

A model to address marginality of the architectural profession in the South African discourse on informal settlement upgrade

VOLUME 2

Submitted by

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Proposal submitted in fulfilment of part of the requirements
of the degree of
Philosophiae Doctor in Architecture
in the Faculty of
Engineering, Built Environment and Information Technology

May 2015

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Chapter 5

Case Study: Application of Community Action Planning at a South African school of architecture

The act of observing influences what is being observed – even at our most un-intrusive, we influence the phenomenon we are studying Ely (1991:47).

5.1. Introduction

Community Action Planning (CAP) has been investigated as a platform of engagement that may serve to address the marginality of the architectural profession in the discourse on informal urbanism. From this investigation, it was proposed that the key factors contributing to the marginality would be more comprehensively addressed through an augmentation of the CAP to include focused needs assessment strategies, network analysis, participatory GIS, collaborative design as well as an embrace of community architecture.

Outcomes of student work undertaken at the University of Pretoria (UP) Department of Architecture Honours programme between 2010 and 2013 will serve as a case study to investigate the application of CAP and its proposed augmentation. The ability of students to assimilate the methodology and address key factors contributing to marginality will be considered. The case study is a documentation of a heuristic process where CAP was introduced incrementally and exploratively. The increased focus on the method resulted in an increased ability of the students' work to address a greater number of the key factors contributing to marginality.

The research method employed falls within the arena of qualitative research which, according to Rossman (2003) has its roots in phenomenology and hermeneutics, is conducted in natural settings rather than under controlled circumstances and is aimed at making sense of social phenomena through what is seen and heard, thereby questioning the *structure and essence of the lived experience and questioning the conditions that shape interpretations of human acts or products* (Rossman 2003:8).

Qualitative research is seen as a counterpoint to the controlled environment of a laboratory, and has its value in its engagement with the messiness of the lived world. Several characteristics are described:

- *Takes place in the natural world*
- *Focus on context*
- *Emergent rather than tightly pre-figured; open-ended*
- *Fundamentally interpretive*
- *View the social world holistically; unified experience*

- *Systematically reflects on self*
- *Sensitive to personal biography*
- *Use of complex reasoning*
- *Focus on how respondents make sense of their own circumstances*
- *Prolonged contact; continuing process*
- *Learn by Doing*

(Ely 1991:4–18; Groat 2002:176–179; Rossman 2003:8-10)

As part of the qualitative research process, Rossman (2003) points out that certain conditions must be taken into account, such as comfort with ambiguity; developing a capacity to articulate logic behind decisions; deep interpersonal and emotional sensitivity; political sensitivity; perseverance and the ability and awareness of when and how to bring closure.

Within the qualitative research arena, a distinction is made between the paradigm or perspective underlying the study and the genre that organises the method of data capture. The paradigm is considered to reflect the bias of the researcher underlying the purpose of the research:

- **Positivism** (*Status Quo + Objective*): *A rational and ordered social world is assumed; an improved organisational functioning is explained with an attempt at objectivity. This approach is seen as pragmatic and instrumental.*
- **Interpretivism** (*Status Quo + Subjective*): *The status quo is assumed and understood by means of the individual experience. This is based in interviews and observation and is not predictive.*
- **Critical Humanism** (*Radical Change + Subjective*): *Individual consciousness is seen as the agent of empowerment, transformation and liberation. The social world is viewed as dominating and oppressing, where the researcher becomes explicitly participatory. This paradigm exists within the critical theory framework.*
- **Critical Realism** (*Radical Change + Objective*): *Political and economic structures, rather than individual consciousness, inform this paradigm. Radical social change arising from crises in the basic social system is researched and can be more reliant on quantitative data gathering (Rossman 2003:45).*

Although literature alludes to various genres of qualitative research (Coffey 1996; Ely 1991; Groat 2002; Rossman 2003), one can see that it is in the layering of these various types of research that the *thick* description (Geertz 1973) or understanding of the complexity within an informal settlement can be found.

- **Ethnographies:** Includes the documentation of social actions, an understanding of the organisation in social patterns and the relation of these to a particular setting. A distinction can be made between the insider's view (hence the participatory aspect of the research) and the researcher's analytic framework within which this information is collected.
- **Phenomenological studies:** Such studies assume a prolonged, in-depth and iterative engagement, documenting the lived experience of a small group of people. The value of story-telling, narrative, life history is captured in dialogue and reflection.
- **Socio-economic studies:** These studies seek to document communicative behaviour in order to understand how words and actions are used to convey or interpret meaning. Systems of signs or symbols are noted and analysed in order to develop a *text* describing the social environment.
- **Case studies** are considered to be both a genre as well as a strategy for qualitative research, in which an understanding of a larger phenomenon is sought through the intense examination of a specific example.

The case study informing this thesis falls within the ambit of action research as described by Argyris and Schon (Anderson 1994; Smith 2013) where the heuristic process of exploration is supported by critical and iterative reflection following every year of engagement in the field. In terms of qualitative research, the study is situated in the arena of critical humanism, where the current relationship between the architectural profession and informal urbanism is questioned. The work undertaken by the students informs this research by originating from the bias embedded in current architectural curricula. Simultaneously, the process serves to develop a new model for engagement that may contribute to a transformation in the approach to architecture in the context of informal settlement upgrade.

Ethics concerns

Inherent to the field of qualitative research, is the issue of ethical concerns regarding the

subjects of the research. As indicated by Ely (1991:47):

The act of observing influences what is being observed – even at our most un-intrusive, we influence the phenomenon we are studying.

Due to the fundamental reliance on contextual authenticity and the intimate level of observation, this consciousness and sensitivity to the potential hazards posed by such research ought to be considered.

Participatory research, although dependent on the willing participation by the research subject, usually implies a process induced by an external party. Data gathered in this way may expose the subjects of the study to control, manipulation or exploitation. For this reason, it is considered good practice to obtain informed consent from the participants, following a detailed explanation of the proposed study and its outcomes (Rossman 2003). The ability to withdraw from such a process at any time without prejudice is considered fundamental to the freedom of the research subjects' participation.

The issue of research ethics is not raised by the *CAP Wall Chart*: how respondents are informed of the process, whether they are required to give consent to the use and interpretation of the information is not stated. There seems to be an inherent assumption of goodwill and compliancy, which is not expanded upon by Goethert and Hamdi's further writings. It is not clear whether the information gathered can be considered to be the intellectual property of the research team or the community who are participating. Due to the easy flow of observation (Hamdi 2010:23), proposal and eventual consensus, the lines of authorship are purposefully blurred so that all participants, expert and community members alike, are seen to have a vested interest in the outcome. Goethert and Hamdi (1988:27) do however, argue that as information is only required as a reference to identify key problems and is not necessary for its own sake, it remains internalised. It is not extracted and therefore is not seen as an ethical problem. Such information accordingly comes with its own values and remains non-political.

In such a situation where the research method is closely linked to an outcome that becomes the property of the research subjects, it remains unclear whether a formalised informed

consent process is required. Effectively the research team is assisting the community of the settlement to create a greater understanding of their own potential, thereby benefiting directly from their own research and participation. It may be argued therefore, that no ethical issues are raised, as the object/subject divide is nullified as an integral part of the process. Should this information, however, be made accessible on a GIS-platform or web-interface, or for the purposes of academic dissemination, the matter of public exposition of intimate local knowledge once again becomes problematic.

Shack Dwellers International (SDI) proposes a strong support of yet another aspect of this issue, namely community-led research initiatives in the form of self-enumeration. Seen as an opportunity to *develop a critical collective identity that helps form the political basis for their engagement with government* (Patel 2012:14), community federations embrace such qualitative as well as quantitative research methods that render them visible to structures of authority. Three kinds of enumeration are cited, namely settlement profiles, household surveys and vacant land surveys. Similar to the documentation process as described in the CAP, community organisations undertake the mapping of their settlement and the documentation of this information in the form of rough community maps through to sophisticated GIS platforms, making use of all available and possible resources to achieve this (Patel 2012).

The household survey entails the voluntary proffering of information such as the physical marking of informal structures on a cadastral map, supported by a family identification card and family photo related to this address and documented on a settlement register, along with other relevant demographic information. As much as Patel (2012:21) has noted the success such registers have had in the legal battles against eviction and displacement, it is not without its concerns:

One downside of sharing data with the state is the possibility that the data will be used against the poor. Eviction notices can result and this is a strong fear for many informal residents; in many ways, they see invisibility as a shield against eviction. This can only be faced by organising settlements as a whole and creating strong federations that can withstand these threats and negotiate instead for solutions

and development investment. This places a great deal of responsibility on the national SDI affiliate to ensure that they strengthen local and city federations while taking on enumeration and surveys. Even well intentioned professionals cannot guarantee that the information they collect on informality will not be misused.

The ethical issues related to participatory action research remain fluid for obvious reasons. Whether the paradigm of engagement is based in the realm of radical change or observation of the status quo, informal settlements embody a condition of emergence in which there are no absolute rules or parameters of predictability. Although Goethert & Hamdi (1997) do not address the issue of ethics directly, it is a point of consideration in this thesis. Whether the research is undertaken by an external party, at the behest of the community or emanates from within the community itself, it is important to consider the vulnerability of such residents who are already living under precarious social conditions.

Course structure

The academic modules that will serve as the case study under investigation fall within the Bachelor of Architecture (Honours) course at the University of Pretoria Department of Architecture. The course resides in the research field of Human Settlements and Urbanism. The Research Field Project (RFP 721) is a 20 credit research and design studio module, with the accompanying 6 credit module Research Field Study (RFS 720) providing the theoretical support for the studio work:

Investigation into housing issues, social structures pertaining to residential and housing provisions and the legal and financial obligations regarding the provision of housing. Relevant theory will be matched to the individual programme of Architecture: urban theories and principles are investigated in order to establish a relevant language for our local and continent's problems.

