration that cities have embarked upon as a consequence of "shrinkage" and the concrete strategies that have emerged. As yet, however, no long-term or dominant development paths can be discerned in local governance modes and the formulation of new regeneration strategies. The regeneration of shrinking cities and the associated development of new futures for these cities must be understood as part of a long process, in which many paths of development can emerge through the long selection process, as each competes for acknowledgement, attention and limited financial resources. © 2012 Copyright Taylor and Francis Group, LLC.

127. Lightbody, J. (1998). "Council multiplicity and the cost of governance in Canadian metropolitan areas." *Canadian Journal of Urban Research* 7(1): 27-46.
- Do Canadian metropolitan regions have too many governments? In the debate between advocates of greater municipal consolidation and public choice theory there is little enough hard evidence. In headline terms, argument over any reform of metropolitan institutions, with few hard tests, is usually cast along lines which involve notions of centralized governing efficiencies set against historic neighbourhood and community identity. In this essay, the author examines the comparative cost of governing an urban region with multiple councils. Employing a case study of the two socio-economically similar urban centres of Edmonton and Calgary, he contrasts some very specific governing expenditures of a generally polycentric system with those of one that has evolved as more unitary. Consolidated government is found to cost less. It is observed that 'community identity' is rooted in municipal politicians' continued drive to exist. It is hypothesized that to continue with fragmented local institutions will stand as a real barrier to the development of more effective regional growth strategies for Canadian urban centres in the competitive international economy.
128. Limasset, E., Pizzol, L Merly, C.^d, Gatchett, A.M.^e, Le Guern, C.^f, Martinát, S.^g, Klusáček, P.^h, Bartke, S.ⁱ (2018) Points of attention in designing tools for regional brownfield prioritization, *Science of the Total Environment* 622-623: 997-1008
- The regeneration of brownfields has been increasingly recognized as a key instrument in sustainable land management, since free developable land (or so called "greenfields") has become a scare and more expensive resource, especially in densely populated areas. However, the complexity of these sites requires considerable efforts to successfully complete their revitalization projects, thus requiring the development and application of appropriate tools to support decision makers in the selection of promising sites where efficiently allocate the limited financial resources. The design of effective prioritization tools is a complex process, which requires the analysis and consideration of critical points of attention (PoAs) which has been identified

considering the state of the art in literature, and lessons learned from previous developments of regional brownfield (BF) prioritization processes, frameworks and tools. Accordingly, we identified 5 PoAs, namely 1) Assessing end user needs and orientation discussions, 2) Availability and quality of the data needed for the BF prioritization tool, 3) Communication and stakeholder engagement 4) Drivers of regeneration success, and 5) Financing and application costs. To deepen and collate the most recent knowledge on the topics from scientists and practitioners, we organized a focus group discussion within a special session at the AquaConSoil (ACS) conference 2017, where participants were asked to add their experience and thoughts to the discussion in order to identify the most significant and urgent points of attention in BF prioritization tool design. The result of this assessment is a comprehensive table (Table 2), which can support problem owners, investors, service providers, regulators, public and private land managers, decision makers etc. in the identification of the main aspects (sub-topics) to be considered and their relative influences and in the comprehension of the general patterns and challenges to be faced when dealing with the development of BF prioritization tools. © 2017 Elsevier B.V.

129. Longo, A, and Campbell, D, (2017), The Determinants of Brownfields Redevelopment in England, *Environmental and Resource Economics*, Volume 67, Issue 2, 1 June 2017, Pages 261-283
 - This paper uses discrete choice models, supported by GIS data, to analyse the National Land Use Database, a register of more than 21,000 English brownfields—previously used sites with or without contamination that are currently unused or underused. Using spatial discrete choice models, including the first application of a spatial probit latent class model with class-specific neighbourhood effects, we find evidence of large local differences in the determinants of brownfields redevelopment in England and that the reuse decisions of adjacent sites affect the reuse of a site. We also find that sites with a history of industrial activities, large sites, and sites that are located in the poorest and bleakest areas of cities and regions of England are more difficult to redevelop. In particular, we find that the probability of reusing a brownfield increases by up to 8.5 % for a site privately owned compared to a site publicly owned and between 15 and 30 % if a site is located in London compared to the North West of England. We suggest that local tailored policies are more suitable than regional or national policies to boost the reuse of brownfield sites. © 2016, The Author(s).
130. Loures, L, Vaz, E. (2018) Exploring expert perception towards brownfield redevelopment benefits according to their typology, *Habitat International* 72: 66-76
 - The term brownfield is generally used to describe both spatially and formalistically everything from polluted industrial landscapes to former factory buildings, including vacant or abandoned properties usually found in older, declining sections of a city. This fact, is increasingly considered an important set back in understanding the variability existing within the different landscapes generally typified as

brownfields, contributing somehow to prevent their regeneration and augmenting the length of time land is vacant or underutilized. In fact, though poorly assessed, this circumstance reveals one of the main questions that those aiming to work in brownfield transformation have to deal with, which is the relevance of understanding their characteristics and different typologies (abandoned land, contaminated land, derelict land, underutilized land and vacant land), as a means of achieving a consistency that enables the creation of new methodologies and frameworks to deal with the redevelopment of these spaces. In this regard, this research presents a critical review of the information on brownfield redevelopment, considering not only the use of existing literature but also the analysis of twenty-five brownfield redevelopment projects, in order to identifying on the one hand, the existing brownfield typologies, and on the other hand the benefits associated to each of the identified brownfield typologies. Considering the objectives of the research, expert participation was introduced as a crucial element of the processes, throughout the use of email and internet surveys, that enabled not only the collection of information regarding their level of agreement towards different brownfield typologies, but also their view on the benefits associated with each one of the identified typologies. The collected data enabled us to conclude that even if the redevelopment of the different brownfield typologies have direct and indirect benefits at different dimensions, they are very diverse influencing society and citizens' life's quality on different ways. The performed analysis showed that according to experts' perspectives, while the transformation of derelict land is the brownfield typology which brings more benefits on the defined identified dimensions, with special impact on infrastructure, economy, community, ecology and health, the development of vacant land, though equally important, is the one that has less benefits to society, since its benefits are felt mainly on community and recreational dimensions. When analyzed independently, the obtained results might give designers, planners and decision makers valuable information on the benefits associated to each of the five brownfield typologies identified throughout this research, enabling them to better decide on which sites to developed first, considering not only the objectives behind the development, but also the different dimensions positively affected by the redevelopment. © 2016 Elsevier Ltd

131. Mahzouni, A. (2018), Urban brownfield redevelopment and energy transition pathways: A review of planning policies and practices in Freiburg, *Journal of Cleaner Production* 195: 1476 – 1486.
 - This paper explores the role of urban brownfield redevelopment in navigating and enhancing energy transition in the built environment by conducting a case study of three city districts in Freiburg: Rieselfeld, Vauban, and Gutleutmatten, which have emerged from previously-developed lands used for sewage farm, army barracks, and inner-city allotment, respectively. It contributes to unpacking the social structure of planning system by analysing the dichotomy of structure and agency in the process of energy transition with particular focus on domestic energy use, both related to transport and in-dwelling use. The aim is to bring to light a new aspect of the complex relationship

between brownfield redevelopment and energy transition by addressing the co-evolutionary interaction between structure and agency. The results show that the energy transition in the brownfield sites in Freiburg has been possible by gaining a broader agency for changing or reproducing the existing structure for planning and urban design. The broader agency was facilitated by two factors: the effective interaction and co-evolution between different elements of institutions: regulative, normative and cultural-cognitive; and the introduction and enactment of schemas (rules) across different sectors of urban design, energy, mobility, and civic participation. However, it is hard to transfer the outcomes of energy transition in the targeted sites to other places because of the unique temporal and socio-spatial context in which the transition has taken place. © 2017 Elsevier Ltd

132. Majoor, S. J. H. and W. G. M. Salet (2008). "The enlargement of local power in trans-scalar strategies of planning: Recent tendencies in two European cases." *GeoJournal* 72(1-2): 91-103.
- The increasing 'trans-scalar' conditions of urbanity imply unique opportunities and threats for urban policies. When drawing up strategic urban policies, cities are confronted with the dominance of higher level policy programmes and even more so with the hegemonic power of globalizing markets. Could urban policies also undergo a similar change and actively pursue the enlargement of local power and energies by becoming actively involved in the higher level scaled networks? By building on useful concepts of urban regime theory and more recent rescaling theories, the authors argue that this element of 'foreign policy' should be integrated in the core analysis of urban policy approaches. The case is explored and illustrated in two European examples of strategic urban planning, namely Barcelona and Copenhagen. The cases provide evidence of the enlargement of local power via active trans-scalar policies. For civic groups, however, this strategy still appears to be a bridge too far in both cases. © 2008 The Author(s).
133. Maliene, V.^a, Wignall, L.^a, Malys, N.^b (2012) Brownfield regeneration: Waterfront site developments in Liverpool and Cologne, *Journal of Environmental Engineering and Landscape Management* 20(1): 5-16
- The regeneration of brownfields has recently gained prominence due to greenfield land restrictions as well as their potential to promote the urban renaissance. On the examples of Kings Waterfront in Liverpool and Rheinauhafen in Cologne the paper aims to evaluate how brownfield regeneration practice compares, given that local, national and European bodies have invested significant amounts of time and expenditure to the revitalisation of sites. The literature review provides a background to the issues which need to be overcome for developments such as Liverpool's Kings Waterfront and Cologne's Rheinauhafen to become a success. In order to determine the state of current brownfield practice in Liverpool and Cologne, we explore the public opinion and information from specialists in the field. The study shows that, if exploited correctly, brownfield sites can provide a

catalyst for economic growth in the inner city areas where they once have been deprived. Finally, studied cities were found to contain many examples of best practice with regards to brownfield sites situated on rivers. These successful schemes could be used to reignite the regeneration of other world cities. Copyright © 2012 Vilnius Gediminas Technical University (VGTU) Press Technika

134. Manceau, E.(2014). "The conversion of the industrial area of Bagnoli in Naples: Failure's anatomy." *BELGEO*(1).
 - In a context of territorial competition, most metropolitan cities wish obtain a national, European or international relevant position through majors urban projects in suburban and marginal areas. The case of Bagnoli, in the city of Naples, like others examples, includes some attributes in order to reach the target of a successful urban transformation process and the construction of the "Metropolitan Urban Factory". Nevertheless, in this case, urban policies are so confusing that it could undermine the opportunity of this project. This article investigates the relationships and links between actors at nationals, regional and local levels. It focuses on negative opinions and the lack of territorial strategy for this urban project. © NCG with the SRBG.
135. Mäntysalo, R., et al. (2015). "Legitimacy of Informal Strategic Urban Planning—Observations from Finland, Sweden and Norway." *European Planning Studies* 23(2): 349-366.
 - In Finnish, Swedish and Norwegian cities and urban regions, strategic approaches in urban planning have been developed by introducing different kinds of informal strategic plans. The means of improving the strategic quality of urban and regional planning have thus been searched from outside the statutory land use planning system, determined by the national planning laws. Similar development has also taken place elsewhere. When strategic plans are prepared outside the statutory planning system, these processes also lack the legal guarantee for openness, fairness and accountability. This is a serious legitimacy problem. In this article, the problem is examined theoretically and conceptually by combining democracy- and governance-theoretical perspectives. With this framework, four different approaches to legitimacy are derived: accountability, inclusiveness, liberty and fairness. The article concludes that strategic urban planning must find a balance between the four approaches to legitimacy. Concerning political processes, this requires agonistic acknowledgement of different democracy models, excluding neither deliberative nor liberalist arguments. Concerning administrative processes, it requires acknowledgement of the interdependence of statutory and informal planning instruments and the necessity of developing planning methods for their mutual complementarity—thus avoiding the detachment of informal strategic planning into a parallel planning “system”. © 2014 Taylor & Francis.
136. Marshall, T. (2000). "Urban planning and governance: Is there a Barcelona model?" *International Planning Studies* 5(3): 299-319.

- Barcelona has become well known in Europe for its ambitious programmes of planning and urban regeneration, undertaken under the leadership of the city council. It has been claimed that a 'Barcelona model' of planning has been formed, whether in local urban planning, or in overall city strategic planning, or both, and with this a distinctive approach to urban governance. Whilst some of the dimensions of change have been fully described, they have been analysed rather less; this applies particularly to the period after 1992. Four somewhat distinct forms of planning are examined ('normal' urban planning, strategic planning, infrastructure planning and metropolitan regional planning). An assessment is made as to how far these have formed a coherent whole, and whether this has been problematic for how the development of the city is being guided.
137. Martinat, S, Navratil, J, Hollander, J.B, Trojan, J, Klapka, P., Klusacek, P. Kalok, D (2018) Re-reuse of regenerated brownfields: Lessons from an Eastern European post-industrial city, *Journal of Cleaner Production* 188: 536-545
- Brownfields constitute a substantial portion of the land area in post-industrial cities. Many brownfields have been regenerated for various uses, addressing a range of extant problems in urban areas. However, re-use plans for current brownfields are driven by market demand and public sector prioritization and do not always meet the requirements of local residents and visitors. In this paper, we investigate how a range of brownfields re-use options are perceived by residents and visitors to the Landek area in the city of Ostrava (Czech Republic). By analysing the results of the questionnaire survey (n = 180) we found that future brownfields uses such as culture/sport and children's park are the most popular options. We found that gender was a statistically significant predictor of preferred reuse options. Women are strong supporters of the above-mentioned re-use options, while men tend to favour re-use options which promote industry. Remarkably, respondents, in general, lacked concrete ideas concerning alternative re-use options of brownfields, suggesting that professional urban planners can be of assistance in the planning of the future use of brownfield sites. © 2018 Elsevier Ltd
138. Martinát, S, Kunc, J., Klusáček, P., Krejčí, T., Navrátil, J., Vnenková, J., Černík, J. (2015) Spatial relations and perception of brownfields in old industrial region: Case study of Svinov, *Geographia Technica*, 10(2): 66-77
- Regeneration of brownfields gradually becomes an important challenge for regional and local development across the East-Central European countries. Due to the recent huge economic transition and global societal changes thousands of abandoned sites (brownfields) sprang up across the landscape after various economic activities, the Czech Republic included. This paper evaluates the perception of brownfields along with their individual re-use options by local population in one of the city districts of Ostrava which was heavily influenced by industrialisation during the last 150 years (Svinov city district, city of Ostrava, eastern part of the Czech Republic). The first

part of the paper is devoted to brief theoretical aspects of brownfields regeneration and its perception. The second part of the paper presents us with the results of the questionnaire survey which was carried out among local population of Svinov (n=163) focusing on the perception of five selected local brownfield sites. It was found out that the issue of brownfields rouses huge discussions among public of the model area of Svinov. Among the most supported re-use options of local brownfields greenery and cultural facilities were identified. Brownfield sites located outside the settled area of the city quarter are almost disregarded while the re-use of centrally located sites for greenery is strongly supported. In the final part of the paper, the findings are synthesized and recommendations for public administration and potential investors are formulated. © 2015, Asociatia Geographia Technica. All rights reserved.

139. McCauley, S. M. and J. T. Murphy (2013). "Smart growth and the scalar politics of land management in the Greater Boston region, USA." *Environment and Planning A* 45(12): 2852-2867.
- Recent decades have witnessed a significant transformation in strategies of urban environmental governance as authority has shifted from statist command-and-control systems to more horizontal, networked forms of governance-beyond-the-state. In the USA the changing nature of state authority over urban-regional planning processes has been particularly dramatic in metropolitan regions promoting 'smart-growth' agendas. Smart-growth strategies address regional planning and land-development concerns through market-based incentive programs aimed at increasing development densities and coordinating other land-management priorities. This paper explores the scalar politics through which smart-growth policies in the Greater Boston region of Massachusetts (USA) are being constructed and contested. In this region the state of Massachusetts has used incentive programs, new forms of regulation, and public-private coalitions to implement a smart-growth agenda that seeks to ameliorate the region's housing crisis and sustain its pool of knowledge-economy workers, but these programs also challenge the traditional authority of local communities in governing land-use decisions. Crucial to this assertion of land-management authority at the state scale has been the legacies of past forms of authority and land management, the ability of the state to exploit the positionalities of key actors associated with the smart-growth agenda, and the role of crises (in housing, congestion) in making increased state control more palatable. © 2013 Pion and its Licensore.
140. McCarthy, L (2009) Off the Mark?: Efficiency in targeting the most marketable sites rather than equity in public assistance for brownfield redevelopment, *Economic Development Quarterly* 23(3): 211–228
- Targeting public redevelopment funding toward the most marketable brownfields is viewed as an economically efficient use of scarce resources because it may guarantee the greatest likelihood of success. But to what extent does this policy result in spatial and social

inequities by neglecting contaminated sites in distressed neighborhoods containing minority and low-income populations? This case study of Milwaukee, Wisconsin, identified that tracts with above-average percentages of African Americans and Hispanics, although containing above-average numbers of brownfields per square mile and higher percentages of brownfields compared to percentage of the city's area, had below-average city-assisted redevelopments as a percentage of all brownfields. A policy implication is that despite difficulties promoting brownfield redevelopment in distressed neighborhoods, in addition to economic efficiencies, more emphasis is needed on the social benefits of public assistance for brownfield redevelopment, including potential spillover benefits, such as crime reduction and health improvements for surrounding neighborhoods. © 2009 The Author(s).