Urban problems and the research of various economic, social and design influences on the making and renewal of our cities are investigated. Good urban design principles and cultural and global issues that shape

our built environments are investigated. The course's aim is the promotion of a fair and just city to all its citizens through a process of understanding the public realm and the rules of associating the various elements of the city structure (UP 2014)

Research sites

Slovo Park, Johannesburg

Slovo Park informal settlement consists of over 5 000 households living on 1 052 informal stands. Each stand is approximately 250 m², with multiple households living on each stand. The settlement is situated next to the Nancefield Industrial Area between Nancefield, Eldorado Park and Bushkoppies in Region G, Johannesburg. According to the City of Johannesburg's Regional Spatial Development Framework (RSDF) 2010/2011: Administrative Region G, Slovo Park is situated in Sub Area Three of Region G, which consists of the Greater Eldorado Park area (Eldorado Park Extensions 1– 10), Eldorado Estate, Nancefield, Nancefield Extension 1 and half of Kliptown (the other half is in Region D, which borders on Region G and includes a large portion of Soweto).

Slovo Park is situated on the Remaining Extent of Portion 33 of the Farm Olifantsvlei 316 IQ, which borders on the N12 Moroka Bypass to the north, Cavendish Street to the east and Stockwell Avenue to the south. The settlement covers approximately 47.4632 hectares (ha) and most of the occupied land is publicly owned, with much of the surrounding land owned by the Gauteng provincial government. The settlement has approximately 4 communalstandpipes per informal street, and 1 050 Ventilated Improved Pit Latrines (VIPs). According to the Slovo Park Community Development Forum (SPCDF), VIPs were installed in 2005 in each yard, with residents being told that they were temporary and would be convertible to flush toilets when formal development occurred at the settlement.

The 2010/2011 RSDF provides some illuminating information on the current formal status of the settlement within the urban management framework, including its categorisation as per the City's informal settlement formalisation programme. In terms of the latter, Slovo Park is placed in Category 1: Informal Settlement Upgrading, with the status quo as "Draft Layout Plan."

The RSDF puts the number of households at Slovo Park at 1 052. The RSDF further notes that

Slovo Park is located next to the Nancefield Industrial Area and that low-cost housing as well as informal settlements compete with business for industrial land. According to the RSDF, “in this Sub Area informal settlements have located themselves on prime vacant land right on the border of the Nancefield Industrial Area. Thus expansion and intensification of the Industrial use is constrained.” The RSDF further states, “geotechnical studies have revealed dolomite in the area. Thus half of this sizable informal settlement (Slovo Park) will have to be relocated, as housing can only be provided for approximately 700 units on the developable land available.” Further on in the document, a number of key issues and priorities for the Sub Area are identified including “the relocation of Slovo Park Informal settlement residents due to dolomite and subsequent use of the land” and the need to “identify the availability of suitable land to fast-track the relocation of Slovo Park settlement from the high-risk dolomitic land” (Tissington 2011:22).



Figure 5.1: Locality plan of Slovo Park indicating position within greater Johannesburg metropolitan area (Buchner 2012)

ALASKA



Figure 5.2: Locality plan of Alaska

Alaska, Pretoria

To the far eastern edge of the township of Mamelodi in Pretoria, defined by the Magaliesberg mountain ridge and the Pienaarsriver, the southern slope of the mountainside has been occupied by informal settlers since 2009. The settlement evolved over a very short space of time, apparently benefiting from services available in the adjacent government housing development of Lusaka. The layout of the settlement is orthogonal to the contours, with steep pedestrian routes that are easily eroded due to the severe storm-water run-off. Plots are small (50m²), with individual freestanding structures as terraced platforms. Access to Mamelodi and employment opportunities within Pretoria are impaired due to the congested traffic routes that do not have enough capacity to serve these peripheral areas. Typical pendulum migration patterns characterize the area, with commuting times between 4 and 8 hours considered to be the norm.

Viva Village

The Viva Foundation is a faith-based NGO located within Alaska that has been established with the aim of providing various services to the residents of the informal settlement:

One of the primary goals of the Viva Foundation of South Africa is the establishment of service hubs within informal settlements, as a means of reaching the vision of transformation of high priority poverty areas by meeting the felt and expressed needs of the community. Being instrumental in transforming the informal settlements into thriving neighbourhoods where young and old can find education, recreation, work and business opportunities is the solution-driven approach of the Viva Foundation. The Viva Village in Alaska Informal Settlement, Mamelodi East, South Africa, is the pilot project and a concept that has evolved from its seed phase into what it is today. The Viva Village is also used by the University of Pretoria as a hub for outreaches to the community from different faculties including the Nursing Sciences as a Health Post. The Viva Village was built- and is operated by Volunteer hands and with the involvement of many strategic partners. (Viva Foundation 2014).

The case study involves a chronological documentation of the work produced by students enrolled for RFP 721 between 2010 and 2013 working in these two informal settlements:

- 2010: Slovo Park, Johannesburg
- 2011: Alaska, Pretoria
- 2012: Slovo Park, Johannesburg
- 2013: Alaska, Pretoria and Slovo Park, Johannesburg

In addition, the physical upgrade of the community hall in Slovo Park that was undertaken by the students who had been enrolled for RFP 721 during 2010 provides an extension of the application of CAP principles that is documented for its relevance to the investigation. Certain outcomes of a workshop series conducted in Slovo Park during 2011 are included for its impact on the further development of the RFP 721 module.

Key factors addressed in each iteration were documented, from where it could be ascertained whether this platform of engagement can be assimilated by students of architecture in proposing to mitigate the marginality of the profession in the discourse on informal settlement upgrade.

5.2. 2010 RFP 721 (Slovo Park, Johannesburg)

5.2.1. Research and design studio

5.2.1.1. Number of students enrolled

For this first engagement with the residents of Slovo Park, five architecture students and one landscape architecture student volunteered to participate in the course.

5.2.1.2. Site of engagement, history and relationship with community

Following a Human Settlement Symposium in Johannesburg in November 2009, introduction was made to Mr Patrick Magebula of the Federation of the Urban Poor (FEDUP) by the then Minister of Human Settlements, Mr Tokyo Sexwale. From this meeting, the introduction to the leadership of the Slovo Park Community Development Forum (SPCDF) occurred through the Gauteng representative of the Community Resource Centre (CORC), Mr Max Rambau. Telephonic arrangements preceded the first meeting between the students and the community leadership on site at Slovo Park. The community structure was therefore clearly in place and had representational authority to liaise with the students.

5.2.1.3. Student brief and assignments

For the first encounter, no formal brief was developed. An inherited course structure described within the research field of Housing and Urban Environments (HUE) included a group development of an urban framework, as well as individual design proposals (Addendum 5.1; 5.2). The course was taught concurrently by architects and urban designers, with theoretical support in terms of urban design and the principles of *Residential Open Building* derived from the writings of Habraken (1972, 1998). The existing module was not specifically developed for engagement in informal settlements, although there was a history of several successful student interventions specifically in Mamelodi, Pretoria (Addendum 5.1). The course was therefore open to augmentation in terms of further investigation of a methodology specific to informal urbanism. Due to the open-ended nature of this course structure, the parameters of engagement by students could occur in the space of critical evaluation by all parties concerned, rather than in a strictly pedagogical construct of expected outcomes. This serves as a positive environment for evolution, simultaneously compromising the possibility of replication.

5.2.1.4. Schedules: Studio, assessment and community interaction

A broad outline of design milestones from urban design framework to building resolution was proposed within the six week timeframe of the module. Several visits to the site were undertaken during the six week period, with students engaging with the residents of the settlement spontaneously of their own accord.

5.2.2. Theoretical support

5.2.2.1. Reading list

Concurrently with the engagement in the settlement of Slovo Park, the newly published *Placemaker's Guide to Building Community* (Hamdi 2010) was consulted as a primary reference. Seminar-style reading and discussion occurred on a weekly basis, providing direction in the methods employed in the field. Further to this, the RFS 720 module provided background to an understanding of theoretical discourse in architecture and urbanism. The course was concerned with viewing film as an additional lens of understanding and representation of design (Addendum 5.3). Students were therefore encouraged to be experimental in their investigations as well as in the representation of their proposals, with the underlying principles of active engagement as described by Hamdi (2010).

5.2.3. Reflection on the application of CAP methodology

5.2.3.1. CAP wall chart: Introduction

The introductory format proposed by CAP (Table 5.1) was not fully adhered to, as the student engagement process was intended to be exploratory rather than prescriptive. The first visit to site therefore occurred between the students, the studio lecturer and three members of the SPCDF. During the first introduction, accompanied walks through the settlement allowed the small group an opportunity for visual familiarisation with the context and the establishment of a line of communication between the students and the community leadership (Figure 5.3; 5.4).