141. McCarthy, L. (2002) The brownfield dual land-use policy challenge: Reducing barriers to private redevelopment while connecting reuse to broader community goals, *Land Use Policy* 19(4): 287–296
- Brownfields are abandoned or under-utilised sites with known or suspected environmental contamination. Public-sector efforts to promote brownfields redevelopment face a dual land-use policy challenge. On the one hand, government agencies must help reduce the barriers to private-sector reuse by addressing the uncertainties created by four major issues: legal liability for contamination; uncertain cleanup standards; availability of funding for redevelopment; and complicated regulatory requirements. On the other hand, brownfields reuse must be connected to wider community efforts to achieve environmental protection, central city revitalisation and reduced suburban sprawl. This involves tackling sustainable development and environmental justice issues: the marketability of brownfields; the social costs and benefits of developing greenfields versus redeveloping brownfields and meaningful community participation. This paper examines the progress by US local, state and federal agencies during the last decade in addressing this dual challenge. It is based on a review of the interdisciplinary brownfields literature, and evidence from Toledo, Ohio, whose experience promoting cleanup and reuse reflects that of many Midwestern and Northeastern cities. © 2002 Elsevier Science Ltd. All rights reserved.
142. Medina, J. S. (2013). "Urban governance, competitiveness and renewal process in the medium-sized Spanish cities." *Boletín de la Asociación de Geógrafos Españoles*(61): 47-66+367-372.
- In 1989, the World Bank adopted the term «governance» to define new structures of cooperation among public, private and the «third sector». Shortly thereafter, strategic planning and urban governance came together to promote major transformation projects in selected cities who wanted to improve their competitiveness, encouraging in parallel the real estate development. Twenty years after the first examples, when these approaches are transferred to medium cities, the balance hides many contrasts.

143. Mele, C. and M. H. McLeskey (2018). Pro-growth urban politics and the inner workings of public-private partnerships. *The Routledge Handbook on Spaces of Urban Politics*, Taylor and Francis: 62-69.
- Urban politics in North American and, to some extent, Western European cities continues to be defined by tenacious efforts to capture footloose and highly competitive private investment to stimulate local economic development. In older cities especially, public investment in property-led urban redevelopment, in the shape of mega-sports stadiums, entertainment venues, mixed-used residential-hotel-retail projects and educational-medical research complexes, is now rendered valid and reasonable by the much-promised increase in commerce, tax revenues, employment and other forms of economic growth (Altshuler and Luberoff 2003; Orueta and Fainstein 2008). Economic growth is now so fully normalized as the priority for urban development that competing models, such as sustainable community development, are considered exceptional and, frequently, idealistic. Pro-growth urban politics is equated with an entrepreneurialism and efficiency with local governments expected to work with the private sector (Erie et al. 2010; Sagalyn 2007; Stadtler 2014). A pro-growth politics of economic development relocates actual governance of urban development - building of stadiums, revitalized waterfronts, and so on - from traditional (and publicly accountable) government (i.e. city councils, planning departments and housing authorities) to collaborative organizational arrangements between public and private sectors. The central mechanism of pro-growth governance of urban development is the public-private partnership (Dewulf et al. 2011; Erie et al. 2010; Grimsey and Lewis 2004; Osborne 2000). © 2018 selection and editorial matter, Kevin Ward, Andrew E.G. Jonas, Byron Miller and David Wilson; individual chapters, the contributors.
144. Meyer, P.B.^a, Lyons, T.S (2000) Lessons from private sector brownfield redevelopers: Planning public support for urban regeneration, *Journal of the American Planning Association*, 66(1): 46-57.
- Municipal brown field redevelopment efforts have tended to assume that the sites involved were economically non-competitive. They have thus focused on public acquisition of contaminated property and direct incentives to specific on-site activities. The emergence of a growing number of entrepreneurial firms that redevelop brownfields-often with minimal public involvement-suggests limits to the efficacy of this approach for large and very “dirty” sites that continue to stand abandoned to the frustration of local planners and economic developers. New approaches to public support for such regeneration may be suggested by closer examination of the private brownfield entrepreneurs. This article reports the results of a survey of these developers, suggesting that planners can contribute to more efficient use of public economic development resources by recognizing when public intervention really contributes to, and when it may inadvertently

- detract from, the attractiveness of sites a community wants to see regenerated. © 2000 Taylor & Francis Group, LLC.
145. Mian, N. A. (2008). "Prophets-for-profits': Redevelopment and the altering urban religious landscape." *Urban Studies* 45(10): 2143-2161.
 - This paper examines the redevelopment activities of religious institutions in the greater New York City area. In recent years, more and more churches have been selling their property and air rights to create either commercial and market-rate housing or affordable housing. Through archival material and interviews with pastors, the purpose of this descriptive paper is to understand why and how religious institutions, primarily churches, decide to alter their function by becoming entrepreneurial and engaging in property development. The changing character of these institutions is explained through the lens of theories of religious ecology and institutional isomorphism. The paper concludes with suggestions for improvement of the development process. © 2008 Urban Studies Journal Limited.
 146. Miceli, T. J. and C. F. Sirmans (2007). "The holdout problem, urban sprawl, and eminent domain." *Journal of Housing Economics* 16(3-4): 309-319.
 - Developers attempting land assembly often face a potential holdout problem that raises the cost of development. To minimize this extra cost, developers will prefer land whose ownership is less dispersed. This creates a bias toward development at the urban fringe where average lot sizes are larger, resulting in urban sprawl. This paper examines the link between the holdout problem and urban sprawl and discusses possible remedies, including the use of eminent domain for urban redevelopment. © 2007 Elsevier Inc. All rights reserved.
 147. Miller, J.F Davidson, C.I Lange, D.A Meyer Grelli, M.L (2011) Brownfields and environmental justice: Income, education, and race , *Environmental Justice* 4(2): 121–124
 - Brownfields are parcels of chemically contaminated land that are not redeveloped due to the expense of cleanup. Correcting any environmental injustice associated with brownfields can involve redevelopment efforts that account for economic disparities. Here we show that economic conditions in communities with brownfields that have received funding from the United States government are significantly worse than in the nation as a whole. These results suggest that there is an opportunity to right this environmental injustice by choosing to remediate brownfields in economically depressed areas in ways that address both environmental risk and the economic health of communities with brownfields. © 2011 Mary Ann Liebert, Inc.
 148. Miranda, D. S. and E. P. Babo (2013). "Housing strategies in urban regeneration projects: Braga's urban regeneration strategic programme case study." *Revista Portuguesa de Estudos Regionais* 32(1): 35-56.
 - Recent analysis of the housing problem in Portuguese cities has shown that, in the past decades, the housing function in inner city areas tend to be reduced to less competitive market segments with

lower income and less quality. This emptying of the inner city areas, with regard to housing and population, is inevitably linked to the excessive growth of housing supply in urban sprawl areas, this being a key problem of the Portuguese housing market. The most recent efforts to restructure the National City policies triggered new challenges for the planning and management of consolidated urban areas, particularly in respect of urban regeneration. Within this framework were created new planning, urban management and financing tools, able to influence the housing sector and real estate market. However, the implementation and execution of the new legal and political framework have shown several difficulties: the interdependence of such practices with local political contexts regarding the formulation of global territorial strategies; the coordination and compatibility between the different legal frameworks and instruments, such as land, urban regeneration and housing policies; the ability to the public and private setor to interact and cooperate between them. Throughout this paper, the authors tried to highlight some of these considerations based upon a particular case: the Braga's historic centre Urban Regeneration Strategic Programme (adjusted to the new urban rehabilitation legal framework - Decree-Law 307/2009).

149. Moini, G. and B. Pizzo (2017). Riding roughshod over people: Reading politics, economy and civil society in metropolization. A case study in Rome. *The Governance of Local Communities: Global Perspectives and Challenges*, Nova Science Publishers, Inc.: 3-20.
- Over the last few decades the political, economic, spatial, and social characteristics of urban development mirror several important transformations driven by global and sitespecific factors. These transformations can be defined in terms of an ongoing process of metropolization that concerns the geography of urban space, and implies a spatial distribution and polarization of functions, related to metropolitan connectivity infrastructures. This often produces polycentric spatial patterns of demographic settlement and economic activities within urban agglomerations. We ask: who drives these metropolization dynamics, and how, and, above all, in whose interests? Moreover, we inquire: what is the role of politics in this process? More specifically: what is the role of local government? And what we can say about the involvement of civil society? Are economic actors the key players in urban development? What kind of economic actors can actually play a strategic role in metropolization? What are the relationships between the different actors involved in the governing and governance of metropolitan development? In order to answer these questions we analyze a case study in Rome regarding a central urban area, interpreted as a main 'pole' of a planned new polycentric urban structure, where the redevelopment of a railway station led to a wider transformation and urban regeneration process, mainly aimed at promoting metropolization. A major European bank chose this location for its headquarters, which implied the construction

of huge buildings. At the same time, high social marginalization is evident in the area, while a range of civil society organizations are trying to interact with the local government in order to get social and environmental benefits out of the intervention. For deepening our case study, we examined institutional documents and carried out qualitative interviews with main stakeholders involved in the redevelopment project. In the Chapter we argue that neither the government at a local level (the District) nor local civil society organizations are able to influence decision-making and governance processes. On the other hand, the Metropolitan City Authority (Capital City of Rome) interacts with main economic actors involved in the transformation process (the International Bank, the Ferrovie dello Stato (FS) - National Railways, and local developers) within a development strategy that is metropolitan, which led to a concentration of benefits and a spreading of costs. The involvement of the local political authority and civil society organizations in decision-making appears as a sideline mechanism without effective impact on the forms and content of governance. © 2017 by Nova Science Publishers, Inc.

150. Moore, N.M. (2002) From indigenous industry to foreign finance: The changing face of Dublin Docklands, *Land Use Policy* 19(4): 325–331
- Over the last two decades, economic restructuring has re-shaped both society and space, resulting in changes to urban form and an explosion in the number of brownfield sites. Increased socio-economic exclusion and the emergence of dualisms has become characteristic of the most recent period of industrialisation and has many policy implications for brownfield regeneration. This paper documents the early redevelopment of Dublin Docklands, highlighting the weaknesses of legislation and the increased social exclusion that has emerged. It is argued that by adopting the principle of environmental justice and by explicitly agreeing to legally binding broad-based development objectives, economic, physical and social rejuvenation can be simultaneously and successfully achieved. © 2002 Elsevier Science Ltd. All rights reserved.
151. Morio, M., Schädler, S and Finkel, M (2013) Applying a multi-criteria genetic algorithm framework for brownfield reuse optimization: Improving redevelopment options based on stakeholder preferences, *Journal of Environmental Management*, 130: 331–346
- The reuse of underused or abandoned contaminated land, so-called brownfields, is increasingly seen as an important means for reducing the consumption of land and natural resources. Many existing decision support systems are not appropriate because they focus mainly on economic aspects, while neglecting sustainability issues. To fill this gap, we present a framework for spatially explicit, integrated planning and assessment of brownfield redevelopment options. A multi-criteria genetic algorithm allows us to determine optimal land use configurations with respect to assessment criteria and given constraints on the composition of land use classes, according to, e.g., stakeholder preferences. Assessment criteria include sustainability

indicators as well as economic aspects, including remediation costs and land value. The framework is applied to a case study of a former military site near Potsdam, Germany. Emphasis is placed on the trade-off between possibly conflicting objectives (e.g., economic goals versus the need for sustainable development in the regional context of the brownfield site), which may represent different perspectives of involved stakeholders. The economic analysis reveals the trade-off between the increase in land value due to reuse and the costs for remediation required to make reuse possible. We identify various reuse options, which perform similarly well although they exhibit different land use patterns. High-cost high-value options dominated by residential land use and low-cost low-value options with less sensitive land use types may perform equally well economically. The results of the integrated analysis show that the quantitative integration of sustainability may change optimal land use patterns considerably. © 2013 Elsevier Ltd.

152. Morphet, J. (2010). *Effective practice in spatial planning*, Routledge Taylor & Francis Group.

- After years of being regarded as a regulatory tool, spatial planning is now a key agent in delivering better places for the future. Dealing with the role of spatial planning in major change such as urban extensions or redevelopment, this book asks how it can deliver at the local level. Setting out the new local governance within which spatial planning now operates and identifying the requirements of successful delivery, this book also provides an introduction to project management approaches to spatial planning. It details what the rules are for spatial planning, the role of evidence and public involvement in delivering the local vision and how this works as part of coherent and consistent sub-regional approach. The conclusion is a forward look at what is likely to follow the effective creation of inspiring and successful places using spatial planning as a key tool. © 2011 Janice Morphet. All rights reserved.

153. Moss, T. (2003) Utilities, land-use change, and urban development: Brownfield sites as 'cold-spots' of infrastructure networks in Berlin, *Environment and Planning A* 35(3): 511-529

- This paper explores the interrelationships between urban land use, resource consumption, and utility service provision with a study of brownfield regeneration-from an infrastructure perspective. Drawing on recent research into the spatial strategies of utility companies, after liberalisation and privatisation, I identify disused industrial sites as 'cold-spots' of infrastructure systems where energy and water consumption has recently collapsed. Using a case study of Berlin I analyse first the challenges facing the city's three major utilities as a result of shifting patterns of resource consumption and overcapacity in parts of their networks. In the second part I examine the responses of the three utilities to these challenges in the context of recent institutional changes to infrastructure provision; exploring how the utilities are moving towards greater spatial differentiation in their

network management and what interest they have in brownfield regeneration

154. Murray, M. (2002) *Denver, Cities* 19(4): 283–294
 - Denver has emerged from the 1990s as a city region experiencing rapid growth. This has been fuelled by a vibrant local economy, which has adjusted itself from dependency on an earlier oil boom to greater reliance on the information and communications technology sector. The current planning and development challenges are dominated by the need to deal with urban sprawl and pressured transportation infrastructure. The contemporary restructuring of the physical fabric of Denver is marked by a progressive downtown revitalisation effort and a number of space extensive brownfield development projects. The interplay of state and local governments with commercial interests and citizens is a powerful dynamic in shaping these negative and positive outcomes. © 2002 Elsevier Science Ltd. All rights reserved.
155. Navratil, J. Picha, K, Martinat, S., Nathanail, P.C., Tureckova, K., Holesinska, A. (2018) Resident's preferences for urban brownfield revitalization: Insights from two Czech cities, *Land Use Policy* (76): 224–234
 - Residents' preferences are one of the factors in deciding how brownfields should be revitalized. We compare the views of residents in a city with many brownfields (Karviná) with those in a city with only few brownfields (České Budějovice). We assessed the preferences of residents for four global regeneration alternatives (refurbishment, demolition, open space, (re)development) in three different areas of a city (city centre, inner city, city outskirts). A one percent population sample of two post-socialistic cities in the Czech Republic, was used for the comparison. Positive preferences towards brownfield regeneration were confirmed. We found spatial differences in preferences between refurbishment and demolition of brownfields in each city area: demolition was preferred for inner city brownfields whereas refurbishment was preferred in the city centre and outskirts. Differences were also identified between the two cities: residents of the brownfield rich city preferred demolition, whereas residents of the city with few brownfields preferred refurbishment. Creating new public open space, for residents' recreation, was given a lower importance within the city centre and a higher significance in outskirts. With the support of a combined ANOVA model, significant differences in residents' preferences were found for distinct types of regeneration with regards to the cities' character, the location of brownfields within the city and residents' proximity. © 2018 Elsevier Ltd
156. Navratil, J.^a, Krejci, T, Martinat, S., Pasqualetti, M.J., Klusacek, P., Frantal, B., Tochackova, K (2018) Brownfields do not “only live twice”: The possibilities for heritage preservation and the enlargement of leisure time activities in Brno, the Czech Republic, *Cities*, 74: 52 – 63
 - Central Europe is replete with legacy contaminated sites, commonly called “brownfields”. The question is what can be done to remediate them and make them again safe and useful to society. This question is addressed in post-socialistic city of Brno, the Czech Republic. Our

research assesses public perceptions of such sites that are currently utilized for the leisure time activities. Special attention is paid to public views of heritage preservation as an option for brownfield regeneration. The principal aim of the paper is to measure public support of heritage preservation through the conversion of brownfields to leisure activities and tourism. Data were gathered by means of the questionnaire survey with visitors of four brownfields currently being used for leisure time activities (n = 130). It was revealed that the awareness of the visitors of the issue of brownfield regeneration is very low, and that importantly affects the perception of heritage preservation of individual sites. Further, the opinions of the respondents are significantly influenced by the local contexts of individual brownfields (predominantly by the situation and the technical state). However, it might be stated that in locations where the historical state of building has already been repaired, historical heritage is perceived more positively. © 2017 Elsevier Ltd

157. Newton, P., et al. (2017). "Becoming urban: Exploring the transformative capacity for a suburban-to-urban transition in Australia's low-density cities." *Sustainability (Switzerland)* 9(10).

- Metropolitan planning and development of Australia's cities for much of the past 75 years has been strongly influenced by what could be termed the "North American model" of low-density, car-dependent suburban development on greenfield master-planned housing estates. The negative social, economic and environmental consequences associated with perpetuating this low-density greenfield model were becoming evident by the 1990s and "compact city" policies began to feature, albeit in piecemeal fashion, in the long-term metropolitan planning strategies of the major capital cities in Australia. This compact city transition, from "suburban" to "urban" (i.e., from a low-density urban form dominated by detached housing with its own surrounding private space to one where there is a significant presence of medium-density and apartment accommodation), remains a challenging work in progress, as reflected in a rapid succession of metropolitan planning strategies-and reviews-for cities such as Melbourne and Sydney since the beginning of this century. Urban infill targets of 70% for new housing construction in these cities now represents a major break with the past and a challenge to the major stakeholders involved in urban development in Australia: state and local government, the property development industry and residents of the established, ageing "greyfield" suburbs that are a focus for intensified redevelopment. This paper comprises four parts. The introduction identifies the multiple challenges confronting 21st-century urban development in Australia. The second part frames transitions required for a regenerative retrofitting of the established suburbs of its major cities, with particular focus on the greyfields. The third section extends transition management research into an examination of the transformative capacity of each of the four key stakeholder groups that are central to achieving such a regenerative transition. To date, the greatest resistance to more intensive redevelopment has come

from urban residents. The final section of the paper focuses on this stakeholder group, and draws on data from a major household survey that examines the attitudes of resident property owners in the middle suburbs of Sydney and Melbourne to neighborhood change and medium-density housing development. © 2017 by the authors.

158. Newton, P. and Glackin, S. (2014), Understanding Infill: Towards New Policy and Practice for Urban Regeneration in the Established Suburbs of Australia's Cities, *Urban Policy and Research* 32(2): 121–143
- A major challenge for urban Australia and its fast growing cities in particular is the provision of an adequate supply of appropriately located, affordable and sustainable housing across a range of dwelling types. A related challenge involves attempts by the metropolitan planning agencies in the capital cities to restrict residential sprawl and deliver more compact cities. Residential infill in the established suburbs has emerged as one of the principal urban planning policies designed to address this dual challenge. Infill targets, typically in the 50-70 per cent range, are now integral to all capital city planning strategies. This article examines the current pattern of infill housing development in Melbourne, Australia's second largest and fastest growing capital city. It highlights the existence of two infill segments-brownfields and greyfields-each with distinctive patterns of development that need to be better understood if urban regeneration is to figure significantly in delivering more liveable and sustainable cities. Current urban policies, programmes and practices are lacking an effective response to redevelopment of the greyfields. © 2014 © 2014 Editorial Board, *Urban Policy and Research*.
159. Newton, P.W. (2010) Beyond greenfield and brownfield: The challenge of regenerating Australia's greyfield suburbs, *Built Environment* 36(1): 81–104
- A transition to more sustainable cities in Australia will require much greater focus on greyfield redevelopment than previously. With the multiple challenges facing city planning at the beginning of the twenty-first century - accommodating rapid population growth linked to immigration, attempting more intensive urban development, the need for climate change adaptation and mitigation strategies, and understanding what is required for cities to become more resilient in the face of local and global shocks to their economies and communities - a path of least resistance has seen most recent planning and urban development activity centre on greenfield and brownfield arenas. This paper focuses on the prospects for more sustainable patterns of greyfield redevelopment in Australian cities, with particular reference to Melbourne. Both the Melbourne 2030 and the Melbourne @ 5 million strategies have failed to articulate processes capable of increasing the capacity of existing, ageing, occupied suburban areas - the greyfields - to accommodate projected growth. Greyfield redevelopment at precinct (or neighbourhood) scale offers the potential for jointly transitioning urban housing, energy and water systems - and their residential communities- to a more sustainable future.

160. Nguo, H. and L. Armitage (2008). Building better suburbs: Design controls in master planned communities: - An Australian perspective.
- Master planned communities in Australia are an increasingly popular form of residential development responding to localised pressure of population increase. They are characterised (Minnery and Bajracharya, 1999; Gwyther, 2005) as private sector driven, large scale, integrated housing developments located on greenfield sites, most frequently on the outskirts of major metropolitan areas. Whilst the conception, planning and provision of such communities lies in the hands of the major stakeholders - developers and state and local government - the provision of the unit of consumption, the dwelling, is the purview of housebuilders and also, at the level of final consumption, the concern of an individual purchaser which is most often a family. Whilst stakeholders at the statutory level may have principled concern about three key dimensions of governance mechanisms, housing market context and the nature of community as discussed in Bajracharya et al. (2007) the views of the residents are less well specified. The objective of this paper is to report upon an original survey of residents of three separate communities in the northern suburbs of Melbourne which investigated respondents' satisfaction in respect of the implementation of design controls within and between their communities. In addition, the research sought to define common design control measures and explore the reasons for their use and role in effecting the outcome of master planned residential development. The paper provides a review and discussion of the findings which offers some insights into the residents' satisfaction with the design controls and their effectiveness in achieving the developers' intentions. Whilst residents' degree of support varied between developments, it was found that controls which exhibited greater clarity facilitated a more certain outcome; and the more stringent the controls, the more positive was the impact on property value with the greater conformity of design being viewed as a measure of quality which rewarded residents with a better return on their investment than that achieved in less strictly controlled developments. © RICS.
161. Nogues, S. and Arroyo, NL, (2016), Alternative approach to prioritization of brownfield reclamation attending to urban development potentialities: Case study in a depressed industrial district in Northern Spain, *Journal of Urban Planning and Development*, 142(1): Article number 05015002
- Site selection is a fundamental part of the decision-making process when attempting to reclaim derelict land and brownfield sites in any specific area. A geographic information system (GIS)-based multicriteria decision analysis was conducted to prioritize brownfield redevelopment in a depressed post-industrial district in northern Spain, following site redevelopment criteria of adequacy of the various sites to putative urban reuses, attending to physical, environmental, urban, and legal factors. Four main possible uses were defined, i.e., residential, industrial, recreational, and infrastructural, and the various

factors were weighed according to their relative importance for each of these types of development. The results show that the primary factor conditioning brownfield redevelopment in the study area is the availability of urban facilities and proximity of the derelict patches to urbanized areas where the main infrastructures and services are guaranteed. They also highlight the deep impact that certain activities such as mining and uncontrolled chemical waste discharges may cause on the areas affected by them, which might be irreversibly condemned to abandonment due to the high costs and technical difficulties involved in restoring them. Thus, site location with respect to urban facilities and previous activities seem to be the two main factors conditioning the suitability of brownfields for redevelopment in the study area. © 2015 American Society of Civil Engineers.

162. Nootboom, S. G. and C. J. A. M. Termeer (2013). "Strategies of complexity leadership in governance systems." *International Review of Public Administration* 18(1): 25-40.
 - In complex governance systems, innovations may emerge, not controlled by a single leader, but enabled by many. We discuss how these leaders are embedded in networks and which strategies they use. The theoretical framework is based on Complexity Leadership Theory. We conducted participatory observation in two Dutch case studies: a regional agricultural development in the Venlo region and an urban redevelopment in the city of Amersfoort. These studies reveal leadership strategies creating conditions that are favorable for the emergence of complex innovations. © 2013 Taylor & Francis Group, LLC. All rights reserved.
163. Novy, A., et al. (2001). "The end of red Vienna recent ruptures and continuities in urban governance." *European Urban and Regional Studies* 8(2): 131-144.
 - After decades of corporatist urban governance dominated by social democracy, Vienna is undergoing a process of economic and political restructuring. This process is expressed physically in large urban development projects, Donau City being the most important. Donau City is a large real estate project on the left bank of the Danube, based on public-private partnership. Due to the liberalization of the housing market, new private actors are increasingly important, influencing decision-making in the Donau City project in urban planning in general, growing interest in real estate investment has resulted in new planning procedures incorrectly labelled as bottom-up. In fact, this is a fragmented, privatized, opaque and ad hoc form of urban governance accompanied by a new elitist hierarchy formed by leaders of the city's administration, business and academic worlds. This new, unaccountable elite has elaborated a strategic plan for Vienna with little reference to the citizenry. Therefore, the new liberal form of governance goes hand in hand with important continuities concerning co-optation, exclusion and conflict avoidance. The article ends by stressing the importance of alternative political projects that

aim at participatory democracy overcoming deep-rooted authoritarian structures.

164. Nyseth, T. (2011). "The Tromsø Experiment: Opening up for the unknown." *Town Planning Review* 82(5): 573-593.
- One of the most essential challenges urban governance is facing today is the question of how inclusive urban citizenship should be. There is a lack of efficient democratic participation in the strategies of urban renewal in most cities, which raises the question whether democratic governance can be maintained at the urban level. Urban planning needs to be open to new possibilities, different perspectives and even conflict and should debate the plurality of future developments, before decisions are taken. Pro-active, strategic planning that acknowledges urban complexities is called for. This potential was activated in the 'Tromsø Experiment', enhanced through a network of 'outsiders', which highlighted the importance of transparency, framing of discourses and staging of events in such experiments.
165. Oakley, S (2014) A Lefebvrian Analysis of Redeveloping Derelict Urban Docklands for High-Density Consumption Living, Australia, *Housing Studies* 29(2): 235 – 250
- In Australia, large-scale residentially driven waterfront redevelopments have taken on a new urgency and their development has increasingly become politically, socially and economically significant as urban populations have burgeoned and governments have sought ways to house, employ and ensure quality urban environments. Through the lens of Henri Lefebvre's spatial schema, high-density transit-oriented urbanism in current planning orthodoxy reveals tensions and inconsistency when applied to the retrofitting of derelict urban docklands. Drawing specifically on the Port Adelaide waterfront experience, significant policy failings are evident in terms of the planning, urban design and residential densification aspirations associated with this type of development. Because waterfront redevelopments are promoted as supporting large urban populations, this paper examines the capacity of these projects to provide planning processes that can deliver equitable distributional outcomes in terms of environmentally and socially sustainable spaces of mixed housing tenure, amenity and quality urban design. © 2013 Taylor & Francis
166. Oakley, S. (2012). High-rise, high-density urban waterfront redevelopment: A metropolitan policy panacea or placebo in recreating sustainable 21st century cities?
- Waterfront redevelopments have the potential to provide residential opportunities for thousands of Australians in what could be described as a novel urban experiment - high rise, near city living with governance and planning arrangements unlike Master Planned Estates (MPEs). For the Federal Government, newly concerned with issues of sustainability, liveability and quality of life, these sites assume importance because of their scale, while for State governments waterfront developments is a centre piece of

metropolitan promotion and part of an overall densification agenda. Waterfront redevelopment is a social and spatial experiment. In the 21st century these projects have taken on a new urgency and their development has increasingly become politically, socially and economically significant as urban populations have burgeoned, and governments have sought ways to house, employ and ensure a quality environment in already congested inner-middle urban areas, some of which are experiencing increasing land costs and housing market stress. As waterfront redevelopments are promoted as supporting large urban populations this paper examines the capacity of these projects to provide planning processes that can deliver equitable distributional outcomes in terms of environmentally and socially sustainable spaces of mixed housing tenure, amenity and quality urban design. Drawing on the Port Adelaide waterfront as a case study this paper provides a critical evaluation of the costs and benefits in terms of its integration into the planning and development strategy for metropolitan Adelaide.

167. Oakley, S. (2011). "Re-imagining city waterfronts: A comparative analysis of governing renewal in Adelaide, Darwin and Melbourne." *Urban Policy and Research* 29(3): 221-238.
- Urban waterfront regeneration is one of the largest changes to the structure of Australian and many world cities over the last two decades. There is no comparative research which evaluates their governing with particular attention to the relationship and responsibility of quasipublic agencies and local government. This study advances the competitive-city paradigm from a focus on global cities to an examination of inter-city urban competition between differently located cities in the urban hierarchy by comparing waterfront renewal projects located in Adelaide, Darwin and Melbourne. Through interview, policy and document analysis, the article offers preliminary insights on current and emergent governance arrangements involved in urban waterfront renewal. In an era of increasing inter-urban competition, the study reveals hybrid forms of urban governance are driving the planning and delivery of these three waterfront renewal projects. Further, there exists a 'knotty' tension between these models of urban governance and the capacity for meaningful consultation and participation between governments. © 2011 Editorial Board.
168. Oakley, S. (2007). "The role of urban governance in re-constructing place, economic function and social relations in urban waterfront regeneration: The case of Port Adelaide, South Australia." *Space and Polity* 11(3): 279-295.
- The Port Adelaide waterfront is symbolic of a distinctive form of entrepreneurial urban governance that emphasises specific forms of capital accumulation. As in waterfront projects elsewhere in Australia and overseas, depicting Port Adelaide as an 'urban problem' has been critical in legitimating the public-private market-based approach to regenerating the waterfront site. This paper outlines how the ascendancy of urban governance in Australian political sensibility is coinciding with and facilitating a particular urban form in waterfront

developments. This involves transforming the Port's disused industrial and maritime landscape from a site of production to one of consumption. This urban makeover signifies a radical reconstitution of place identity, economic function and social relations. This paper also investigates the impact on the pre-existing social structure, built form and economic activity base of the location and suggests that the potential for this significant waterfront project is not confined to the re-imagining of the discursive identity of the place but extends to meeting wider institutional metropolitan and regional planning objectives.

169. Oliveira, E., et al. (2018). "Can strategic spatial planning contribute to land degradation reduction in urban regions? State of the art and future research." *Sustainability (Switzerland)* 10(4).
- Land degradation is becoming a serious environmental issue threatening fertile agricultural soils and other natural resources. There are many driving forces behind land degradation. The expansion of artificial surfaces due to various economic activities, such as housing, industry, and transport infrastructure, known as soil sealing, constitutes one of the most intensive forms of land degradation in urban regions. Measures to halt and reverse land degradation require both strong land-use management policies, as well as effective spatial planning mechanisms. In this regard, strategic spatial planning has been increasingly practised in many urban regions worldwide, as a means to achieve sustainable land-use patterns and to guide the location of development and physical infrastructures. It is reasonable, therefore, to expect that strategic spatial planning can counteract the outlined undesired land degradation effects, specifically those resulting from soil sealing. In this paper, we review strategic spatial planning literature published between 1992 and 2017. The focus is on the phenomena causing land degradation that are addressed by strategic spatial planning literature, as well as on the mechanisms describing the role of strategic spatial planning in land degradation reduction. Results show that sustainable development and environmental concerns have become core objectives of strategic planning in recent years, yet references to the drivers of land degradation are rare. The mechanisms that exist are mainly intended to address environmental issues in general, and are not aimed at reducing particular forms of land degradation. The paper concludes by sketching future research directions, intended to support strategic spatial planning and land-use policymaking related to coping with the global phenomenon of land degradation. © 2018 by the authors.
170. Oliveira, E. and A. M. Hersperger (2018). "Governance arrangements, funding mechanisms and power configurations in current practices of strategic spatial plan implementation." *Land Use Policy* 76: 623-633.
- Implementing strategic spatial plans is a complex task. The process involves strategy formation, institutional capacity building, funding mechanism establishment and governance arrangements, which take shape within complex power configurations. Based on empirical evidence gathered by interviewing regional planning experts, this

paper focuses on the role of governance arrangements and funding mechanisms in current practices of strategic plan implementation in 14 European urban regions. This investigation was completed bearing in mind power configurations, which shape and frame governance arrangements and funding mechanism in planning practice. A cross-case comparison provides evidence that, among the governance arrangements influencing plan implementation, negotiation and interest groups involvement are pivotal. Negotiation involves private interest groups, such as real estate agencies and environmental non-governmental organizations. The paper shows that in some case studies private interest groups have a substantial bargaining power to negotiate, for example, the development of a new housing settlement or a retail facility, while other groups struggle to safeguard natural areas. It is also during negotiations that plan implementation intentions are prioritized, strategic urban projects are formulated and funding mechanisms are established. The paper demonstrates that to truly grasp plan implementation praxis it is necessary to go beyond multi-actor involvement and inter-scalar government cooperation. It is necessary to scrutinize the funding sources, investigate who wins and who loses while negotiations are happening, and how plan implementation decisions are actually made. © 2018 The Authors

171. Page, S. (1993). "Regenerating Wellington's waterfront." *Town & Country Planning* 62(1-2): 29-31.
- The article details the processes involved in the redevelopment of the waterfront area of Wellington, New Zealand. A partnership was set up between the city council and the harbour board, who established a statutory authority and a special development zone. The article examines the planning and management issues raised by the scheme in the light of the impact of ideas from the political right in such schemes. As a result the redevelopment has tended to be market led. The article examines the role of private sector investment and links it to recent experiences in London, Sydney and North America. It questions the priorities of such a scheme. -S.Tanner
172. Padiaditi, K.^a, Doick, K.J.^b, Moffat, A.J.^b (2010) Monitoring and evaluation practice for brownfield, regeneration to greenspace initiatives. A meta-evaluation of assessment and monitoring tools, *Landscape and Urban Planning* 97(1): 22-36
- Brownfield regeneration and greenspace creation are increasingly promoted by national and EU policy in support of sustainable development principles. There is increasing pressure for the evaluation of brownfield greening initiatives because of their cost, competing funding priorities and evidence of unsustainable practice. Assessment of sustainability requires monitoring and evaluation throughout the life cycle of a project and requires commitment from the many different bodies involved. This paper examines whether tools are available to enable brownfield greening stakeholders to carry out sustainability evaluation for brownfield regenerated to greenspace. To this end, we present the criteria that an 'ideal' brownfield greening

sustainability monitoring and evaluation tool should fulfil, based on a study of stakeholder needs and the Bellagio Principles. The proposed criteria are used to evaluate 28 tools considered potentially relevant to brownfield regenerated greenspace. For each tool, the research identified limitations to its use for evaluation of brownfield regenerated greenspace sustainability. Recommendations are made for measures required for the greater adoption of monitoring and evaluation practice as well as directions for tool development. © 2010 .