Figure 5.3: Student in conversation with SPCDF leaders in Slovo Park informal settlement (Bennett et al 2010)



Figure 5.4: Lecturer and students accompanied by SPCDF leader, capturing visual documentation on first day of engagement (Bennett et al 2010)

Table 5.1: Application of CAP wall chart Introduction to RFP 721 (2010)		
CAP methods applied?		Reasons?
Participants		
√	Community members	Introduction to SPCDF leaders by way of FEDUP and CORC Gauteng structures
x	Gvt representatives	
x	NGO's	
√	Workshop moderator	Role assumed by UP Honours students and lecturer
Arrangements		
x	Objectives	
x	Commitment	
x	Goals	
√	Location	On site in Slovo Park informal settlement
Materials		
x	Presentation	
x	Tables and chairs	
x	Base plans	
x	Folders	
√	Cameras	Students made use of own cameras for visual documentation
Event		
x	Refreshments	
x	Reception	
x	Invitations	
x	Certificates	

5.2.3.2. CAP wall chart: *Statement of Problems and Opportunities (+Needs Assessment & Network Analysis)*

Formal presentations by planners or other built environment professionals were not included into the process (Table 5.2). Reports describing the development constraints impacting on Slovo Park were supplied by the Slovo Park Community Development Forum (SPCDF) and the Socio-Economic Rights Institute of South Africa (SERI) only during the following year, after the initial relationship between the University of Pretoria (UP) students and the community had evolved into one of mutual trust.

Municipal guidelines and spatial development frameworks that are publically available were consulted as part of the students' background information regarding the site and its relationship to the city (Addendum 5.4).

Conversations between the students and residents led to spontaneous narration by some of the elders in the community, relating the stories of Slovo Park's origin, problems they encounter with regard to the lack of services and their daily struggles for survival. Despite the unstructured nature of these conversations, similar concerns regarding problems as well as opportunities within the settlement were raised, affording this small group of students the opportunity of developing a consistent impression of the settlement within a short space of time.

Photographic and video documentation served both to capture impressions of the settlement made upon students as well as the opportunity to reflect their analysis and proposals back to the community (Figure 5.5). Interactions varied from individual conversations during intermittent visits to the settlement to mass meetings of the resident community, where proposals were presented and discussed. The process was captured and documented by the students who undertook this first engagement in Slovo Park: Jhono Bennett, Jacqueline Casson, Claudia Filipe and Isabel van Wyk .

From these informal encounters, a community perspective of Slovo Park's history and main issues of concern could be derived:

Slovo Park came into being in the early 1980s, during which time the area of Nancefield was undergoing continuous subdivision. The land originally the portion of the farm Olifantsvlei 316-IQ, was a vacant reserve, earmarked for industrial development.

Many of the property owners in Nancefield Industrial, speak of the beginnings of the community. Mr Mapara, the founder of Slovo Park, still speaks of the difficulty of getting the area serviced. The first standpipes in Slovo Park, which still stand, were facilitated by a partnership with the Nancefield Industrial business forum, a relationship which still exists to this day.

In 1994 the community made a bold move in initiating the first steps in formalizing their community. Mr Mapara, set out a street grid, borrowed from adjacent Eldorado Park, to which plots were subdivided and homes voluntarily demolished and rebuilt in support of the community's greater vision. The settlement is ready and prepared for services, awaiting government's mobilization. The community is a sustainable and thriving neighbourhood, with workshops, crèches, soccer leagues, HIV support groups, community forums, business forums, and previous partnerships with NGOs concerning travelling clinics and libraries (Bennett, Casson, Felipe & van Wyk 2010:13).



Figure 5.5: Community issues noted through unspecified encounters, informal conversations and photo documentation (Bennett et al 2010)

Table 5.2: Application of CAP wall chart Statement of Problems and Opportunities to RFP 721 (2010)		
CAP methodology applied?		Reasons?
Context		
x	Professional speakers	
x	Notes of key issues	
Community issues		
x	Overview by planner	
√	Community representative	Community issues ascertained through unspecific encounters with residents on site
Community observations		
√	Look and listen	Observations and informal conversations with residents on site
√	Talk and write	
√	Review problems	Oral narrative by community members
Augmentation to Statement of Problems and Opportunities		
x	Testimonio	
x	Image of Home	
x	Human Scale Development Matrix	
x	Network Analysis	

5.2.3.3. CAP wall chart: Documentation of Key Information

Base maps and aerial photographs required for the *Documentation of Key Information* (Table 5.3) were obtained from the City of Johannesburg, that served as tools of communication

between the students and the community to establish a variety of facts ranging between preferred access routes to the location of crèches, *spazas* (tuckshops), *shebeens* (taverns), hair salons and churches within the settlement. The location of schools and larger retail outlets in the adjoining township of Eldorado Park revealed a significant urban interdependence between Slovo Park and Eldorado Park, which is serviced mainly by means of pedestrian access.

During this first engagement with Slovo Park, the students established that the dependence of Slovo Park on the neighbouring Eldorado Park and adjacent Kliptown played an important role in the livelihood and frustrations of its residents (Figure 5.6; 5.7; 5.8; 5.9; 5.10; 5.11). The isolation of Slovo Park from the economic and institutional activity of Eldorado Park impacts significantly on the continued poverty entrapment and security concerns of the residents. This isolation is ironic both in the prevalence of the bus route around Slovo Park that does not service the settlement; electric servitudes running through the settlement from which no service is supplied as well as the existence of a main sewer line under the settlement to which they are not connected. Schools and clinics as well as retail facilities are attended in Eldorado Park, mostly accessed by pedestrian routes.

The adjacent industrial area of Nancefield as well as Eldorado Park offer employment opportunities and benefit from the labour pool in Slovo Park, continuing a cycle of co-dependence and exploitation.

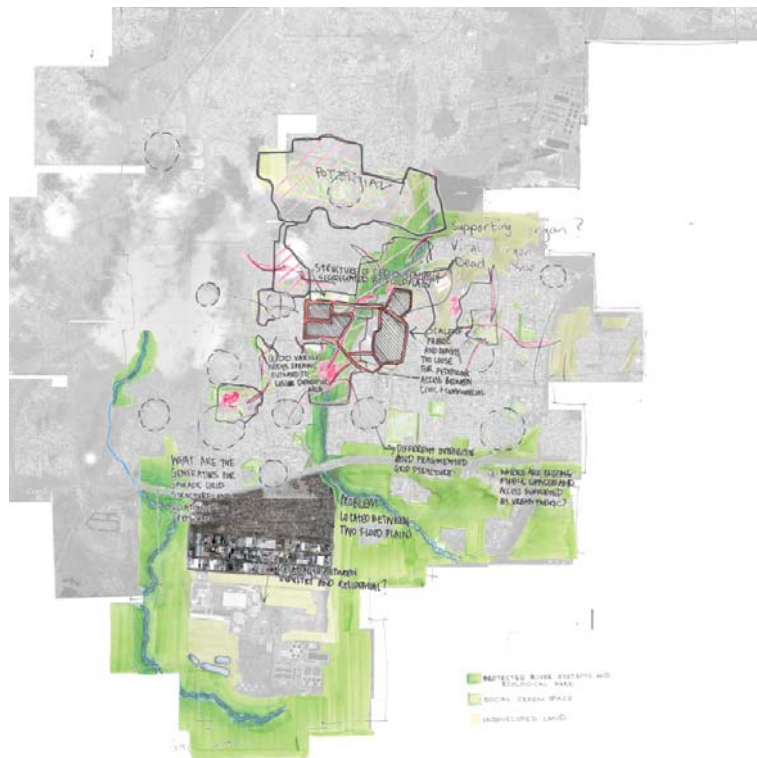


Figure 5.6: Visual documentation and mapping of open spaces (Bennett et al 2010)



Figure 5.7: Visual documentation and mapping of informal and formal grid patterns (Bennett et al 2010)



Figure 5.8: Visual documentation and mapping of public transport routes (Bennett et al 2010)

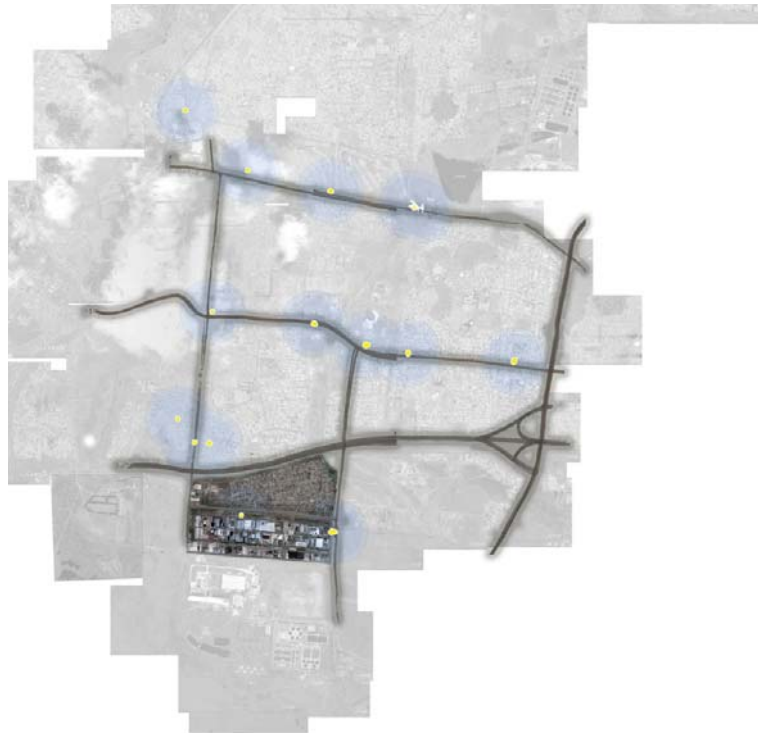


Figure 5.9: Visual documentation and mapping of taxi stops (Bennett et al 2010)

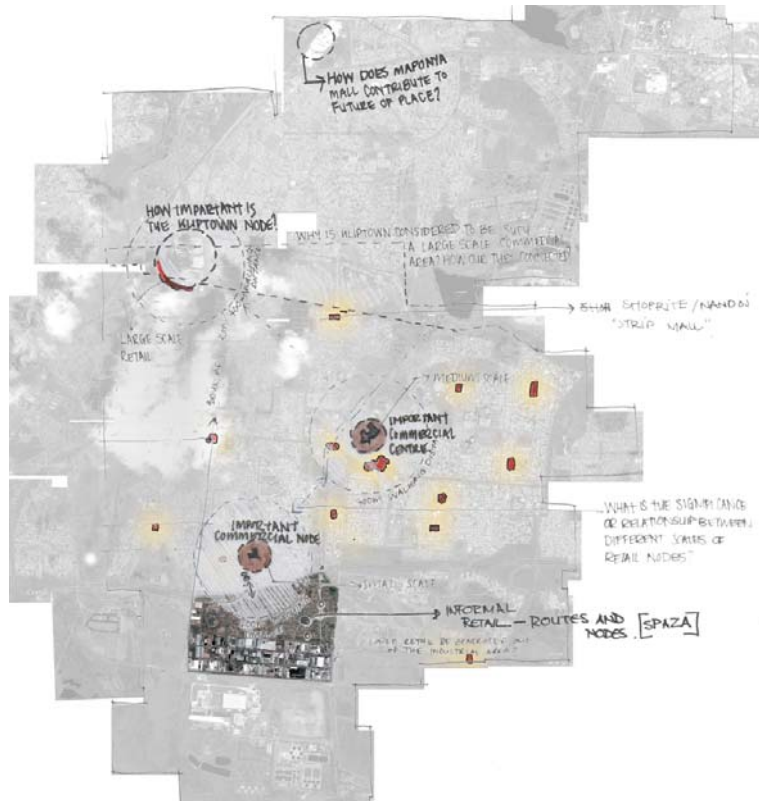


Figure 5.10: Visual documentation and mapping of retail spaces (Bennett et al 2010)

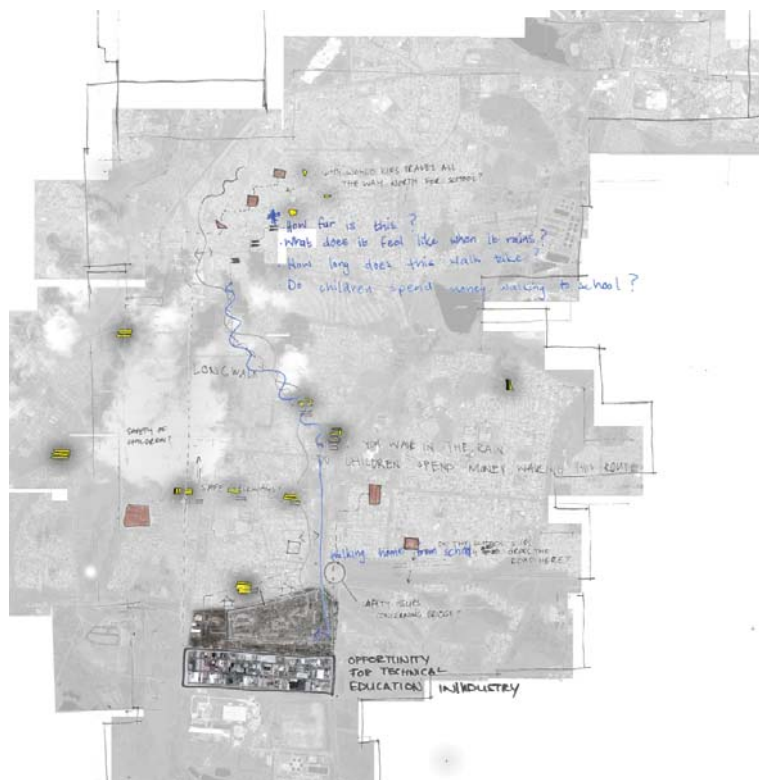


Figure 5.11: Visual documentation and mapping of schools (Bennett et al 2010)

CAP methodology applied?		Reasons?
Table 5.3: Application of CAP wall chart Documentation of Key Information to RFP 721 (2010)		
Base Plan		
√	<i>Site plan</i>	Site plan obtained from Jhb municipality, overlaid by Google Earth images
√	<i>Agree on scales of information</i>	Scale of information varies between settlement-specific information and information relating to connectivity with greater metropolitan area
√	<i>Indicate public uses</i>	Public uses and amenities indicated
√	<i>Indicate public access</i>	Public and facilities documented
x	<i>Relative land values and potential</i>	
√	<i>Circulation, access routes, site boundaries</i>	Circulation and routes specific to settlement boundaries documented
Spatial Physical Elements		
√	<i>Document existing conditions</i>	Existing conditions documented on maps and photographs
√	<i>Document proposals from existing Masterplans</i>	Jhb Council Master Plan maps and framework documents consulted (Appendix)
√	<i>Document infrastructure services</i>	Lack of infrastructure documented: Roads, Electricity, public transport
Non-physical elements		
x	<i>Document existing conditions</i>	
x	<i>Document proposals from existing Masterplans</i>	
x	<i>Indicate political boundaries, community territories</i>	

5.2.3.4. CAP wall chart: Making Community Map (+PGIS)

In the process of making the community map (Table 5.4), community representatives were regularly met on site, without any formal meeting spaces allocated. Community concerns and opportunities, patterns of use, identifying characteristics and dwelling types were documented, with description of their physical characteristics, family story, dimensions and uses (Figure 5.12; 5.13; 5.14; 5.15; 5.16; 5.17).

Presentation skills varied between students, but was generally considered to be at a high level of sophistication. No limitation was placed on the choice of media and the ability to make use of anything from cardboard models to quirky information graphics indicated an ability to communicate visually, both in the academic context as well as under difficult circumstances in the field.

The conditions under which ideas could be communicated to the community challenged all the students' known methods of documentation that were aimed at controlled studio circumstances. Having to present to a large group of people who are not all fluent in English, on a dusty traffic intersection on a Sunday afternoon, offered a tangible example of how these methods of presentation required reflection in terms of future presentation and methods of communication.



Figure 5.12: Meeting with residents on site with aerial photographs of the settlement, marking use patterns, concerns and opportunities (Bennett et al 2010)



Figure 5.13: Aerial photograph of Slovo Park in broader context with stickers applied by community members indicating places of interest (Bennett et al 2010)



Figure 5.14: Aerial photograph of Slovo Park informal settlement with places of interest marked by community members (Bennett et al 2010)



Figure 5.15: Panorama view of streetscape in Slovo Park (Bennett et al 2010)

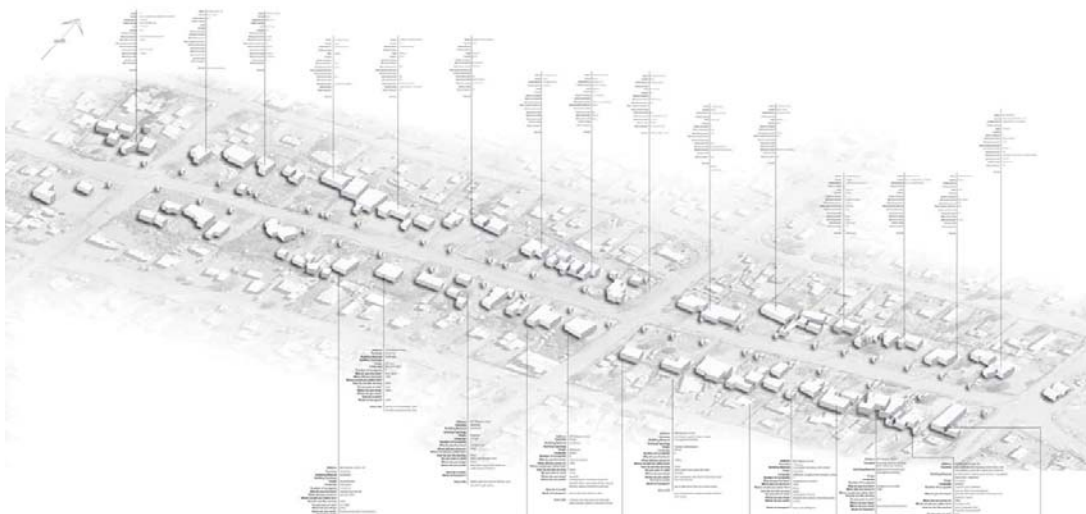


Figure 5.16: Axonometric representation of street in Slovo Park with family story attached to

individual households (Bennett et al 2010)



Figure 5.17: Documentation of dwelling typologies, family story, physical characteristics, dimensions (Bennett et al 2010)

Table 5.4: Application of CAP wall chart Making Community Map to RFP 721 (2010)		
CAP methodology applied?	Reasons?	
Complete Base Plan		
✓	Meet with community on location	Meetings held in tavern on site with SPCDF members
✓	Map community concerns and opportunities	Community members indicate concerns and opportunities marking relevant places with stickers on aerial photograph
✓	Patterns of use	Use patterns, access routes, security risks marked on map
Dwelling typologies		
✓	Document use; plot sizes; tenure; building types	Compiled documentation of dwelling typologies specific to main arterial street including dimensions, family story, construction sequence, photographs and sketches
✓	Document family story, past and future expectations	
✓	Describe physical characteristics	
✓	Plot plan: dwelling, uses, dimensions	
✓	Photograph or sketch of dwelling	
✓	Table of basic data	

Augmentation to Making Community Map

x	PGIS
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5.2.3.5. CAP wall chart: *Set of Actions and Related Tasks (+Collaborative planning)*

The urban design framework (Figure 5.18) developed by the students during the module became the visual representation of this stage of the CAP (Table 5.5). The proposed framework sought to address the urban discontinuity by proposing an urban agricultural belt along the stream connecting Eldorado Park to Slovo Park. Conceptually a greater interdependence between the settlements was proposed, simultaneously addressing pedestrian security concerns, edge definition, incremental growth and an improved livelihood opportunity:

- Slovo Park and Nancefield Industrial were proposed as a major node in a public transport route
- A safe pedestrian route to Kliptown was proposed
- Klipspruit was identified as a sacred landscape, connecting the culturally significant cemeteries as important spaces within the context
- Incremental definition of Mapara Street and the existing community hall was proposed
- A partnership between Slovo Park and Nancefield Industrial was proposed

Most of the time allocated to the course was taken up by the analysis, the fieldwork and the group development of the urban framework.