173. Pediaditi, K, Wehrmeyer, W., Chenoweth, J. (2005) Monitoring the sustainability of brownfield redevelopment projects: The Redevelopment Assessment Framework, *Land Contamination and Reclamation* 13(2): 173–183
- Redevelopment of brownfield land is regarded as an essential component of the achievement of a sustainable urban regeneration, and is thus enshrined in a number of key urban policy frameworks (DETR 2000; ODPM 2004a). Brownfield redevelopment is considered to be de facto sustainable and presented as a headline sustainability indicator (DETR 1999). However, many examples exist where redevelopment of brownfield sites has not been sustainable, as it failed to assess the environmental, social, economic and physical impacts holistically, as well as to consider the long-term impacts of brownfield redevelopment projects (BRPs) in general. It is therefore important to develop and implement a Redevelopment Assessment Framework (RAF), that addresses sustainability throughout a site's life cycle of land use. Such a framework has been developed, and is discussed here. The RAF utilises sustainability indicators, while taking into account relevant existing UK planning evaluation processes and other sources of information, thus making it applicable in practice. The RAF embodies a participatory approach which offers greater communication and understanding between relevant stakeholders, and therefore also offers educational and communications benefits. A description of the RAF, a critical analysis of its intended use, and a discussion of benefits and potential barriers, are provided below. © 2005 EPP Publications Ltd.
174. Perić, A (2016) Institutional Cooperation in the Brownfield Regeneration Process: Experiences from Central and Eastern European Countries, *European Spatial Research and Policy* 23(1): 21-46
- The topic of brownfield regeneration has been the focus of planning debate for years. However, the aspect of institutional cooperation and strengthening the institutional capacity in order to cope with a complex task of brownfield regeneration is considered a challenge. This is particularly true for the post-socialist countries and, hence, the Czech Republic, Hungary and Serbia are chosen as the case studies of this research. By implementing a concise survey of both the institutions and policies related to the topic of brownfield regeneration in the selected countries, the research aims at determining the form, extent and nature of collaboration between different sectors, disciplines, and institutions. Based on such insights, it is finally possible to provide the

recommendations for more effective institutional design within specific political and socio-economic context. © 2016 European Spatial Research and Policy

175. Perić, A. (2013) The review of planning practice in brownfield regeneration - Some European experiences, *Journal of Applied Engineering Science* 11(1): 1-8

- The research subject is the analysis of the possible ways to achieve stakeholder compliance in the brownfield regeneration process. In a narrow sense, the treatment of brownfield sites within different planning systems is considered. Each of the selected planning systems is described through the institutional structure as well as the regulative framework. The aim of the paper is to show urban planning mechanisms that are used for the establishment of collaboration between different stakeholders involved in brownfield regeneration. In the very beginning, a brief history of spatial development is given. A special emphasis is on the current trends in the brownfield regeneration. The central part of the paper deals with the overview of selected examples in terms of brownfield regeneration. It is followed by the overview of the institutional aspect within the planning system in Switzerland and Austria. The determination of the responsible institutions for the brownfield regeneration process is of particular importance. Also, it is important to show the basic documents dealing with the above-mentioned topics. However, the focus of research concerns the collaborative procedures to achieve the successful regeneration of brownfields. Those results stem from the analysis of the brownfield sites examples. Namely, the first example relates to the regeneration of wood-industry complex in the Swiss town of Solothurn, while the second case indicates the regeneration of cable and wire factory in Vienna. The final section of the paper systemizes the experiences from the developed countries which provide a possible formulation of general brownfield regeneration model to be applied within different contexts.

176. Peric, A and Maruna, M (2013) Brownfield redevelopment versus greenfield investment: Is Serbia on the way to integrated land management? *Journal of Urban Regeneration and Renewal*, 6(1): 79–90

- The paper discusses the possibilities and practices of brownfield and greenfield investment within the Serbian urban development framework. First, a broader context of brownfield regeneration and greenfield investment in transition countries is described. After this introduction, the current urban tendencies and conditions of urban transformation in Serbia are shown. The central part of the paper illustrates a comparative analysis of both positive and negative effects of brownfield and greenfield development. The main parameters for the analysis are determined according to the principal aspects of sustainable development - economic, social, and environmental. An example used to explain the benefits of greenfield investment is that of the Ecka industrial site in Zrenjanin, Serbia. The analysis presents a critical evaluation of the current urban tendencies, and aims to estimate the extent of integration between the development

processes. The last part of the paper draws out implications for similar complex urban issues. © Henry Stewart Publications.

177. Pfeffer, K., et al. (2013). "Participatory spatial knowledge management tools: Empowerment and upscaling or exclusion?" *Information Communication and Society* 16(2): 258-285.
- Different types of spatial knowledge (expert, sectoral, tacit and community) are strategic resources in urban planning and management. Participatory spatial knowledge management is a major method for eliciting various types of knowledge, providing a platform for knowledge integration and informing local action and public policy. Knowledge types linked to a specific geographical locality can be integrated through geographical information systems. Recent developments in geographical information and communication technology (geolCT) have extended the opportunities for participatory spatial knowledge production, use and exchange. However, data reliability of user-generated content, social exclusion due to dependence on technology and the interpretation and implications of digital maps are major concerns. The challenge is how to integrate and utilize multiple knowledge sources for improving urban management and governance. This paper integrates the literature on knowledge types and knowledge production processes with available geolCT tools for the production, use and exchange of knowledge sources and applies it to examples from Asia, Africa and Latin America. From this review, we provide a heuristic framework for assessing the extent to which participatory spatial knowledge management tools can be instrumental on several fronts. We argue that technological developments of knowledge production have not fully addressed important issues related to accountability, empowerment, control and use of knowledge. Moreover, these developments may foster social exclusion, which could detract from the benefits of participatory spatial knowledge management in the context of urban sustainability. © 2013 Copyright Taylor and Francis Group, LLC.
178. Pinch, P. L. (1995). "Governing urban finance: changing budgetary strategies in British local government." *Environment & Planning A* 27(6): 965-983.
- The restructuring of local government finance in Britain is increasingly being viewed as part and parcel of a broader transformation in the capacity for local welfare provision and scope of local governance. The ways in which local authority budgetary processes and strategies have been affected by these changes are examined. It is suggested that, despite strong elements of continuity, significant new developments in local budgeting behaviour are emerging. However, such changes are not universal. The paper incorporates a comparative case study analysis of two local authorities in central southern England in order to illustrate the geographically uneven way in which local circumstances have mediated the experiences of and reactions to increasing fiscal austerity. –Author

179. Pizzol, L., Zabeo, A., Klusáček, P., Giubilato, E., Critto, A., Frantál, B., Martinát, S., Kunc, J., Osman, R. and Bartke, S. Timbre Brownfield Prioritization Tool to support effective brownfield regeneration, *Journal of Environmental Management* 166; 178–192.
- In the last decade, the regeneration of derelict or underused sites, fully or partly located in urban areas (or so called "brownfields"), has become more common, since free developable land (or so called "greenfields") has more and more become a scarce and, hence, more expensive resource, especially in densely populated areas. Although the regeneration of brownfield sites can offer development potentials, the complexity of these sites requires considerable efforts to successfully complete their revitalization projects and the proper selection of promising sites is a pre-requisite to efficiently allocate the limited financial resources. The identification and analysis of success factors for brownfield sites regeneration can support investors and decision makers in selecting those sites which are the most advantageous for successful regeneration. The objective of this paper is to present the Timbre Brownfield Prioritization Tool (TBPT), developed as a web-based solution to assist stakeholders responsible for wider territories or clusters of brownfield sites (portfolios) to identify which brownfield sites should be preferably considered for redevelopment or further investigation. The prioritization approach is based on a set of success factors properly identified through a systematic stakeholder engagement procedure. Within the TBPT these success factors are integrated by means of a Multi Criteria Decision Analysis (MCDA) methodology, which includes stakeholders' requalification objectives and perspectives related to the brownfield regeneration process and takes into account the three pillars of sustainability (economic, social and environmental dimensions). The tool has been applied to the South Moravia case study (Czech Republic), considering two different requalification objectives identified by local stakeholders, namely the selection of suitable locations for the development of a shopping centre and a solar power plant, respectively. The application of the TBPT to the case study showed that it is flexible and easy to adapt to different local contexts, allowing the assessors to introduce locally relevant parameters identified according to their expertise and considering the availability of local data. © 2015 Elsevier Ltd.
180. Raco, M.^a, Henderson, S.^b (2006) Sustainable urban planning and the brownfield development process in the United Kingdom: Lessons from the Thames Gateway, *Local Environment*, 11(5): 499–513
- Over recent decades urban and regional development agendas in the United Kingdom have become dominated by the discourses of sustainable development, holistic regeneration and community capacity-building. It is in this context that brownfield development has emerged as a core feature in strategies to regenerate urban areas. Bringing brownfields back into use tends to be, a priori, presented as a 'good thing' that will have broader economic, environmental and

social benefits. This paper assesses the role that brownfield development plays in urban and regional policy agendas in the UK. It begins by identifying the rationales for, and concerns associated with, the brownfield development process in the UK, before discussing the trajectories of policy under the New Labour government since 1997. It argues that at present too much is expected from brownfield-led regeneration programmes and that wider benefits will only accrue if these programmes are embedded within a wider and more comprehensive set of development projects and policy agendas

181. Raco, M. (2003) Assessing the discourses and practices of urban regeneration in a growing region, *Geoforum* 34(1): 37-55
- Most research on the discourses and practices of urban regeneration in the UK has examined case studies located in areas of relative socio-economic distress. Less research has been undertaken on regeneration projects and agendas in areas characterised by strong economic growth. Yet, it is in such places that some of the best examples of the discourses, practices and impacts of contemporary urban regeneration can be found. In some areas of high demand regeneration projects have used inner urban brownfield sites as locations for new investment. With the New Labour government's urban policy agendas targeting similar forms of regeneration, an examination of completed or on-going schemes is timely and relevant to debates over the direction that policy should take. This paper, drawing on a study of urban regeneration in one of England's fastest growing towns, Reading in Berkshire, examines the discourses, practices and impacts of redevelopment schemes during the 1990s and 2000s. Reading's experiences have received national attention and have been hailed as a model for other urban areas to follow. The research documents the discursive and concrete aspects of local regeneration and examines the ways in which specific priorities and defined problems have come to dominate agendas. Collectively, the study argues that market-driven objectives come to dominate regeneration agendas, even in areas of strong demand where development agencies wield a relatively high degree of influence. Such regeneration plays a symbolic and practical role in creating new forms of exclusion and interpretations of place. © 2003 Elsevier Science Ltd. All rights reserved.
182. Rădulescu, C.M; Ştefan, O, Rădulescu, GMT, Rădulescu, ATGM, and Rădulescu, MVGM, (2016), Management of stakeholders in urban regeneration projects. Case study: Baia-Mare, Transylvania, *Sustainability*, 8(3): Article number 238.
- The process of regeneration of abandoned areas or deteriorated structures in the cities of Romania has become a strategy of urban-integrated development. Conversions and/or regeneration of facilities in the form of assets, with different destinations, are part of the new trend of urban regeneration and a strategy used to attract investment capital. The disappearance of mining industry sites in Maramures County, Romania, has allowed the expansion and planning of new

spaces for public use and/or semipublic, and most cities have opened new development perspectives. The study is based on empirical research conducted on the brownfields of Baia-Mare City. This research investigates how stakeholders of an urban regeneration project can be more actively involved in the decision-making processes with regard to the strategic elements of the renewal project of Cuprom, as a former mining industry area. This research contributes to the development of the investigation of new types of knowledge of stakeholder analysis and improves the available practices for stakeholder salience. Social networks created and consolidated by stakeholders of an urban regeneration project are the object of analysis, evaluation, and monitoring of the equilibrium between project management and grant of resources and capital. This paper studies the salience of stakeholders of the SEPA-CUPROM project from Baia-Mare using the social networking approach. Visualization by graphical methods of social networking analysis is a useful instrument in the decision-making process of brownfield projects as part of sustainable strategies in Romania. © 2016 by the authors.

183. Ramseur, J.L. (2011) The environmental protection agency's brownfields program: Scope, authorities and implementation, in Contamination Cleanup: Superfund Background and Issues April 01, 2011, Pages 71-76 (book chapter)
- The federal role in assisting states and communities to clean up brownfield sites - real property affected by the potential presence of environmental contamination -has been an ongoing issue for more than a decade. With the enactment of the Small Business Liability Relief and Brownfields Revitalization Act (P.L. 107-118) in 2002, Congress provided specific authority for EPA to address brownfield sites. In contrast to Superfund sites, environmental contamination present at brownfield sites is typically less of a risk to human health. With the primary motivation to aid cleanup efforts, the 2002 statute, among other things, authorized two grant programs: (1) a competitive grant program to address specific sites; and (2) a non-competitive grant program to support state cleanup programs. While there appears to be broad consensus that a federal role in the cleanup and redevelopment of brownfields is desirable, issues regarding the degree of financial assistance and overall program effectiveness have been raised. The federal role in assisting states and communities to clean up brownfields for productive use has been an ongoing issue for more than a decade. As defined by statute, brownfield sites are "real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant" (emphasis added).¹ The Environmental Protection Agency (EPA) addresses environmental contamination primarily through the Superfund and Brownfields Programs.² Although EPA's Superfund and Brownfields Programs are related, the programs are different in their objectives and the sites

they address. The Superfund Program and its federal funding generally cover only the sites with the highest levels of contamination or those that present immediate risks. In contrast, EPA's Brownfields Program assists communities with the cleanup of abandoned, idled, or underutilized commercial and industrial properties. EPA estimates that there are more than 450,000 brownfields sites throughout the country.³ As the brownfields definition indicates, whether contamination is present at all of these sites is uncertain. The environmental contamination at a brownfield site, if it exists at all, is not as serious or threatening as the contamination at Superfund sites.⁴ Often, the mere perception of environmental contamination may hinder site reuse, because interested parties may be concerned they would face cleanup responsibilities. Thus, a primary objective of the Brownfields Program is site assessment. This report describes the scope and purpose of EPA's Brownfields Program, reviews appropriation levels for the program, and highlights considerations for policymakers. © 2011 by Nova Science Publishers, Inc. All rights reserved.

184. Rizzo, E., Pizzol, L., Zabeo, A., Giubilato, E., Critto, A. Cosmo, L., Marcomini, A. (2018) An Information System for Brownfield Regeneration: providing customised information according to stakeholders' characteristics and needs, *Journal of Environmental Management* 217: 144-156
- In the EU brownfield presence is still considered a widespread problem. Even though, in the last decades, many research projects and initiatives developed a wealth of methods, guidelines, tools and technologies aimed at supporting brownfield regeneration. However, this variety of products had and still has a limited practical impact on brownfield revitalisation success, because they are not used in their entire potential due to their scarce visibility. Also, another problem that stakeholders face is finding customised information. To overcome this non-visibility and not-sufficient customisation of information, the Information System for Brownfield Regeneration (ISBR) has been developed, based on Artificial Neural Networks, which allows understanding stakeholders' information needs by providing tailored information. The ISBR has been tested by stakeholders from the EU project TIMBRE case studies, located in the Czech Republic, Germany, Poland and Romania. Data gained during tests allowed to understand stakeholders' information needs. Overall, stakeholders showed to be concerned first on remediation aspects, then on benchmarking information, which are valuable to improve practices in the complex field of brownfield regeneration, and then on the relatively new issue of sustainability applied to brownfield regeneration and remediation. Mature markets confirmed their interest for remediation-related aspects, highlighting the central role that risk assessment plays in the process. Emerging markets showed to seek information and tools for strategic and planning issues, like brownfield inventories and georeferenced data sets. Results led to conclude that a new improved platform, combining the ISBR functionalities with geo-

referenced ones, would be useful and could represent a further research application. © 2018 Elsevier Ltd

185. Rizzo, E. Pesce, M.^a, Pizzol, L.^a, Alexandrescu., F.M.^{a,b}, Giubilato, E.^a, Critto, A.^a, Marcomini, A., Bartke, S.^b (2015) Brownfield regeneration in Europe: Identifying stakeholder perceptions, concerns, attitudes and information needs, *Land Use Policy* 48(1): 437–453

- Brownfield areas are a major concern in Europe because they are often extensive, persistent in time and compromise stakeholders' interests. Moreover, due to their complex nature, from the decision-making point of view, the regeneration of brownfields is a challenging problem requiring the involvement of the whole range of stakeholders. Many studies, projects and organisations have recognised the importance of stakeholder involvement and have promoted public participation. However, comprehensive studies providing an overview of stakeholders' perceptions, concerns, attitudes and information needs when dealing with brownfield regeneration are still missing. This paper presents and discusses a participatory methodology applied to stakeholders from five European countries to fill this research gap, to develop a system to support the categorisation of the needed information and to support the understanding of which typology of information is the most relevant for specific categories of stakeholders also in relation with their concerns. The engagement process consists of five phases: (i) planning and preparatory work, (ii) identification of stakeholder categories, (iii) engagement activities (e.g. focus groups and workshops), (iv) submission of a questionnaire and (v) provision of feedback to the involved stakeholders. Thanks to this process, appropriate stakeholders have been identified as well as their perceptions, concerns, attitudes and information needs. Stakeholders' perceptions proved to be different according to the country: German and Italian stakeholders perceive brownfields as complex systems, where several issues need to be addressed, while Romanian stakeholders consider contamination as almost the only issue to be addressed; Czech and Polish stakeholders address an intermediate number of issues. Attitudes and concerns seemed to be quite similar between countries. As far as information needs are concerned, similarities between some groups of stakeholders have been noticed: site owners and problem holders are primarily interested in information on planning and financing, while authorities and services providers are interested in more technical aspects like investigation, planning and risk assessment. Some outstanding outcomes emerged from the scientific community and research group, which showed an interest for remediation strategies and options and socio-economic aspects. The research outcomes allowed to create a knowledge base for the future development of tailored and customised approaches and tools for stakeholders working in the brownfield regeneration field. © 2015 Elsevier Ltd.

186. Robertson, H.G. (2001) Legislative innovation in state brownfields redevelopment programs, *Journal of Environmental Law and Litigation*, 16(1): 1-80
- This article examines state legislative and administrative efforts to redevelop urban brownfield land by reducing the environment barriers to redevelopment. I have argued in the past that, despite the best efforts and best intentions of citizens, legislators, and bureaucrats, real success will elude state brownfields programs, in part, because they tend to ignore the non-environmental factors that present significant barriers to redevelopment especially in urban areas. Here, I argue that some of the legislative innovations in those same state brownfields programs, although created to facilitate the programs' goals, may be risky or unwise without some alterations. This Article analyzes two important innovations in states' efforts to encourage brownfields redevelopment: the applications of cleanup standards determined by the intended future use of the land, and use of licensed or certified environment professionals to oversee and certify the cleanup of brownfields sites. These two innovations illustrate instances where legislatures or state administrative agencies attempted to streamline a process to facilitate the program's or legislation's goal of reducing the environment barriers to brownfields redevelopment, thus facilitating cleanup and redevelopment.
187. Rodríguez, A., et al. (2001). "Uneven redevelopment new urban policies and socio-spatial fragmentation in metropolitan Bilbao." *European Urban and Regional Studies* 8(2): 161-178.
- Since the mid 1980s, European cities and regions have become increasingly concerned with competitive restructuring and economic growth. This concern goes hand in hand with a rediscovery of the central role of cities in the performance of regional and national economies as a whole. But, in a context of radical transformation of production and demand conditions globally, the performance of cities is mediated by their capacity to lead a process of competitive redevelopment. To meet the challenges posed by the changing global competitive climate, the policy agenda of many cities has been drastically reorganized. On the one hand, the search for growth has transformed urban revitalization in one of the main domains of urban intervention. On the other, the new urban policy agenda is singularly framed in a language of competitiveness, improved efficiency, flexibility, entrepreneurship, partnership and collaborative advantage that underwrite the remaking of planning objectives, functions and instruments. In this article, we examine the rise of new urban policies in Bilbao (Spain), a city where two decades of manufacturing decline and economic restructuring are gradually giving way to so-called urban renaissance. During the 1990s, Bilbao has followed on the tracks of other old industrial cities adopting a revitalization strategy focused around large-scale and emblematic redevelopment projects. The article discusses one of these projects, Abandoibarra, a paradigmatic waterfront development that embodies the new logic of

urban intervention. The first section of the paper presents an analysis of economic restructuring and socio-spatial fragmentation dynamics in the city in the last two decades. The second section discusses changes in urban policy-making locating Bilbao's regeneration strategy in the context of the 'New Urban Policies'. The third section focuses on emerging governance dynamics and the critical role of new governance institutions in the management of Abandoibarra's redevelopment scheme. Finally, the fourth part of the article attempts to provide an evaluation of the impact of the project, highlighting the shadows behind what is presented as a new success story in urban revitalization.

188. Ruelle, C.^a, Halleux, J.-M.^b, Teller, J.^a (2013) Landscape Quality and Brownfield Regeneration: A Community Investigation Approach Inspired by Landscape Preference Studies, *Landscape Research*, 38(1): 75–99.
- Increasing emphasis is given to brownfield regeneration across Europe. However, many local actors consider landscape quality as a secondary issue in the regeneration process. The present research investigated community sensitivity to landscape quality in the context of brownfield regeneration. This analysis was conducted in six post-industrial neighbourhoods situated in Wallonia (Belgium). The investigation method was inspired by landscape preference studies (LPS) and complemented with a qualitative case study approach. This method produced valuable insight into local community expectations regarding landscape management in the context of brownfield regeneration. The results presented in this paper suggest that perceived landscape quality influences community evaluation of regeneration schemes and reveal an unpredicted preference of certain community groups for post-industrial aesthetics. The findings also suggest that higher landscape quality in brownfield regeneration increases the attractiveness and liveability of a locality. © 2013 Copyright Taylor and Francis Group, LLC.
189. Sagalyn, L. B. (2011). Public-private partnerships and urban governance: Coordinates and policy issues. *Global Urbanization*, University of Pennsylvania Press: 191-211.
- Policymakers, practitioners, and academics around the world make compelling arguments for bridging public and private sectors through alliance, collaboration, and partnership. Based on the logic of pragmatism, they cast these arrangements as innovative and resourceful ways of dealing with the intensifying demands of urbanization. Infrastructure policy specialists in particular, citing a combination of economic and institutional forces, emphasize the central role public-private partnerships (PPPs) can play in meeting the pressing need for new large-scale investments and the equally urgent need to refurbish existing systems. Construction engineering experts support the paradigm shift as a new way to solve particular problems in contracting for large-scale construction projects.¹ For governments and international donor organizations eager to enhance productivity and stimulate economic growth, PPPs represent an efficient means to

expand the scope of their development investments while securing advanced technological expertise. The driver of change, typically, is financial. Worldwide, governments face fiscal constraints from limited (or cash-starved) budgets and heightened voter sensitivity to taxes. For the past several decades, fiscal pressures have prompted government officials to experiment with innovative approaches to the intense technical challenges of planning, designing, financing, and executing large-scale infrastructure projects for the development and delivery of urban services. The ensuing big-three PPP formats - asset-sale privatization, contracting out, and cooperative or joint venture agreements - comprise an alphabet-soup list of acronyms affording public officials diverse alternatives to the traditional public-sector procurement model, which many experts benchmark as bureaucratically inefficient and costly. The worldwide momentum for PPPs has emerged from the support of a broad and diverse coalition that sees the strategy as a reform of urban governance as much as a pragmatic fiscal imperative. Complex urban problems and a better quality of urban services, policy reformers argue, are no longer solvable solely by traditional state intervention. Multifaceted approaches are required, including new institutional arrangements that devolve power from the national center to local government and reinvent government by engaging the private market to deliver urban services in cooperation or competition with public agencies (Osborne and Gaebler 1993; Moore and Pierre 1998; Engberg 2002). International funding organizations like the World Bank, the Asian Development Bank, the Japan Bank for International Cooperation, and the Inter-American Development Bank have entered the PPP advocacy tent, seeking to promote and expand the development of needed infrastructure around the world (USFHWA 2007a). And relatively recently, the European Union (EU) accepted the PPP as a "complementary implementation tool," linking PPP use to its initiatives for economic development and competitiveness (EC 2004; EC 2003; Newman and Verpraet 1999; Elander 2002; Grimsey and Lewis 2004).² In the U.S., the Department of Transportation, through its surface transportation administrations, aims to expedite urban transportation projects by encouraging state and local transportation agencies to consider the "selective use" of PPP approaches (USFHWA 2007b, 4-2). On the political front, some leading politicians have adopted PPPs as a central tool of governance within their ruling party's wider "modernization" agenda, as did Labour's Tony Blair when he became prime minister of the UK in 1997 (Flinders 2005). In short, the collaborative approach of the PPP paradigm theoretically affords government several strategic advantages, albeit with a trade-off: growing unease over traditional public-sector values that seem to get jettisoned on the path to collaboration. Policymakers have fed upon the optimism about PPPs to accelerate applications to broad and diverse urban problems across the globe. Between 1985 and 2004, worldwide PPP infrastructure projects orth more than \$2 billion

had been planned and funded, with 53 percent of them completed by the end of 2004 (USFHWA 2007a). In some countries, PPP has been an experimental innovation (Netherlands, Spain, Finland); in others, an ideological force (United Kingdom, Canada, Australia); and in still others, a variant on a history of mixed enterprise (United States, France, Singapore). PPP slogans often reveal these political drivers: "A New Framework for Infrastructure" (Asian Development Bank et al. 2005); "PFI: Meeting the Investment Challenge" (HM Treasury 2003); "Partnerships for Progress" (National Council for Public Private Partnerships 1998); "Working Together" (Farlam 2005). Whether for urban redevelopment/regeneration, transportation and environmental infrastructure, housing and homelessness, hospitals, schools, or economic development, the PPP model and its many variants has become the policy of choice for municipal government in the U.S., and an increasing number of countries in Europe and Asia. As practiced today, public-private collaboration marks a broad convergence of current economic forces and changing political paradigms. For the public sector, PPPs symbolize the search for greater efficiency of urban service delivery and resourceful mobilization of private capital to ease financial constraints and strengthen weak fiscal positions. For the private sector, PPPs represent an economic cornucopia of potential opportunity in urban markets across the globe. Evidence of the strategy's effectiveness is not extensive (though it is growing) relative to the number of PPP initiatives, and what exists is mixed (Daniels and Trebilcock 1996; Boase 2000; Public Citizen 2003; HM Treasury 2003; Flinders 2005; Siemiatycki 2006; Koppenjan 2005; Murray 2006; Cambridge Systematics 2006; USFHWA 2007a, 2007b). I can offer several (less than satisfying) explanations for this state of affairs. First, a PPP project takes a long time to execute before data can be marshaled for evaluation, and the full implications of performance may not even be understood for many years after a project's completion. Second, in the absence of a statutory or administrative mandate or a political decision to repurchase a concession or provide a subsidy, government stakeholders do not have strong motivation to undertake ex post evaluations that might reveal disappointing results or embarrassing and costly construction overruns. Third, the information needed to assess performance of a PPP project is, more often than not, confidential. Fourth, because each project has a nearly unique set of complexities, general lessons are hard to come by (Sagalyn 1990, 2007), especially from experiences in emerging market economies. Nevertheless, experience with PPPs in the U.S., Europe, and Asia has consistently brought to the fore common issues of governance, which are the focal point of this chapter. These public policy concerns are not particular to the PPP model, but the political rhetoric and elevated expectations for performance from cooperative (as opposed to adversarial) sector relationships add tension to the issues of accountability. In so doing, they amplify the political risks of adopting the PPP model as a

governance reform. In this chapter, I describe the coordinates of the global application of PPP and identify central commonalities of sector collaboration for both infrastructure development and urban redevelopment/ regeneration projects. The comparison across these two types of "hard" asset-based initiatives will, I hope, highlight the central issues of implementation and underscore the need for policymakers to address the nature of risk sharing, which I believe is central to the PPP strategy at the project level. It should also provide an understanding of how weak management of accountability concerns is likely to intensify the political risks of the PPP strategy. Copyright © 2011 University of Pennsylvania Press. All rights reserved.

190. Sagan, I. and M. Grabkowska (2012). "Urban Regeneration in Gdańsk, Poland: Local Regimes and Tensions Between Top-Down Strategies and Endogenous Renewal." *European Planning Studies* 20(7): 1135-1154.
 - Based on case studies of the Polish city of Gdańsk, the authors identified problems of post-socialist urban governance that hinder both the development of strategic, long-term approaches to regeneration as well as a reflection of "locale" in urban-regeneration strategies. The paper begins with a description of the demographic, economic and political processes negatively affecting the inner city and that have given rise to response strategies. Three revitalization case studies will be discussed in detail as examples of decidedly top-down approaches. At the same time, the authors also draw attention to more spontaneous processes of regeneration in the form of in-migration of middle-income households to pre-war tenement houses as well as attempts to involve local residents in "community-building" projects. More progressive urban policies that improve key local services, such as the quality of schools, might support endogenous social-regeneration processes even with relatively limited financial resources. Our findings suggest that the regeneration (not only) of post-socialist cities requires flexible policies and comprehensive approaches that make use of synergies emanating from "spontaneous" processes of revitalization. This, however, is contingent upon a gradual change in the "strategic mindsets" of key players. © 2012 Copyright Taylor and Francis Group, LLC.
191. Savini, F. and M. B. Aalbers (2016). "The de-contextualisation of land use planning through financialisation: Urban redevelopment in Milan." *European Urban and Regional Studies* 23(4): 878-894.
 - This paper scrutinises the effects that the financialisation of land has on the land use planning process. Although finance is increasingly penetrating not only real estate but also land planning and development, there are few in-depth case studies describing and analysing this process. Contemporary urban development is characterised by the clustering of investments, the relocation of projects into peripheral areas and an instrumental approach to planning. These trends are expressions of a change in the development process, characterised by the increased detachment

between land use planning processes at the local level and financial investor logics located at other scales. We call this the de-contextualisation of land capital. An in-depth analysis of the internal economic mechanics of an urban project in the Milan area is provided to illustrate these trends. We conclude by reflecting on the challenges that the conditions of financialised land capital pose to local and national governments. © 2015, © The Author(s) 2015.

192. Savini, F. (2013). " Rutland, T. (2010). "The financialization of urban redevelopment." *Geography Compass* 4(8): 1167-1178.

- Spurred by the conviction that not only financial capital but also changes in finance and changes in its relations with non-financial activities have immense and complicated consequences for ongoing processes of urban redevelopment, this article puts the presently separate financialization and urban redevelopment literatures in conversation. The article begins with a review of the financialization literature, outlining and evaluating four different approaches to the topic and seeking to consider what, if anything, they might have to offer to an area of inquiry that has long considered finance to be a central concern. The second section examines how financial capital has been analyzed in the urban redevelopment literature since the pioneering work of David Harvey in the 1970s. The final section examines how financialization has played out in the medium-sized port city of Halifax, Nova Scotia. Drawing on interviews with financiers and property developments, as well as secondary research materials, the study describes how a recent urban design process in Halifax enlisted urban images and ideas to rewrite development regulations, eliminate popular political involvement in the development approvals process, and lever open the downtown landscape to the whims of worldwide financial markets. The essay concludes that studies of urban redevelopment would indeed gain something by engaging with the financialization literature, so long as the former continue to attend not just to financial capital but also to the material and ideological mechanisms through which property is continually reproduced as a financial asset. © 2010 The Author. Journal Compilation © 2010 Blackwell Publishing Ltd.