Due to the thoroughness of the group urban design framework, the students were individually able to respond to the circumstances successfully with regard to the identification of proposed sites of intervention. The sites related to the macro framework and would serve to strengthen the interconnectedness between Slovo Park and its surrounds.

Table 5.5: Application of CAP wall chart <i>Set of Actions and Related Tasks</i> to RFP 721 (2010)		
Identify and prioritize actions		
√	<i>Decide actions & related spatial & non-spatial interventions</i>	Proposed urban design interventions aimed at alleviating the lack of connectivity between Slovo Park informal settlement and the surrounding areas
x	<i>Prioritize interventions: need, feasibility and political viability</i>	
x	<i>Consider consequence & grouping in terms of input and goods</i>	
Augmentation to <i>Set of Actions and Related Tasks</i>		
x	<i>Collaborative Design</i>	

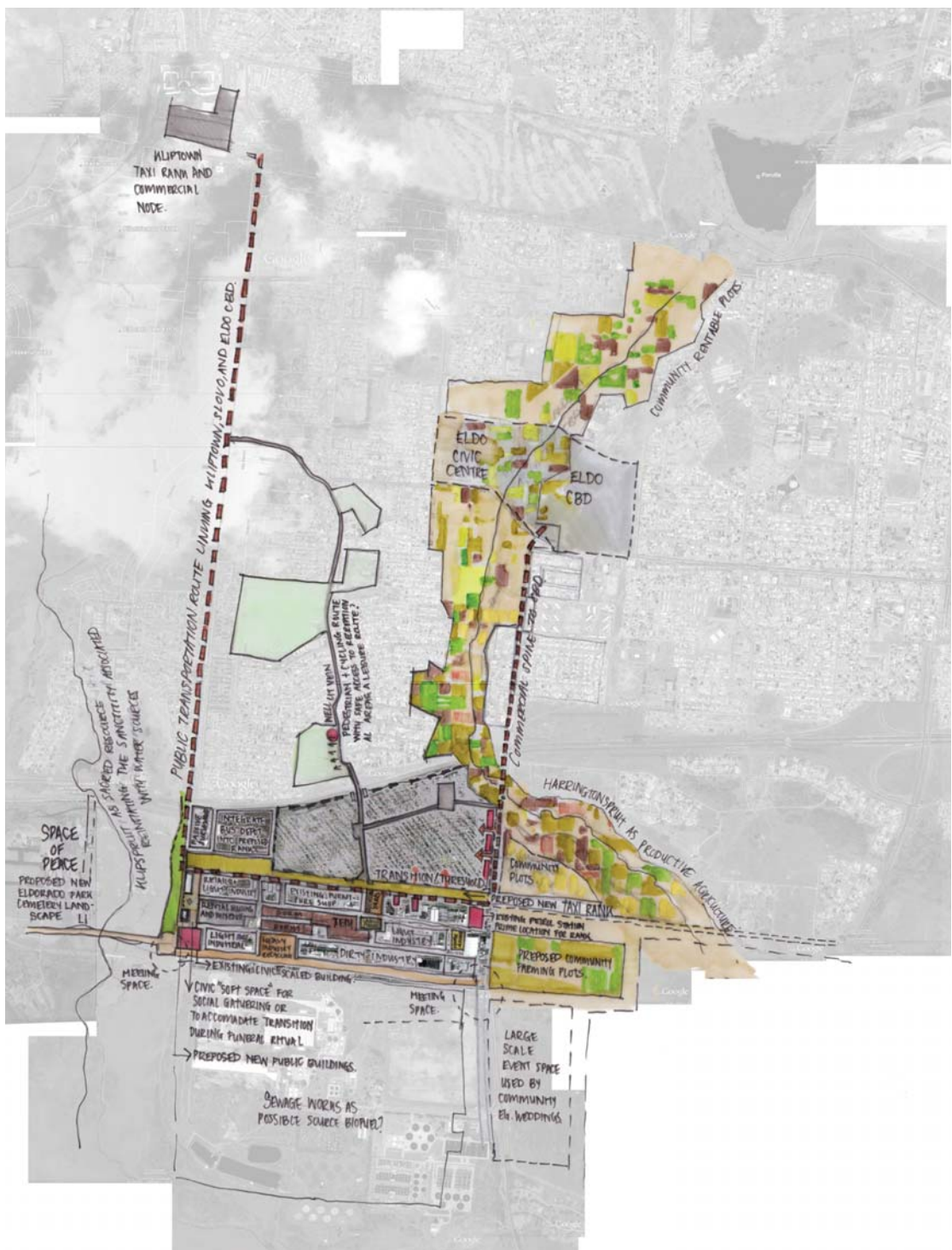


Figure 5.18: Proposed urban design framework focused on connectivity between Slovo Park settlement and surrounding areas (Bennet et al 2010)

5.2.3.6. CAP wall chart: *Plan for Implementation (+Community Architecture)*

Individual design responses became the representation of this stage of the CAP (Table 5.6). These were not as well rounded or as deeply considered as the urban design framework. Mostly this discrepancy was seen as a result of time constraints, which indicates that the time required for assimilating the complex information and distillation into an individual architectural response at this level of competency needed to be reconsidered.

The programmes envisaged for the design proposals responded well to the requirements identified in the settlement. It is significant to note here that, although the course at the time was known as Housing and Urban Environments (HUE), both the student group as well as the lecturers agreed that the focus of the design proposals did not have to include housing. The fundamental concept emerging through the process was that people considered the greater issues of amenities, services and livelihood to precede a focus on housing design. For this reason, three of the five proposals focused on public amenities, with one proposal of incremental rental housing and one proposal for modular housing units. One proposal was for a building clinic that could be instrumental in the self-construction of the settlement and a funereal boulevard that would address the importance attached to funerals and the significance of burial sites as manifestation of home.

Reaction to these proposals was very positive within the community, with a special interest expressed in the funereal boulevard. Attentiveness to conditions within the settlement as well as an internalized understanding of cultural context impacted on the student's proposal achieving a high level of appropriateness.

Although none of the individual design proposals were conclusive, the urban and contextual response was hinted at. The proposal for incremental rental housing was situated within the industrial area of Nancefield, where the re-use of warehouse space was considered as a housing opportunity. Here the urban and contextual response was well defined and appropriately responsive, proposing an intervention that would fundamentally challenge the mono-functionality and hence urban quality of the environment.

The funereal boulevard proposal was similarly embedded in a sensitive interpretation of the

emerging urban context, which is fluid in the informal settlement, with few clues that can offer guidelines for interaction. The urban intention outweighed the particular architectural objective, which is an indication of the primary focus of the short module.

In this first engagement with Slovo Park, the individual design proposals were not developed well enough to offer a conclusive spatial interpretation of architectural responses. The scale of the projects was mostly a direct reflection of the existing condition to the point of temerity in terms of considering higher densities or radically different spatial arrangements. None of the individual proposals could be evaluated according to an architectural identity, due to their incompleteness.

Presentation to the community during a mass meeting imbued the students with confidence in terms of the programmatic appropriateness of their proposals. Design considerations, however, were not discussed in detail.

During the final examination of the student work by the internal lecturers, moderated by an external panel of professional architects, the work was credited for the depth of analysis and sensitivity displayed in terms of the urban design framework. More value was ascribed to the success of the process than the finality of individual design proposals. All the students passed the module.

Table 5.6: Application of CAP wall chart Plan for Implementation to RFP 721 (2010)	
Identify tasks	
x	<i>Consider primary tasks</i>
x	<i>Consider constraints</i>
x	<i>Establish responsibilities: Full, shared, support</i>
Synthesize proposal	
x	<i>Prepare co-ordinated plan for action</i>
x	<i>Executive summary of workshop</i>
x	<i>Area profile</i>
x	<i>Overall planning objectives</i>
Project memorandum	
x	<i>Project objectives</i>
x	<i>Project implementation</i>
x	<i>Project budget</i>
x	<i>Plan</i>
Augmentation to Plan for Implementation	
x	<i>Community Architecture</i>

5.2.4. Conclusion

This engagement in Slovo Park served to introduce the Department of Architecture to the community of Slovo Park and to experience not only the challenges faced by the residents, but also the shortcomings and opportunities of our pedagogical approach to architectural engagement in this context.

The exploratory nature of the exercise proved to be valuable as part of this study, as the primary research question could find confirmation in the level of difficulty that was encountered in terms of architectural response. It was evident that the individualized aspect of design could not be navigated, whereas the collective concerns facing the residents could be addressed with a fair amount of success in the urban design framework. It became evident that more direction could be given in terms of a structured brief, specifically by incorporating CAP principles. This would also assist in the assessment of the work, as the professional architects that made up the crit panels were poorly prepared for the nature of the work and the expected outcomes.

Aspects of the CAP platform that were easily assimilated included the transect walks accompanied by casual, unstructured conversations with members of the community as well as the community maps that comprised simple exercises of identifying specific places and marking them with stickers on an aerial photograph of the settlement. Architectural representation methods ranging from hand-drawn sketches to models proved to be good tools of communication, therefore useful for further iterations.