193. Savini, F. (2013) The Governability of National Spatial Planning: Light Instruments and Logics of Governmental Action in Strategic Urban Development." *Urban Studies* 50(8): 1592-1607.

- Neo-liberalism and decentralisation are eroding the capacity of central governments to implement their national spatial objectives. National government, with fewer financial and political resources at its disposal, has little power to intervene in strategic urban development, because cities have sufficient autonomy to define their own land use plans. This paper challenges this understanding of the contemporary condition of national spatial planning. It demonstrates that, although national governments have a weaker grip on local spatial dynamics, they play an active role in governing complex spatial development. Two urban development projects in the Dutch Randstad will be

discussed in order to demonstrate empirically four different logics of involvement: endorsement, monetary impulse, propulsion and effectuation. It is concluded that there is great potential for national planning in a 'lighter' profile, with instruments used to strengthen the interconnectivity of networks-a condition for generating strategic capacity and ensuring the governability of spatial policies. © 2012 Urban Studies Journal Limited.

194. Schaefer, W.F Blokhuis, E.G.J., Han, Q. Braas, J., Kokke, C.J.T.M. (2010) Brownfield redevelopment: A business approach for regional collaboration, WIT Transactions on Ecology and the Environment 141: PART II, 2010, Pages PII3-PII135th
- Several problems can be distinguished when studying the general process of redevelopment of industrial areas in The Netherlands. Due to these problems - and combinations of these problems - redevelopment process fails or is severely delayed. In this article, an entrepreneurial approach for reconstruction of industrial areas in The Netherlands is advocated. The approach is based upon an explorative research project, examining relevant urban district development cases in The Netherlands and Sweden. Within this integral approach, all the aspects of the whole site are completely taken into account. This means that both the problems in public and private areas are addressed. The solutions need to be geared to one another and address the interests of all involved stakeholders. Thereby, we distinguish six major stakeholder groups: National Government, Province, Municipalities, Local Entrepreneurs, Investors and Development Companies. It is interesting to notify that there are three different governmental agencies involved, each having its own policy targets and rule-sets. An ideal typical public-private 'regional development company' (RDC) is proposed and outlined for a specific region, located in the Province of Noord-Brabant in The Netherlands. A major feature in this approach is the involvement of a number of different municipalities, each of them characterized as shareholder, similar to the local entrepreneurs. This research result was brought into a simulation experiment, testing the lay-out of the business organization. The outcomes of the experiment - showing an ideal design of a development company which can create an integral approach for restructuring industrial areas - are interesting and contribute to ongoing discussions concerning stagnating redevelopment of brownfields and industrial areas in The Netherlands. © 2010 WIT Press.
195. Schädler, S. Finkel, M. Bleicher, A. Morio, M. Gross, M. (2013), Spatially explicit computation of sustainability indicator values for the automated assessment of land-use options, Landscape and Urban Planning, 111(1): 34–45
- Contemporary land-use planning is based on project-specific evaluation methods from various scientific disciplines and has come to focus more recently on the integration of sustainability issues. Context-specific sets of indicators are typically used to evaluate and

quantify the sustainability of different planning options for given contexts. The evaluation of these indicators relies heavily on (expert) stakeholder input and can therefore not simply be integrated into standardized and automated assessment tools. This is seen as one of the reasons why sustainability - despite being widely accepted as one of the most crucial aspects in any development - is often not considered on equal terms in decision making and planning compared to environmental risks and economic considerations. In this paper we propose a scheme to transfer the evaluation of site-specific sets of sustainability indicators into automated quantitative and spatially explicit assessments, which can be integrated into multidisciplinary spatial optimization algorithms. Using simple landscape metrics along with typical spatial data and stakeholder knowledge on a brownfield near Potsdam, Germany, this transfer is implemented for an existing site-specific indicator set to evaluate the sustainability of brownfield redevelopment options in a case study. The automatic spatial evaluation and analysis of hundreds of systematically designed land-use options is explored to provide a detailed understanding of the indicator-based evaluation of sustainable land-use planning on the study site. The results suggest that a spatially explicit algorithmic evaluation of sustainability indicators may significantly improve the applicability, comprehensiveness and reliability of the indicator-based evaluation of sustainability. © 2012 Elsevier B.V.

196. Schädler, S, Morio, M, Bartke, S, Rohr-Zänker, R and Finkel, M (2011) Designing sustainable and economically attractive brownfield revitalization options using an integrated assessment model, *Journal of Environmental Management* 92(3): 827–837
- We describe the development of an integrated assessment model which evaluates redevelopment options of large contaminated brownfields and we present the application of the model in a case study. Aiming to support efficient and sustainable revitalization and communication between stakeholders, the presented assessment model integrates three pinnacles of brownfield revitalization: (i) subsurface remediation and site preparation costs, (ii) market-oriented economic appraisal, and (iii) the expected contribution of planned future land use to sustainable community and regional development. For the assessment, focus is set on the early stage of the brownfield redevelopment process, which is characterized by limited data availability and by flexibility in land use planning and development scope. At this stage, revealing the consequences of adjustments and alterations in planning options can foster efficiency in communication between the involved parties and thereby facilitates the brownfield revitalization process. Results from the case-study application indicate that the integrated assessment provides help in the identification of land use options beneficial in both a sustainable and an economical sense. For the study site it is shown on one hand that brownfield redevelopment is not automatically in line with sustainable regional development, and on the other hand it is demonstrated that additional

contributions to sustainability are not intrinsically tied to increased costs. © 2010 Elsevier Ltd.

197. Schaller, S. F. (2018). "Public–private synergies: Reconceiving urban redevelopment in Tübingen, Germany." *Journal of Urban Affairs*: 1-20.
- The public–private development (PPD) model created in Tübingen, Germany, exemplifies an alternative to traditional PPD practices that engage high-capacity business stakeholders, such as large developers and real estate investment firms. Although working in a context of fiscal duress, the local progressive urban regime created a PPD partnership to impede private investment from distorting development patterns. Public authorities deployed a 3-pronged approach: they maintained an authoritative position, created different stages and modes for participation, and diffused power over multiple small developer groups. They did not pursue a progrowth policy agenda but sought to produce broader social values through a community-building governance strategy and the promotion of what Imroscio (2013) calls an “ownership paradigm.” The model points to a well-calibrated urban regeneration strategy that creates a positive synergy between the regulatory authority and the administrative and fiscal capacity of the local state and private sector and community entrepreneurialism. © 2018 Urban Affairs Association
198. Schlichting, K. M. (2017). "Rethinking the bronx’s ‘soundview slums’: The intersecting histories of large-scale waterfront redevelopment and community-scaled planning in an era of urban renewal." *Journal of Planning History* 16(2): 112-138
- In the 1910s, the bungalow colony Harding Park developed on marshy Clason Point. Through the 1930s–1950s, Robert Moses sought to modernize this East Bronx waterfront through the Parks Department and the Committee on Slum Clearance. While localism and special legislative treatment enabled Harding Park’s preservation as a co-op in 1981, the abandonment of master planning left neighboring Soundview Park unfinished. The entwined histories of recreation and residency on Clason Point reveal the beneficial and detrimental effects of both urban renewal and community development, while also demonstrating the complicated relationship between localism and largescale planning in postwar New York City. © 2016 The Author(s).
199. Scott, A. J. (2018). "Land Redevelopment and the Built Environment in Third-Wave Cities: Review and Synthesis." *Journal of Urban Technology*.
- I seek to synthesize several different approaches to issues of urban land redevelopment and the built environment. The essay focuses on developments in the third and current historical wave of capitalist development. I describe the economic logic of land-use change with reference to both commercial and residential property. This logic has become intimately intertwined with global finance and this state of affairs has introduced new elements of fluidity and risk into the built environment. Issues of urban policy and the role of municipal authorities in shaping urban land markets are then considered. I describe how local government agencies increasingly pursue

development projects in complex partnerships with representatives of the real-estate industry. In the second half of the paper, the overall argument is recast by reference to three important trends in regard to land-redevelopment and the built environment in third-wave cities, namely, the economic and architectural renaissance of central business districts, the widespread gentrification of inner-city neighborhoods, and the emergence of a new post-suburban phase of peripheral urban expansion. © 2018, © 2018 The Society of Urban Technology.

200. Scott, J. W. and M. Kühn (2012). "Urban Change and Urban Development Strategies in Central East Europe: A Selective Assessment of Events Since 1989." *European Planning Studies* 20(7): 1093-1109.
- This introductory article to the present collection outlines a comparative research perspective that focuses on processes of post-socialist urban transformation and strategies of urban regeneration in different cities of Central Eastern Europe. In particular, urban regeneration will be discussed within the context of post-socialist urban governance and processes of institutional change. This paper consists of three sections. The first deals with trends of socio-spatial change, including "shrinkage", socio-economic polarization, industrial restructuring and simultaneous trends of gentrification and "downgrading" within inner city neighbourhoods. Discussion then follows with an overview of urban development challenges associated with these socio-spatial changes. We will also describe at length conceptual approaches of strategic planning as a form of governance that addresses processes of urban decline. Critical sources of debate that stem from the experiences of West European cities will be summarized and their relevance to East German and Central European contexts discussed. The last part of the essay provides brief overviews of the six essays featured in this special issue of *European Planning Studies*, indicating how they address questions of urban regeneration and the strategic management of urban development processes. © 2012 Copyright Taylor and Francis Group, LLC.
201. Searle, G. (2016). Funding large-scale brownfield regeneration projects. *Urban Regeneration in Australia: Policies, Processes and Projects of Contemporary Urban Change*, Taylor and Francis: 74-93.
- In this book, regeneration in Australian cities embraces the idea of active governance to bring about desired redevelopment of the existing urban area. A central consideration in this is the question of how the regeneration can be funded. This chapter focuses on the funding of major brownfield projects, a category of regeneration that are often the most obvious and largest examples of regeneration, and in which funding issues have been especially central to the way in which planning and development have been produced. The chapter surveys the different ways by which major Australian brownfield urban-regeneration schemes have been funded, and the governance context of these various methods. © 2018 selection and editorial matter, Kristian Ruming; individual chapters, the contributors.

202. Senbel, M. and S. P. Church (2011). "Design empowerment: The limits of accessible visualization media in neighborhood densification." *Journal of Planning Education and Research* 31(4): 423-437.
- Empowering community residents to participate in neighborhood design may help overcome the tension between the urban densification requirements of climate change planning and the political infeasibility of rapid change. This research employed accessible visualization media in public workshops to test the capacity of the media to enable empowerment. In a community facing imminent development we found processes of mitigated empowerment through which residents accessed and generated information, were inspired to act in the face of complex problems, and expressed their ideas. The media did not enable design empowerment in the areas of community inclusion or integration into the design process. © The Author(s) 2011.
203. Shapely, P. (2013). "Governance in the post-war city: Historical reflections on public-private partnerships in the UK." *International Journal of Urban and Regional Research* 37(4): 1288-1304.
- Partnerships between the public and private sectors have been a central feature in the development of British cities since the nineteenth century. Many major civic projects, transport links and even industrial estates have been successfully completed thanks to government, central and local, working with private interests, developers and investors. After the second world war, however, these partnerships became fundamental to the redevelopment of urban Britain. While the state provided legislation, finance and policy directives, local government worked with the private sector to build social housing, new roads and schools. However, the council also relied on private investment to transform tired city centres by building new shopping centres, hotels and office blocks. While contemporary studies recognize the importance of these partnerships in the growth of cities since the 1980s, this article will look at their significance in a broader historical perspective, highlighting the pivotal role they played from the 1950s to the 1970s, and assessing their relevance not simply in terms of the material redevelopment of the built environment but also in what is revealed about urban governance. © 2012 Urban Research Publications Limited.
204. Sheffield, J. (2009). Towards a design theory for collaborative technologies: Habermasian analysis of comprehensive urban planning.
- This article proposes a design theory for collaborative technologies based on pragmatism and multiple discourses (Habermas 1984; Schultze and Leidner, 2002). The practical value of the theory is explored via empirical data gathered in the context of an intervention enabled by Group Support Systems (GSS) in regional governance and comprehensive urban planning. During the study representatives of the regional council and territorial authorities meet to evaluate three scenarios prepared over a seven-year period. Qualitative measures were obtained of the degree of confusion (lack of understanding) and conflict (lack of trust) before and after the meeting, and participant

- performance and satisfaction with electronic discourse. The focus question is "Do electronic discourses enhance participant's understanding and trust in scenario planning?" © 2009 IEEE.
205. Silverman, R. M., et al. (2015). "Municipal property acquisition patterns in a shrinking city: Evidence for the persistence of an urban growth paradigm in Buffalo, NY." *Cogent Social Sciences* 1(1).
- The purpose of this article is to examine municipal property acquisition patterns in shrinking cities. We use data from the City of Buffalo's municipal property auction records to analyze the spatial distribution of properties offered for sale in its annual tax foreclosure auction. In addition to these data, we examine demolition and building permit records. Our analysis suggests that cities like Buffalo follow strategies based on an urban growth paradigm when responding to abandonment. This paradigm operates under the assumption that growth is a constant and urban development is only limited by fiscal constraints, underdeveloped systems of urban governance, environmental degradation, and resistance by anti-growth coalitions. We recommend that planners in shrinking cities de-emphasize growth-based planning and focus on rightsizing strategies. These strategies are based on the assumption that growth is not a constant. Consequently, urban revitalization is concentrated in a smaller urban footprint. © 2015, © 2015 The Author(s). This open access article is distributed under a Creative Commons Attribution (CC-BY) 4.0 license.
206. Silverthorne, T (2006) What constitutes success in brownfield redevelopment? A review, *WIT Transactions on Ecology and the Environment*, 94: 39-49
- This review identifies and examines the different definitions of success that appear in the literature on brownfield redevelopment and discusses perceptions of: greenspace creation; economic issues; sustainability and success models. It concludes with some insights into what is currently perceived to constitute success in brownfield redevelopment. Brownfield redevelopment is generally acknowledged as one of the principal factors in ensuring that development is sustainable, but there is neither a benchmark standard nor a list of criteria by which success can be defined. In many redevelopments that have been judged, primarily by the developers, to be successful there is little correlation between the criteria on which the success has been claimed and the social or economic wellbeing of the local residents and success may in fact occur at their expense. Success is usually measured against the original objectives of the project where the focus is often more towards economic factors rather than social and environmental factors. All of these variables make it very difficult to generically quantify success in brownfield redevelopment.
207. Smedby, N. and L. Neij (2013). "Experiences in urban governance for sustainability: The Constructive Dialogue in Swedish municipalities." *Journal of Cleaner Production* 50: 148-158.

- The objective of this paper is to analyse the Constructive Dialogue, an initiative for collaborative and integrated urban governance for a sustainable built environment. The dialogue processes, implemented in six Swedish cities in 2004-2009, involved various actors and many types of initiative. Designed as a meta-analysis based on existing evaluations and supplementary interviews, this study examines experiences in capacity building in terms of building relationships, enhancing knowledge, and mobilisation. The study also considers achieved outcome in terms of sustainability, and specifically in terms of environmental aspects. The results show that the collaborative processes to promote relationship building were highly appreciated and that processes of knowledge exchange and knowledge enhancement were seen as quite successful. Consequently, an important result was the enabling of faster processes for urban planning to facilitate the process of urban densification. However, capacity building in terms of mobilisation for a sustainable development was seen to be less successful; the results show that the capacity of the Dialogue to enable mobilisation around sustainability issues through the creation of common visions and goals was weak. The best result was seen in Malmö where the Constructive Dialogue resulted in a shared sustainability agreement which was applied in the development of a new construction site. However, limitations were the difficulties in setting ambitious goals and the lack of knowledge and experience to meet the goals set in the agreement. The study indicates a difficulty in simultaneously considering process and environmental concerns and a tension between consensus and cutting-edge solutions. The study also illustrates the need to further develop processes for urban governance for sustainability. © 2013 Elsevier Ltd. All rights reserved.

208. Smith, H. and M. Soledad Garcia Ferrari (2012). *Waterfront regeneration: Experiences in city-building*, Taylor and Francis.

- Waterfront regeneration and development represents a unique opportunity to spatially and visually alter cities worldwide. However, its multi-faceted nature entails city-building with all its complexity including the full range of organizations involved and how they interact. This book examines how more inclusive stakeholder involvement has been attempted in the nine cities that took part in the European Union funded Waterfront Communities Project. It focuses on analyzing the experience of creating new public realms through city-building activities. These public realms include negotiation arenas in which different discourses meet and are created “including those of planners, urban designers and architects, politicians, developers, landowners and community groups “as well as physical environments where the new city districts’ public life can take place, drawing lessons for waterfront regeneration worldwide. The book opens with an introduction to waterfront regeneration and then provides a framework for analyzing and comparing waterfront redevelopments, which is followed by individual case study chapters highlighting specific topics

and issues including land ownership and control, decision making in planning processes, the role of planners in public space planning, visions for waterfront living, citizen participation, design-based waterfront developments, a social approach to urban waterfront regeneration and successful place making. Significant findings include the difficulty of integrating long term 'sustainability' into plans and the realization that climate change adaptation needs to be explicitly integrated into regeneration planning. The transferable insights and ideas in this book are ideal for practising and student urban planners and designers working on developing plans for long-term sustainable waterfront regeneration anywhere in the world. © 2012 selection and editorial material, Harry Smith and Maria Soledad Garcia Ferrari.

209. Solitare, L. ^{and} Lowrie, K. (2012) Increasing the capacity of community development corporations for brownfield redevelopment: An inside-out approach, *Local Environment* 17(4): 461–479.
- While the redevelopment of brownfield sites has been the mainstay of public agencies and private developers, this paper argues that in order to promote just redevelopment that encourages participation and targets weak market sites, a community-based approach to brownfield redevelopment should be encouraged. Furthermore, this paper maintains that community development corporations (CDCs) could be the ideal agents to spur community development and address environmental justice concerns through their increased involvement in brownfield redevelopment projects. In order to promote these positions, we first describe this new approach, which focuses on building the capacity of CDCs to meaningfully participate in brownfield redevelopment. We then offer four proposals designed to increase this capacity. We conclude with a discussion of how community-based brownfield redevelopment connects to larger issues of democratic decision-making, environmental justice, and urban revitalisation. © 2012 Taylor and Francis Group, LLC.
210. Solitare, L. (2005). "Prerequisite conditions for meaningful participation in brownfields redevelopment." *Journal of Environmental Planning and Management* 48(6): 917-935.
- Current research in environmental planning supports decision making based on collaborative planning mechanisms. While current research clearly details the limitations to and prerequisites for meaningful public participation in general and for select environmental issues, there is little focus on them in brownfields redevelopment. In practice, the general assumptions are that brownfields redevelopment is an ideally situated policy issue for participatory planning. However, as this paper will illustrate through case study research, there are several situational prerequisites that must be met before there can be meaningful citizen participation in brownfields redevelopment. By highlighting these prerequisites, the author's goal is to mobilize research and policy efforts to overcome those limitations and to foster widespread meaningful participation in the redevelopment of brownfields in residential neighborhoods. © 2005 University of Newcastle upon Tyne.

211. Sounderpandian, J., Frank, N., Chalasani, S. (2005) A support system for mediating brownfields redevelopment negotiations, *Industrial Management and Data Systems* 105(2): 237–254
- Purpose - To present a support system which will be useful to mediators of brownfield redevelopment negotiations between government and industry representatives.
Design/methodology/approach - The support system optimizes a weighted utility function of the parties involved in the negotiation. It provides not only the optimal solution but also some sensitivity reports which the mediator can use to lead the negotiations in the most effective direction. Findings - The spreadsheet technology is sufficient to solve the optimization problem and produce sensitivity reports in real time. Consequently, a mediator equipped with a laptop computer can lead the negotiations efficiently. Research limitations/implications - It is possible to achieve Pareto optimal contingent contracts among the stakeholders of brownfield redevelopment projects. Practical implications - Many negotiations that were stalled in the past could be completed successfully using the support system presented here. New negotiations might be completed more efficiently than without the system. Originality/value - This is the first paper to offer detailed guidance to mediators of brownfield redevelopment projects. © Emerald Group Publishing Limited
212. Spiess T. and De Sousa, C., (2016), Barriers to Renewable Energy Development on Brownfields, *Journal of Environmental Policy and Planning*, 18(4): 507–534
- Brownfields that are reused for the generation of renewable energy are called brightfields. This rapidly emerging idea advocates the combination sustainable site reuse and the generation of electricity from renewables. While programmes like the RE-Powering America's Land Initiative herald its benefits, academia knows but little of its barriers and challenges. This study aims to examine the technical/environmental, regulator/financial/institutional, and social barriers to this type of development, along with measures that may address them. The barriers and measures were predominately identified via a qualitative and quantitative survey sent to brightfield developers (experts), along with a review of case studies and the emerging brightfield literature. The study found that environmental/technical barriers only differ from 'conventional' renewable energy projects (e.g. on Greenfields) in the event of site contamination. The latter then is what makes brightfields unique and is the source for a myriad of challenges concerning risk and liability, which cause financial problems and investment hesitance. However, evidence conjectures that there is less contextual public opposition to brightfields compared to conventional renewable energy. © 2016 Informa UK Limited, trading as Taylor & Francis Group.
213. Stezar, I.C, Ozunu, A.Barry, D.L ,(2014), The role of stakeholder attitudes in managing contaminated sites: Survey of Romanian stakeholder awareness, *Environmental Science and Pollution Research*, 21(1): 787–800.

- The past decade has seen substantial policy effort directed at promoting the reclamation and reuse of urban brownfield or potentially contaminated land. This paper is based on the results of a survey regarding the role of stakeholder attitudes in managing contaminated sites at the Romanian level. Findings indicate that effective policies and programmes need to be framed within an understanding of the different needs of national development. While different perceptions were identified in regard to the meanings of several concepts and terms used in this field, important aspects related to the need for developing a correctly ranked and coordinated decision-making process were also identified. Additional findings indicate gaps in the legal mechanisms intended to promote brownfield rehabilitation in the course of redevelopment. At the same time, the survey respondents suggested several recommendations such as the necessity of developing a risk assessment to establish the level and extent of contamination that can endanger human health and the environmental integrity on a site and also the need for greater compatibility between land-use planning processes and environmental legislation related to contaminated site management. The paper presents general conclusions engaging all the recommendations drawn from the survey questionnaire as well as from the general current situation in Romania. © 2013 Springer-Verlag Berlin Heidelberg.
214. Stezar, I.C.^a, Pizzol, L.^b, Critto, A.^b, Ozunu, A.^a, Marcomini, A.^b (2013) Comparison of risk-based decision-support systems for brownfield site rehabilitation: DESYRE and SADA applied to a Romanian case study, *Journal of Environmental Management* Volume 131, 15 December 2013, Pages 383-393
- Brownfield rehabilitation is an essential step for sustainable land-use planning and management in the European Union. In brownfield regeneration processes, the legacy contamination plays a significant role, firstly because of the persistent contaminants in soil or groundwater which extends the existing hazards and risks well into the future; and secondly, problems from historical contamination are often more difficult to manage than contamination caused by new activities. Due to the complexity associated with the management of brownfield site rehabilitation, Decision Support Systems (DSSs) have been developed to support problem holders and stakeholders in the decision-making process encompassing all phases of the rehabilitation. This paper presents a comparative study between two DSSs, namely SADA (Spatial Analysis and Decision Assistance) and DESYRE (Decision Support System for the Requalification of Contaminated Sites), with the main objective of showing the benefits of using DSSs to introduce and process data and then to disseminate results to different stakeholders involved in the decision-making process. For this purpose, a former car manufacturing plant located in the Brasov area, Central Romania, contaminated chiefly by heavy metals and total petroleum hydrocarbons, has been selected as a case study to apply the two examined DSSs. Major results presented

here concern the analysis of the functionalities of the two DSSs in order to identify similarities, differences and complementarities and, thus, to provide an indication of the most suitable integration options.

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215. Swaffield, S. R. (2012). "Reinventing Spatial Planning at the Urban Rural Interface: A Christchurch, New Zealand Case Study." *Planning Practice and Research* 27(4): 405-422.
 - Peri-urban areas are characterized by rapidly changing relationships between rural and urban land uses and activities and present both conceptual and practical policy challenges. Traditional urban containment strategies are being supplemented by a range of alternative spatial strategies and styles of governance. New Zealand has experimented with a performative approach to planning, replacing conventional land use zoning with an effects-based resource management paradigm. Consequences for peri-urban landscapes are investigated and implications for other developed countries seeking to reform their planning systems are discussed. © 2012 Copyright Taylor and Francis Group, LLC.
216. Sroka, R. (2016) TIF for that: Brownfield redevelopment financing in North America and Calgary's Rivers District, *Cambridge Journal of Regions, Economy and Society* 9(2): 391-404
 - This article examines financing tools to facilitate urban brownfield neighbourhood remediation and redevelopment, with a focus on Tax Increment Financing (TIF). Through an analysis of TIF and alternative schemes for brownfield remediation and redevelopment in both the USA and Canada, the article leads to an evaluation of Alberta's Community Revitalization Levy (CRL) and its application in Calgary's Rivers District. The article argues that TIF via the Alberta CRL, shaped by lessons learned in other jurisdictions, has been an effective instrument to jumpstart redevelopment in the Rivers District relative to other potential schemes, past attempts, and an absence of significant government involvement altogether. © The Author 2016. Published by Oxford University Press on behalf of the Cambridge Political Economy Society.
217. Syms, P. (2008). *Land, Development and Design*, Wiley Blackwell.
 - This new textbook for students and practitioners of surveying and town planning, as well as other built environment professionals with an interest in the processes of property development, provides a modern view of site assembly, town planning policies and development risk, environment issues, masterplanning and design. The principal focus of the book is on the reuse of urban land, including treatment options, and regeneration of the built environment, whilst not ignoring greenfield development. The book is divided into four parts: the development process and planning policies site assessment, risk analysis and remediation of contaminated land feasibility studies and financial appraisals design issues 'Paul Syms has written to fill the gap [between developers and public planners], and is to be congratulated on doing so. It will immediately and

justifiably become a standard text for every student and professional who wants to understand the land development process and its outcomes.' - Professor Sir Peter Hall, Director of the Institute of Community Studies. © 2002 Blackwell Science Ltd. All rights reserved.

218. Tang, Y.-T, Paul Nathanail, C (2012) Sticks and Stones: The impact of the definitions of brownfield in policies on socio-economic sustainability, *Sustainability* 4(1): 840–862

- Many countries encourage brownfield regeneration as a means of sustainable development but define "brownfield" differently. Specifically, the definitions of brownfield in the regeneration policies of countries with higher population densities usually promote recycling land that is previously developed, whether or not there is chemical contamination. Further, the de facto definition of brownfield used by the UK government focuses on previously developed land that is unused or underused. The ANOVA in this study revealed that local authorities in England (n = 296) with higher percentages of derelict and vacant land tended to be more deprived based on the English Indices of Multiple Deprivation, which evaluate deprivation from the aspects of income, employment, health, education, housing, crime, and living environment. However, the percentage of previously developed land in use but with further development potential had no significant effect on the deprivation conditions. The Blair-Brown Government (1997~2010) encouraged more than 60% of new dwellings to be established on the previously developed land in England. The analyses in this study showed that this target, combined with the definition of brownfield in the policy, may have facilitated higher densities of residential development on previously developed land but without addressing the deprivation problems. These observations indicate that a definition of brownfield in regeneration policies should focus on previously developed land that is now vacant or derelict if land recycling is to contribute to sustainable communities. © 2012 by the authors

219. Taylor, B. M. and B. P. Harman (2016). "Governing urban development for climate risk: What role for public–private partnerships?" *Environment and Planning C: Government and Policy* 34(5): 927-944.

- Urban partnerships are an instrument of urban governance common in major urban development projects. However, the potential for these traditional urban policy instruments to promote climate-adapted greenfield development remains largely untested. This study examines this potential through an analysis of four urban development partnerships for master-planned estates in two rapidly urbanising regions of Australia. We interview private property developers, government land organisations and municipal level actors. The analysis focuses on the convergence, and tensions, between partners' goals of affordability, profitability and sustainability; benefits and risks of partnering; and, the management of assets over time, in light of environmental risks. The partnerships studied contributed to the

state's capacity to implement policy efficiently, encourage innovation and de-risk projects for private partners. However, these initiatives also transferred longer term environmental risks to the broader planning system and to non-partners. The central role of the state in coordinating these arrangements presents opportunities to redress these limitations. © 2016, © The Author(s) 2016.

220. Temelová, J. (2007): Flagship developments and the physical upgrading of the post-socialist inner city: The Golden Angel project in Prague, *Geografiska Annaler, Series B: Human Geography* 89(2): 169-181
- Over the past few decades many urban leaders have searched for an appropriate policy response to tackle urban decay. Various kinds of flagship projects emerged in many cities as the products of a property-led approach to the regeneration strategies adopted by local governments in North American and European cities. It was expected that the creation of high-profile milieux would launch chain reactions which would eventually lead to the regeneration of declining neighbourhoods. The focus of this study lies in the anatomy of physical transformation in an inner city neighbourhood within the context of post-socialist transition. In particular, the paper discusses the flagship role of the Golden Angel commercial centre in the physical upgrading of the Smíchov district in Prague. The case study contributes to the understanding of complex circumstances and mechanisms of revitalization in the post-socialist inner city. The empirical material is based on field observations, expert opinions and existing documents. The paper shows that a high-profile project can be one of the driving forces in physical revitalization through the provision of symbolic power, credibility and appeal to a declining neighbourhood. At the same time, it is emphasize that physical transformation is a multi-conditional and context-related process rather than an automatic and straightforward outcome of flagship developments. Successful revitalization depends on a favourable constellation of various factors. On the local level, the key factors include the development potential of the location, the attitude of the local authorities and the commitment of all involved actors. © 2007 Swedish Society for Anthropology and Geography.
221. Theurillat, T. and O. Crevoisier (2013). "The sustainability of a financialized urban megaproject: The case of Sihlcity in Zurich." *International Journal of Urban and Regional Research* 37(6): 2052-2073.
- Financialization and sustainable urban planning are now two major components of urban production and landscape change in Western cities. The purpose of this article is to demonstrate how the intervention of financial actors influences urban sustainability in the building of megaprojects, by developing a conceptual framework for analysis and interpretation. This framework aims first to examine the way in which sustainability has been produced by the different actors involved in a real-life situation, and then to place these interactions in their institutional, spatial and temporal context. Consequently, sustainability is understood as a social construct which is the object of

negotiations that have led to the making of institutional arrangements in order to allow the project to be carried through. This framework has been constructed from the financial geography and urban geography literature on 'finance, the city and sustainability' and from a case study. The latter looks at the regeneration of a brownfield site to create a shopping and leisure complex that was the biggest in Switzerland and was purchased by financial actors. © 2012 Urban Research Publications Limited.

222. Thomas, M.R. (2002) A GIS-based decision support system for brownfield redevelopment, *Landscape and Urban planning*, 58(1): 7–23
- Rapid growth in regions surrounding large metropolitan areas leads to the phenomenon of urban sprawl. In states like Michigan, land is being converted at a rate seven times greater than formerly used (and potentially contaminated) sites are being redeveloped. City governments now see these unused or abandoned areas as important assets in realizing the goal of urban revitalization. New legislation in Michigan provides economic (e.g. tax recapture) and legal (e.g. suspension of retroactive liability) incentives for local governments and prospective developers who are now seeking these brownfields instead of farmland and open space. To evaluate land use options with respect to brownfields inventory, characterization, and potential for redevelopment, both government and private decision-makers need access to information regarding land capability; development incentives; public goals, interests, and preferences; and environmental concerns such as site contamination and environmental quality. This paper discusses a decision support system that provides access to state, regional, and local geospatial databases, several informational and visualization tools, and assumptions useful in providing a better understanding of issues, options, and alternatives in redeveloping brownfields. The resultant decision support system is augmented by a unique geographic information systems (GIS)-based land use modeling application called Smart Places® as an integrated expert system. The decision support system is being tested in a city and county-level brownfield identification, screening, and marketing effort in Jackson County, Michigan. This project represents a testbed for decision-makers and policy analysts at all levels of government to establish urban land use policy and development guidelines that may be applicable to related land use issues in a variety of urban and urbanizing settings. While this project was conducted in Michigan, the tools and procedures used are seen as readily adaptable to other locations. © 2002 Elsevier Science B.V. All rights reserved.
223. Thornton, G., et al. (2007). "The challenge of sustainability: incentives for brownfield regeneration in Europe." *Environmental Science and Policy* 10(2): 116-134.
- Brownfields are often not economically competitive for regeneration compared with greenfield sites without public intervention. The economic, environmental and social barriers present at the site

frequently hinder returning brownfields to beneficial use. The European Union and its member states provide different public incentives to make brownfield regeneration more attractive but rarely consider their sustainability. Deciding how to regenerate brownfields should involve more than redeveloping the site to meet regulations or to meet a predetermined site use. Member states, policy makers, land owners and developers need to understand all aspects of brownfield regeneration and how sustainability issues need to be paramount in choosing alternative site uses. This paper presents the existing incentives on a European Union level, in Germany, the UK, and France; it discusses the effects and gaps; and makes suggestions for more effective instruments for the promotion of sustainable brownfield regeneration. © 2006 Elsevier Ltd. All rights reserved.