The fact that CAP was not followed rigorously implied that the implied level of exogenous expertise was less evident. This appeared to contribute to the overall level of mutual learning and trust that was apparent during this first engagement in Slovo Park. Despite the fact that this could not be seen as organic participation at the outset, the possibility of shared authorship seemed to be hinted at, thereby opening the possibility of authentic dialogue.

From this six week module, the students and community were inspired to continue their relationship to improve the community hall. This outcome had not been anticipated, but was considered valuable to the development of the course and especially to this thesis. At a personal level, the improvement of the hall was considered to be a potentially valuable physical contribution to the residents of Slovo Park while offering the students a deeply embedded learning process that could not be replicated in studio conditions.

5.3. 2010 Upgrade of community hall in Slovo Park, Johannesburg

5.3.1. Technical iteration studio

5.3.1.1. Components of the student brief

The intention of the technical iteration studio is to refine aspects of the preceding design modules in the academic year in order to achieve a deeper level of resolution and understanding. In 2010, the students who had participated in the module in Slovo Park requested to arrive at their iteration by way of a physical upgrading of the existing community hall. Technical documentation of the proposed intervention and the process of upgrade was required as an outcome of the module (Addendum 5.6).

5.3.1.2. Number of students involved

The same four architecture students who had been involved in the previous module participated in this project, with contributions by a fifth colleague. The Slovo Park Community Development Forum (SPCDF) participated in the entire process, with non-forum members of the community involved regularly on an ad-hoc basis (Figure 5.19). The duration of this engagement extended over an eight week period.

5.3.1.3. Theoretical support

Weekly studio crit sessions ensured rigorous reflection of the process, supported by a continued seminar-style reading of Hamdi's (2010) *Placemaker's Guide to Building Community*. In this way, the physical challenges and impressions gained on site could be discussed and assimilated in the formalized teaching environment of the studio.

5.3.2. Reflection on application of CAP methodology

In this iterative module, the opportunity was presented to investigate CAP from the perspective of a built intervention as a continuance of the preceding research and design phase.

5.3.2.1. CAP wall chart: Introduction

Renewed introductions as proposed in the CAP methodology (Table 5.7) were unnecessary, as a relationship of trust had evolved between the students and the Slovo Park Community Development Forum (SPCDF) leadership structure. The decision to embark on the upgrade of the hall was mutually agreed upon by these parties, thereby presenting a unified intention to the rest of the Slovo Park community (Figure 5.20; 5.21).



Figure 5.19: Some of the SPCDF members who participated in the upgrade of the hall (Bennett et al 2010)



Figure 5.20: The intention to undertake the upgrade of the hall was presented to the community as a whole before embarking on the process (Bennett et al 2010)

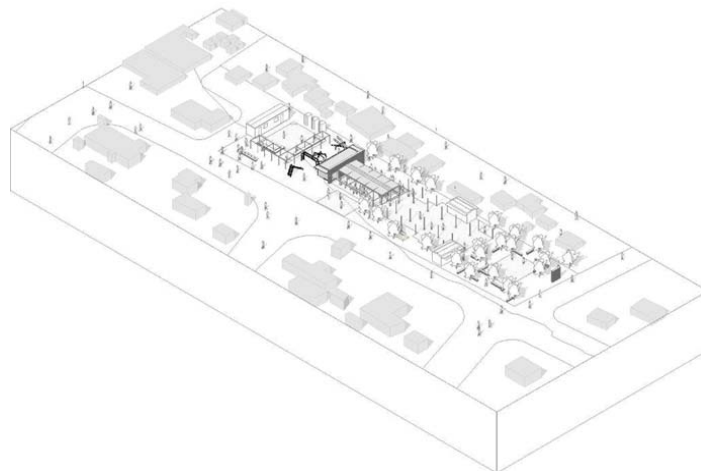


Figure 5.21: Architectural rendition of proposed alterations to hall (Bennett et al 2010)

Table 5.7: Application of CAP methodology: Introduction during 2010 hall upgrade		
CAP methodology applied?		Reasons?
Participants		
√	Community members	SPCDF leadership introduce the proposal to upgrade the hall
x	Gvt representatives	
x	NGO's	
√	Workshop moderator	Introduction moderated by SPCDF and students
Arrangements		
√	Objectives	Objectives illustrated through architectural rendition
√	Commitment	Commitment limited to the duration of the academic module and completion of the upgrade
√	Goals	Goals clearly delineated in terms of construction intention
√	Location	Meeting convened in the existing community hall structure
Materials		
√	Presentation	Visual presentation materials: Plans and models, verbal presentation by SPCDF speakers
x	Tables and chairs	
√	Base plans	Base plans as developed during preceding quarter
x	Folders	
√	Cameras	Visual documentation by students
Event		
x	Refreshments	
x	Reception	
x	Invitations	
x	Certificates	

5.3.2.2. CAP wall chart: *Statement of Problems and Opportunities (+Needs Assessment and Network Analysis)*

The research undertaken in the previous module underpinned the *Statement of Problems and Opportunities* leading to the decision to proceed with the upgrade of the hall (Figure 5.22; Table 5.8). Participation could be argued to have been *induced* by way of the stated goal of completing the hall upgrade. However, the mutual benefit to both groups was clear: The community would acquire an improved facility and the students would obtain academic credits. Sponsorships were similarly motivated depending on marketing advantage or political gain. In this way, a focused satisfaction of certain needs identified in the research could be achieved.

In the course of the planning and construction of the hall, specific hierarchies evident in the Slovo Park community were revealed, as well as their networks attaching them to Nancefield industrial area and Eldorado Park. In this way, the preceding research could be enriched with this increased understanding of the community structures.



Figure 5.22: Concerns regarding the absence of adequate community meeting space were raised during mass meetings between students and community members during the previous quarter's engagement (Bennett et al 2010)

Table 5.8: Application of CAP methodology: Statement of Problems and Opportunities during 2010 hall upgrade		
CAP methodology applied?		Reasons?
Context		
x	Professional speakers	
x	Notes of key issues	
Community issues		
x	Overview by planner	
√	Community representative	Concerns regarding the lack of adequate meeting space and the disrepair of the hall emanated from community presentations
Community observations		
√	Look and listen	Observations by students reinforced through conversation with residents on site
√	Talk and write	
x	Review problems	
Augmentation to Statement of Problems and Opportunities		
x	Testimonio	
x	Image of Home	
x	Human Scale Development Matrix	
√	Network Analysis	Networks of association revealed during the course of construction

5.3.2.3. CAP wall chart: Documentation of Key Information

Key information relating to the community hall and the surrounding area was documented (Table 5.9) in order to place the proposed intervention in its context. Prevailing winds, territorial concerns as well as historical factors such as the prior existence of an adjacent soccer field were documented (Figure 5.23). Visual documentation of the existing site conditions was captured, serving as a platform to inform the design proposal (Figure 5.24).

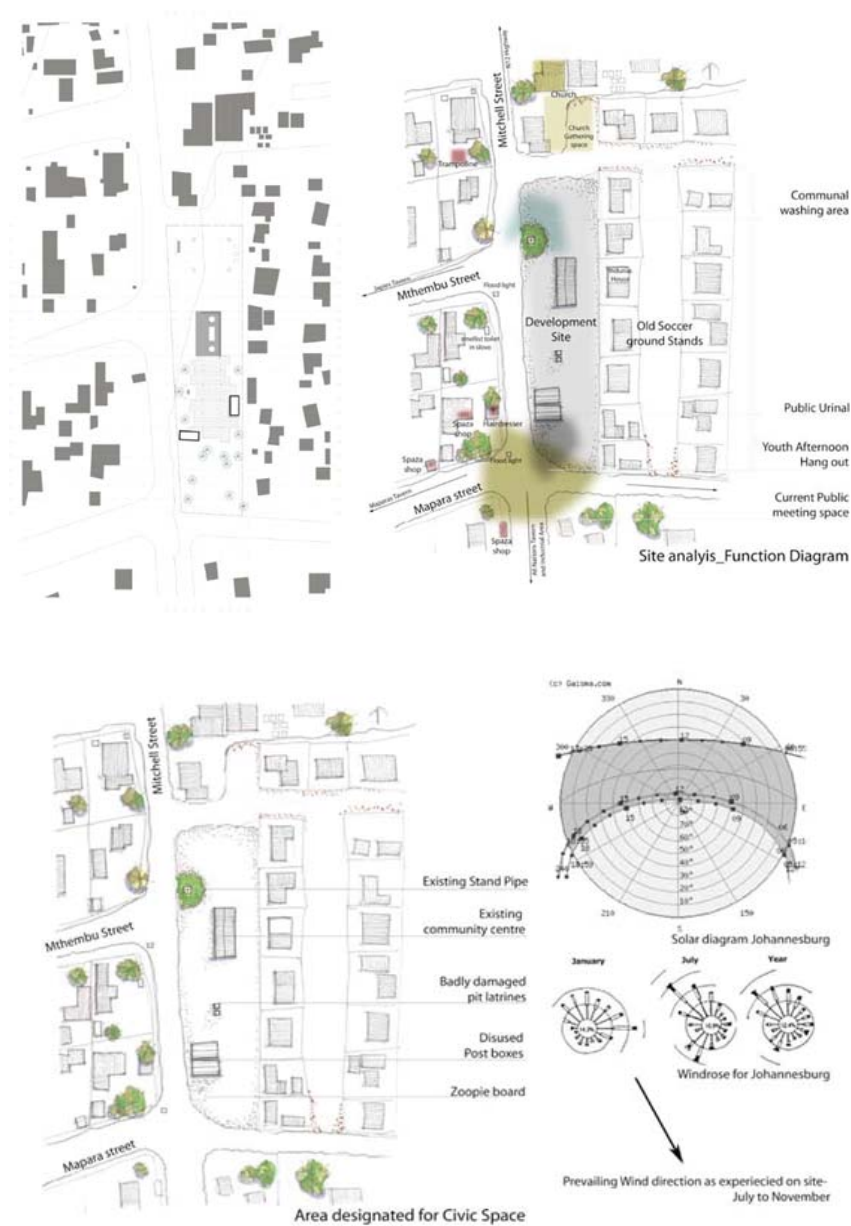


Figure 5.23: Site plan of existing conditions, taking into consideration prevailing winds, gathering spaces and patterns of use (Bennett et al 2010)