224. Turečková, K, Nevima, J, Škrabal, J., Martinát, S. (2018) Uncovering patterns of location of brownfields to facilitate their regeneration: Some remarks from the Czech Republic, *Sustainability* 10(6): Article number 1984
- The issue of brownfield regeneration is closely connected to balanced and sustainable development of regions, towns, and cities as it endeavors to reuse buildings and sites that have already lost their original use, but at the same time offers a possibility to generate new beneficial activities for the whole society that exceed just material or physical changes of the brownfield sites. The regeneration of every brownfield is usually a highly site-specific issue and individual and unique impacts of regeneration on the particular locality are obvious. Yet, several patterns in sets of non-regenerated brownfields can be identified. By finding and defining such patterns, a framework of indicators to facilitate brownfield regeneration can be created and the importance and strength of a particular indicator can be defined. By means of the analyses, we are able to recommend various relevant and most suitable approaches with regards to brownfield regeneration in individual regions. We have employed Factor Analysis (FA) for the identification of key factors of brownfield regeneration. In particular, Principal Component Analysis (PCA) was applied to conduct analyses of 1304 non-regenerated brownfields located in seven regions of the Czech Republic (NUTS 3 level). Data were obtained from publicly available brownfield databases of individual regional administrations. By means of Factor Analysis, it was ascertained that the most frequent factor that is typical for the surveyed non-regenerated brownfields is the ownership. The second most frequent factor is the size of the brownfields. As the third factor according to importance, the distance between the location of the individual brownfield and the municipality of extended powers (the so-called small district) was identified. By taking into account the results of the conducted analyses, brownfield regeneration policies of individual regions might be adapted to be more suitably targeted. © 2018 by the authors.
225. Tureckova, K., Martinat, S., Skrabal, J., Chmielova, P., Nevima, J. (2017) How local population perceive impact of brownfields on the residential

property values: Some remarks from post-industrial areas in the Czech Republic, *Geographia Technica* 12(2): 150-164

- Brownfields are an integral part of contemporary cities in Central Europe. It is obvious that the occurrence of brownfields influences the value of residential properties that are located in their neighbourhoods. In our research, we focused on the problem of perception of brownfields and ways how the perception of these sites affects prices of local real estate. Set of questionnaire surveys was conducted in three case study municipalities (Karvina, Orlova, Detmarovice in the Czech Republic) to ascertain factors that cause the specific perception of brownfields in municipalities that are heavily affected by the heavy industry and mining. It was found that brownfields are perceived quite negatively here and local population believes that the occurrence of brownfields significantly affects local residential property values. More polarized opinions of the population have been ascertained in case of Karvina, where plenty of brownfields are located within the settled part of the city. A key finding of our survey is that spatial distribution of brownfields within the particular city is of crucial importance while thinking about the impact of brownfields on the residential property values. © 2017, Asociatia Geographia Technica. All rights reserved.
226. Tzoumis, K and Bennett, S.F. (2009) Perspective: The brownfield professional team, *Environmental Practice*, 11(3): 212–214
- Kelly Tzoumis and Susan F. Bennett focus on the importance of developing a team of diverse professionals to work on brownfield sites to examine other vital components like the broader social, political, and cultural foundations of the neighborhood. The brownfield team minimally requires expertise from areas like real estate, finance investment, legal and intergovernmental relations, communication and public relations, environmental sciences, and technical specialties, depending on the specific nature of the site and the project management. Suggesting that brownfield teams are built for the re-development planning and implementation of each project also requires the preparation of the individual professional on the team. Students easily accept the need for government to provide resources to attract private investments for brownfield redevelopment. Students need instruction on the importance and legitimacy of this goal, the need for government involvement, and appropriate means of analysis, if social equity is to be incorporated into policy considerations.
227. van der Krabben, E. and B. Needham (2008). "Land readjustment for value capturing: A new planning tool for urban redevelopment." *Town Planning Review* 79(6): 651-672.
- Many urban redevelopment projects include expensive infrastructural works. In order to find funds for such infrastructure development, city planners are increasingly looking for opportunities for 'value capturing' from related property development. The argument is: investment in new infrastructure improves the accessibility of the locations connected to this infrastructure, with the result that property values in

those locations increase. Based on this supposed relation, municipalities negotiate with property owners and developers to get them to finance part of the infrastructure costs. This may take place, for instance, in redevelopment projects around stations, thus linking public development of infrastructure to private development of property. However, the available legal instruments are not effective. This article explores a new legal instrument, namely urban land readjustment. The argument is supported by estimates of the potential extra property value in station areas resulting from public infrastructure investment. We argue that such a legal instrument, which is already in use in some countries, may be a valuable new planning tool in the Netherlands and elsewhere.

228. Van Empel, C. (2008). "The effectiveness of community participation in planning and urban development." 117: 549-556.
- Contemporary planning theories acknowledge the value of community participation in the development processes of our built environment, suggesting that community involvement has the potential to achieve a more sustainable outcome. Research in this field indicates that citizen participation can generate trust, credibility and commitment regarding the implementation of policies. This paper investigates tools to measure the effectiveness of public participation and their influence on urban development processes. Based on a literature review, a framework of indicators was developed, which has been used to analyse the community participation process in the development of the 'Greater Christchurch Urban Development Strategy', a collaborative initiative to develop a growth strategy for the Christchurch region in New Zealand. Results from this case study suggest that there is a relationship between the various indicators and the main findings can be summarized as follows: (i) Most sectors of the community appear to have an interest in their built environment and urban planning processes, provided that their involvement is encouraged by stimulating information and expertise is provided to support their contributions, (ii) Although no conclusions on the motivation of the various participants in the process were reached, the professionals involved appear to have a strong interest in networking and the sharing of expertise, (iii) A commonality in the views of the public was observed, with a focus on the 'big picture' rather than self-interests. (iv) Collaborative planning was experienced as an effective technique for consensus building between professionals. (v) The quality of resources and allocation of time appear to be influential in a community participation process, (vi) Indications were given that process and product outcomes should not be evaluated separately.
229. Wang, L Fang, L and Hipel, K.W (2011) Negotiation over Costs and Benefits in Brownfield Redevelopment Group Decision and Negotiation 20(4): 509 - 524
- A quantitative methodology is developed to support negotiations over the allocation of costs and benefits in brownfield redevelopment projects by utilizing cooperative game theory. In particular, guidelines

for estimating the net benefits of various coalitions that can be formed by the landowners, developers and governments are presented. A general n-player cooperative game is formulated to model the negotiations. Two simple conditions are obtained for checking whether or not a three-player brownfield redevelopment negotiation game has a nonempty core. Various nucleolus concepts and the Shapley value are utilized to find alternative fair cost and benefit allocation schemes, from which the decision makers can negotiate. An illustrative example is employed to demonstrate how the proposed approach can be applied in practice. © 2009 Springer Science+Business Media B.V.

230. Weber, R. (2010). "Selling city futures: The financialization of urban redevelopment policy." *Economic Geography* 86(3): 251-274.
- This article examines the specific mechanisms that have allowed global financial markets to penetrate deeply into the activities of U.S. cities. A flood of yield-seeking capital poured into municipal debt instruments in the late 1990s, but not all cities or instruments were equally successful in attracting it. Capital gravitated toward those local governments that could readily convert the income streams of public assets into new financial instruments and that could minimize the risk of nonpayment due to the actions of nonfinancial claimants. This article follows the case of Chicago from 1996 through 2007 as the city government subsidized development projects with borrowed money using a once-obscure instrument called Tax Increment Financing (TIF). TIF allows municipalities to bundle and sell off the rights to future property tax revenues from designated parts of the city. The City of Chicago improved the appearance of these speculative instruments by segmenting and sequencing TIF debt instruments in ways that made them look less idiosyncratic and by exerting strong political control over the processes of development and property tax assessment. In doing so, Chicago not only attracted billions of dollars in global capital but also contributed to a dangerous oversupply of commercial real estate. © 2010 Clark University.
231. Weber, B.R Adair, A Mcgreal, S (2008) Solutions to the five key brownfield valuation problems, *Journal of Property Investment & Finance* 26(1): 8–37
- Purpose The purpose of this study is to solve five key brownfield valuation problems. Design/methodology/approach This aim is achieved by using doctoral research on integrating the scientific process into the appraisal process. The first objective is demonstrating why four of the problems require solutions prior to solving the first problem, a valuation procedure for formerly used sites. A second objective is to use empirical data from appraisals to reveal why existing methodology is not reliable – because it does not solve the four problems. Findings The resulting findings are that a developmental model that incorporates the Triad approach to quantifying environmental uncertainty, initially used in the USA, simulates a process used by buyers to establish the price paid for brownfields with contaminated land. Practical implications The practical implication that results from this research is that valuers need to emulate the buyer's process when valuing this property type.

Prescriptive procedures for valuation requiring the use of scientific methods, as used in the Triad process, need to be set forth to quantify the atypical uncertainties in valuing this property type. The results of this research should be of significant interest to all stakeholders that are involved in brownfield redevelopment, so that they can insure that their needs will be met by improved feasibility analysis.

Originality/value This research is unique in that it is the first empirical test of the reliability of the valuation of brownfields that need to undergo a time-consuming and often expensive soil remediation process. © 2008, Emerald Group Publishing Limited

232. Wedding, G.C Crawford-Brown, D (2007), Measuring site-level success in brownfield redevelopments: A focus on sustainability and green building, *Journal of Environment Management* 85(2): 483–495

- This research has met the following four objectives within the broader research topic of characterizing and quantifying success in brownfield revitalization: (1) to define 40 total indicators that define and determine the success of brownfield redevelopments in four categories: environment-health, finance, livability, and social-economic; (2) to use these indicators to develop a partially automated tool that stakeholders in brownfield redevelopment may use to more easily assess and communicate success (or failures) in these projects; (3) to integrate "green" building as an important aspect of successful brownfield redevelopments; and (4) to develop this tool within the framework of a specific multi-attribute decision method (MADM), the analytical hierarchical process (AHP). Future research should include the operationalization and application of this tool to specific sites. Currently, no such indicator framework or automated tool is known to exist or be in use. Indicators were chosen because of their ability to reduce data into comprehensible measurements and to systematically measure success in a standardized fashion.

Appropriate indicators were selected based on (1) interviews with prominent private developers and national leaders in brownfield redevelopment, (2) a review of the relevant literature, (3) objective hierarchies created in this project, and (4) the ability for each indicator to serve goals in more than one of the four categories described above. These were combined to form the Sustainable Brownfields Redevelopment (SBR) Tool. A survey was conducted to serve as a preliminary assessment and proposed methodology for judging the validity of the SBR Tool. Professionals in the academic, private, and public sector were asked to provide an evaluation of the management tool and a weighting of the relative importance of each indicator and each of the four categories listed previously. Experts rated the tool at 7.68 out of 10 suggesting that this framework will be useful in evaluating these redevelopments upon completion and in formulating initial site plans and building design. © 2006 Elsevier Ltd. All rights reserved.

233. Wernstedt, K.^a, Blackman, A.^b, Lyon, T.P.^c, Novak, K.^d (2013) Revitalizing underperforming and contaminated land through voluntary action:

Perspectives from U.S. voluntary cleanup programs, *Land Use Policy* 31: 545–556

- Nearly every state in the United States has developed a voluntary land cleanup program to support an alternative, more decentralized approach to the revitalization of contaminated and underperforming land. Yet, despite the ubiquity of such programs and the thousands of properties enrolled in them, we know relatively little about their formation and attractiveness. This paper reports results from interviews of officials in voluntary cleanup program in all fifty states, and from a survey of program participants in one state. It seeks to characterize attitudes about the desirability and performance of voluntary cleanup programs and to motivate further research into policies to improve their efficacy. Results suggest the primacy of economic redevelopment in motivating state officials to develop voluntary cleanup program, with improving environmental quality, promoting regulatory reform, easing political pressures, and improving the cleanup process also playing roles. Program participants in the state examined in detail indicated that gaining liability protection, decreasing cleanup costs, and facilitating property sales constitute the most important potential benefits of enrolling properties in voluntary cleanup programs. © 2012 Elsevier Ltd
234. Wernstedt, K Meyer, P.B Alberini, A. (2006) Attracting private investment to contaminated properties: The value of public interventions, *Journal of Policy Analysis and Management* 25(2): 347–369
- We employ a mail survey of private developers that uses conjoint choice experiments and Likert-scaled attitudinal questions to examine preferences for policy instruments and incentives intended to encourage brownfield cleanup and redevelopment. Our analysts suggests that developers judge public hearing requirements at brownfield redevelopments unattractive, but that they place a relatively high value on liability relief - from both cleanup costs and claims by third parties. Reimbursement of environmental assessment costs is not particularly attractive. We also find considerable heterogeneity among developers in the value they place on these incentives, depending on their experience with contaminated sites. © 2006 by the Association for Public Policy Analysis and Management.
235. White, J. T. (2016). "Pursuing design excellence: Urban design governance on Toronto's waterfront." *Progress in Planning* 110: 1-41.
- This paper explores the governance of urban design on Toronto's waterfront. It examines the formation, mandate and powers of the Toronto Waterfront Revitalization Corporation (TWRC) – now branded Waterfront Toronto – and critically evaluates the urban design policies, tools and mechanisms that have been put in place to support waterfront redevelopment and pursue a goal of 'design excellence' since 1999. The paper traces the key decisions that led to the creation of the TWRC by the federal, provincial and municipal governments and details the ambitious planning and design vision that emerged for the waterfront, but also argues that the TWRC was awarded a limited

institutional mandate to fulfil its aims and objectives. The latter sections of the paper describe how a series of design-sensitive tools and mechanisms were introduced alongside the statutory planning framework for the waterfront to counter the governance and financial challenges faced by the Corporation. The paper contends that the Corporation is currently overseeing a broadly positive redevelopment programme that has been able to deliver a high quality public realm on the waterfront and facilitate design-led real estate development. An innovative public engagement strategy has been coupled with neighbourhood 'precinct' planning and design peer review to achieve these outcomes. It is argued that these positive shifts have begun to counter the long history of faltering post-industrial development and 'jurisdictional gridlock' that has plagued Toronto's waterfront since the 1960s. © 2015 Elsevier Ltd

236. Wolfram, M. (2016). "Conceptualizing urban transformative capacity: A framework for research and policy." *Cities* 51: 121-130.
- Cities play a crucial role in shaping coupled human-environment systems at local and global scales. With a view to amounting sustainability deficits, urban stakeholders thus require transformative capacity to perform radical change within and across the multiple socio-ecological and socio-technical systems embedded in cities. However, existing (transformative) 'capacity' concepts refer to distinct subjects and purposes and do not adequately address the particularities of urban contexts and/or practical operationalization. Therefore, this paper suggests an integrated conceptual framework for developing 'urban transformative capacity', drawing on contributions from a range of research areas. It identifies 10 key components and a range of factors that describe the forms of agency and interaction, development processes and relational dimensions involved in building up urban transformative capacity, emphasizing the vital role of place and scale in this. It thus establishes a baseline and direction for capacity growth. This allows recognizing the particular requirements and assets of diverse types of cities and urban contexts in the global North and South, and offers strategic orientation for urban policy making, planning practice and research. © 2015 Elsevier B.V.
237. Wood, R. and J. Handley (1999). "Urban waterfront regeneration in the Mersey Basin, North West England." *Journal of Environmental Planning and Management* 42(4): 565-580.
- The economic decline of traditional dockland areas has released considerable areas of land for redevelopment, much of which is close to the heart of city centres. The property development industry has capitalized upon these assets to the extent that port-related redevelopment is a common feature throughout North America and Europe. This paper explores the experience of the Mersey Basin in North West England which, under the Mersey Basin Campaign initiative, has sought to explicitly connect improvements in water quality to economic regeneration. A small survey of commercial

property valuers was used to explore this relationship and revealed the importance of water in the property development process, through potential increases in value and an enhancement of the marketability of property adjacent to water. Equally, improved water quality is revealed as an important precursor to waterside economic regeneration. Here, investment must, as with the preparation of derelict and contaminated land for redevelopment, be regarded as a public good, nurturing good water quality as an asset for the benefit of future generations and as a part of realizing the full potential of waterfront regeneration.

238. Zhu, Y., et al. (2015). "Establishment and optimization of an evaluation index system for brownfield redevelopment projects: An empirical study." *Environmental Modelling and Software* 74: 173-182.

- Brownfield redevelopment has recently become the focus of attention of governments, communities, environmental advocates, scientists, and researchers around the world. The purpose of this study is to provide a framework for establishing and optimizing an evaluation index for brownfield redevelopment projects (BRPs). This framework involves three steps: the initial design, testing and optimization, and verification. With the help of two standard statistical software packages, the reliability and validity of the initialized index system are established, and then the optimization of the initial index system is carried out by means of Factor Analysis. The effectiveness of the optimization of the index system is verified through Structural Equation Modeling. Furthermore, an illustration example is used to show how to apply the established index system in the real world. © 2015 Elsevier Ltd