Figure 5.24: Photographic documentation of existing conditions (Bennett et al 2010)

Table 5.9: Application of CAP methodology: Documentation of Key Information during 2010 hall upgrade		
CAP methodology applied?	Reasons?	
Base Plan		
√	Site plan	Site plan drawn inclusive of surrounding area
√	Agree on scales of information	Scale of information appropriate to the site-specific upgrade
√	Indicate public uses	Public use patterns indicated
√	Indicate public access	Public access documented
x	Relative land values and potential	
√	Circulation, access routes, site boundaries	Access and site boundaries indicated
Spatial Physical Elements		
√	Document existing conditions	Existing conditions documented on plan and in photographs
x	Document proposals from existing Masterplans	
x	Document infrastructure services	
Non-physical elements		
√	Document existing conditions	Existing conditions captured through documentation of activities in the area
x	Document proposals from existing Masterplans	
√	Indicate political boundaries, community territories	Community territories observed and confirmed through presentations and interaction on site

5.3.2.4. CAP wall chart: Making Community Map (+PGIS)

The base plan of the community hall upgrade was brought to the community of Slovo Park by way of drawings and base models that served to confirm the use patterns, concerns and opportunities specific to the proposed upgrade (Figure 5.25; Table 5.10). During this presentation, students and SPCDF leadership were able to engage in a process of critical reflection on the issues of greatest concern before embarking on the upgrading task as such.



Figure 5.25: Confirmation of community concerns and patterns of use specific to the proposed upgrade of the hall (Bennett 2010)

Table 5.10: Application of CAP methodology: Making Community Map during 2010 hall upgrade		
CAP methodology applied?	Reasons?	
Complete Base Plan		
√	Meet with community on location	Meeting with community in existing community hall
√	Map community concerns and opportunities	Concerns and opportunities related to the upgrade of the hall considered
√	Patterns of use	Use patterns confirmed
Dwelling Typologies		
x	Document use: plot sizes: tenure: building types	
x	Document family story, past and future expectations	
x	Describe physical characteristics	
x	Plot plan: dwelling, uses, dimensions	
x	Photograph or sketch of dwelling	
x	Table of basic data	
Augmentation to Making Community Map		
x	PGIS	

5.3.2.5. CAP wall chart: *Set of Actions and Related Tasks (+Collaborative planning)*

Shortcomings in design development and consideration of details proved to be unsettling for the architecture students, frustrating the building process, while at the same time conferring greater authority to the skilled tradesmen who were part of the community's building team. The evident lack of experience on the side of the students alerted them to a desire for greater technical development in future, but simultaneously allowed them to be open to the learning experience on site. This space of insecurity contributed to the overall ability to learn by doing, which could not be substituted by means of a simulated interaction.

Through this inversion of the architect-as -expert and client-as-passive-receiver condition, the process entered into the sphere of collaboration. Due to the interactions within the student group on the one hand, the community dynamics on the other and eventually the common ground established in the construction process, collaboration took place on multiple planes towards the establishment of a plan of action (Table 5.11). Such multi-dimensional collaborative practices were seen as an important facet of the engagement in the informal settlement context, where the intersection of collective and individual is defined in this space of collaboration. The condition of informality infers an ability of a group to collectively survive in the face of much adversity, thereby developing a heightened capacity for collaboration. Developing an understanding of this requirement for meaningful engagement proved to be a valuable contribution towards the evolution of a method of engagement (Figure 5.26). Architectural renditions of the proposed interventions to the hall assisted in consolidating the shared intentions (Figure 5.27.1; 5.27.2; 5.27.3).



Figure 5.26: Planning meeting in Slovo Park with students and SPCDF leadership (Bennett 2010)



Figure 5.27.1: Architectural renditions of proposed upgrade of community hall –site plan (Bennett 2010)

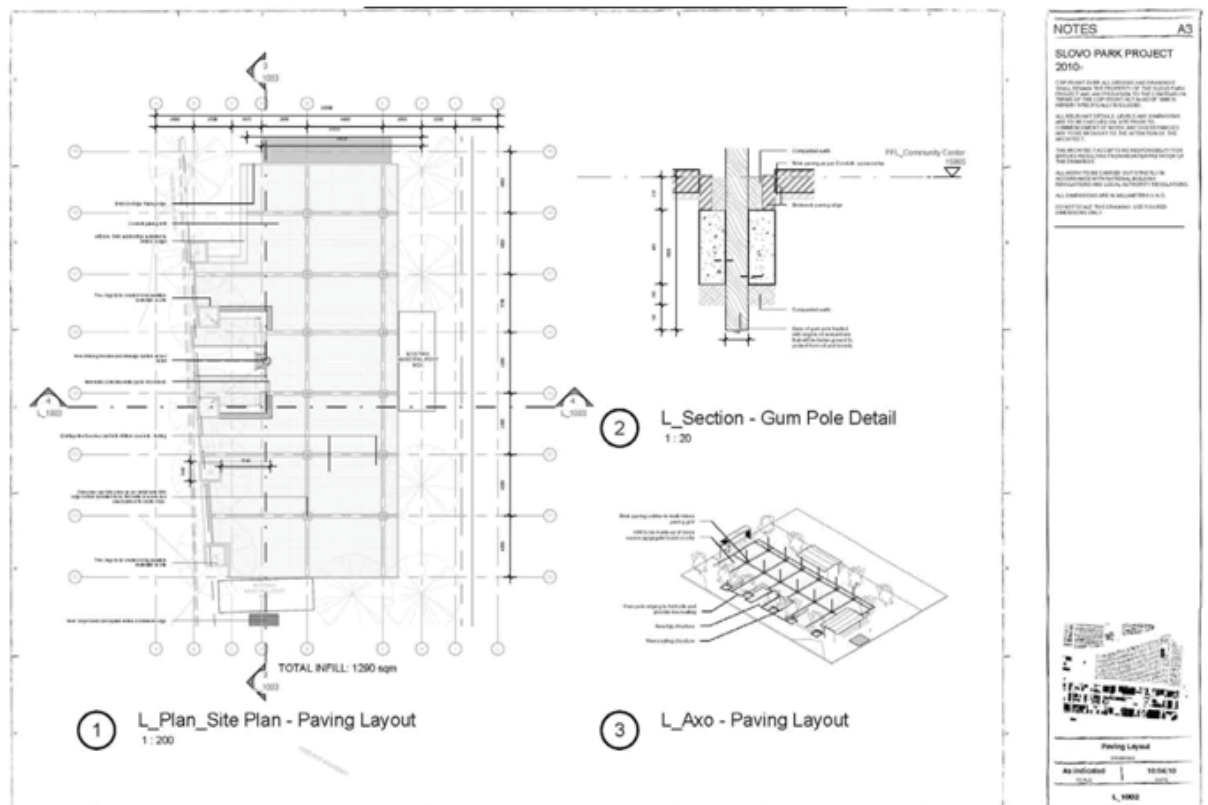
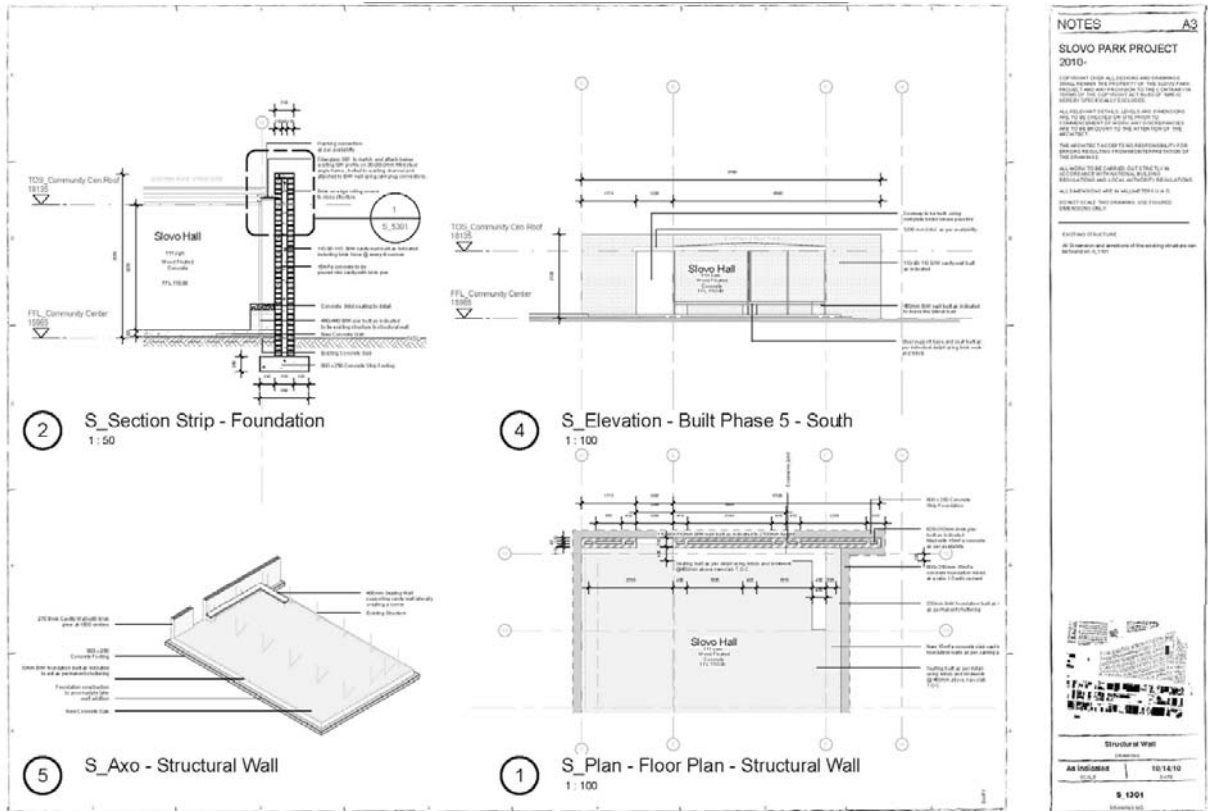


Figure 5.27.2: Architectural renditions of proposed upgrade of community hall –structural wall, paving and gum pole detail (Bennett 2010)

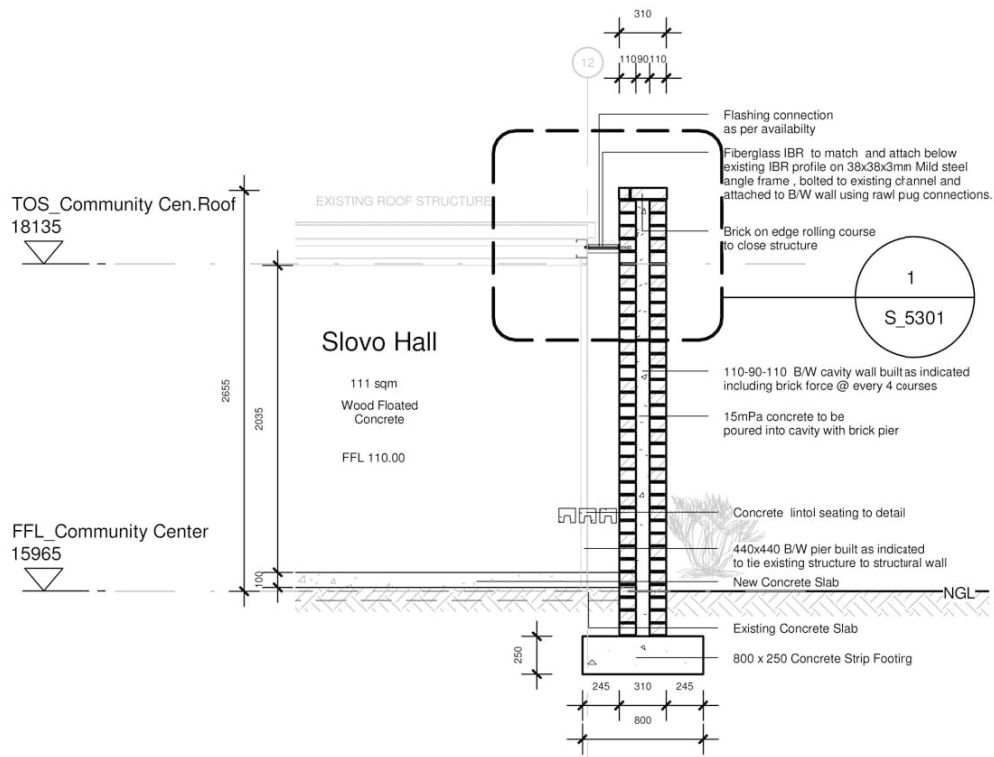


Figure 5.27.3: Architectural renditions of proposed upgrade of community hall -detailed section (Bennett 2010)

Table 5.11: Application of CAP methodology: Set of Actions and Related Tasks during 2010 hall upgrade		
CAP methodology applied?		Reasons?
Identify and prioritize actions		
✓	Decide actions & related spatial & non-spatial interventions	Actions undertaken by building team inclusive of non-spatial tasks such as fund-raising, catering, mobilizing of community members
✓	Prioritize interventions: need, feasibility and political viability	Needs and feasibility reliant on information gathered during the previous quarter, political considerations interwoven with community activity
✓	Consider consequence & grouping in terms of input and goods	Input by all stakeholders according to existing skills and capacity, shared responsibility for fund raising and donorships
Augmentation to Set of Actions and Related Tasks		
✓	Collaborative Design	Reciprocity established between students and participating community members in terms of shared decision-making

5.3.2.6. CAP wall chart: Plan for Implementation (+ Community Architecture)

The construction of the upgrade became the vehicle for the implementation plan (Table 5.12). Continued input from students and community members was documented and presented in printed and electronic format as an additional output of the module.

Responsibility for the construction process was shared between all the participants, with schedules, outputs and budgets developed collaboratively (Figure 5.28). This collaborative process represents the theoretical underpinning of *community architecture* movements in the United Kingdom (Jenkins & Forsyth 2010) and the Asian Coalition for Housing Rights (Archer 2012). Much to the delight of the 2010 UP Honours students, credit for the initiative and successful completion of the hall upgrade was claimed by the residents of Slovo Park through their affiliates in the Informal Settlement Network (ISN) and the Community Resource Centre (CORC). In a newsletter (SASDI 2011) the ISN commends the students for supporting the project with their technical expertise, thereby conferring ownership of the process on the community of Slovo Park. This facet of the intervention had been hoped for but not anticipated and managed to confirm much of the theoretical intentions of participation and collaboration. The fundamental desire to empower the community through architectural intervention had occurred as the most conclusive indication of the value of engagement in the context (Figure 5.29).



Figure 5.28: Gantt chart documenting the proposed construction process with contribution by the various stakeholders (Bennett et al 2010)



Figure 5.29 (Part 1)



Figure 5.29 (Part 2)



Figure 5.29: Photographic documentation of the Slovo Park community hall upgrade process (Bennett et al 2010)

Student impressions

Student 1

The merit of working hand in hand with those community members who are the game changers in the community has been the single most valuable lesson in my architectural career. Most of the decisions made during the design process were based on very thin ideas of what's really going on.

Student 2

The interaction with the community of Slovo Park, the majority skilled tradesmen in the built environment, allowed me to understand who are the receivers, and implementing agents of our ideas. What we appreciated most is the patience in which Slovo Park has allowed us to learn.

Student 3

The last twelve weeks in Slovo Park have been a very valuable experience in building practice, design through process and restriction of material as well as group dynamics within our group of students and within the greater Slovo Park construction team.

Community impressions

Mohau Melani (SPCDF Chairman)

For me being able to design a working program and keeping to the timeframes was the most valuable lesson learnt from the project. Being able to identify the resources within the community and outside of the community and tapping into them was also something for one to write home about. A memorable day was the day which the paving was supposed to arrive at our site at 08:00am, but it arrived late as there was a delay with the transport, when it finally arrived at about 22:00pm there was no-one on the site to help offload. We had forgotten about the community because of the pressure faced. We started phoning around the shops and in no time the site was full with people. It took about 20-30 people 3 hours to offload, with many bricks being damaged and Mlilo (Jhono) had to sleep in the informal settlement. That was one of the key days which indicated the beauty of community participation.

One other thing which we have managed to achieve after our skills audit was to building a team for those not working, which at time when the times were trying they managed to come to work and work without complaining or if there were complaints to put them outside of the scope of what must be done. To encourage and sharpen the hunger to want to do more alive from the working team. To level the standard, we all ate the same food, the same plates and at the same time regardless where we came from.

The major achievement was that of meeting our timeframe and deadlines (Figure 5.30). The efforts put in the project is overwhelming. Our ability to fix each others mistakes and respond to challenges as when they arise. The fact that we were mostly young and willing to learn from each other, from the mistakes we have made and from the elders who were part of the project (Bennett et al 2010).



Figure 5.30: Final day of construction (Bennett et al 2010)

Table 5.12: Application of CAP methodology: Plan for Implementation during 2010 hall upgrade		
CAP methodology applied?		Reasons?
Identify tasks		
√	Consider primary tasks	Sequence of works determined collaboratively
√	Consider constraints	Constraints included time, budget, materials and skills
√	Establish responsibilities: Full, shared, support	Shared responsibility between all participating students and community members
Synthesize proposal		
√	Prepare co-ordinated plan for action	Plan for action based on architectural plans, Gantt charts
x	Executive summary of workshop	
x	Area profile	
√	Overall planning objectives	Planning objectives pertaining to the completion of construction
Project memorandum		
√	Project objectives	Project objectives clearly established and described in architectural documentation
√	Project implementation	Implementation undertaken through collaboration between students and community members
√	Project budget	No budget allocated to the project: All funds raised collaboratively
√	Plan	Plan established collaboratively, amended on site on an ad-hoc basis according to opportunities encountered
Augmentation to Plan for Implementation		
√	Community Architecture	Full community and student participation from inception to completion

5.3.3. Conclusion

The continuity that came from having the same students undertake this project after having done the research and design required of the preceding module enhanced the relationship of trust between the residents of Slovo Park and the students. The same continuity also served to illustrate the value of applying CAP principles when taken through to a positivist intervention, as a culmination of the action plan.

The collaborative process proved to be very rich, although it was focused on the implementation rather than on the design. It could be stated that the space of authentic dialogue was created in the process of problem-solving on site. Traditional architectural representation techniques such as plans, sections, details and models became useful as tools of communication both during and after the fact, although few drawings were done before commencing with the construction. This in itself became problematic in terms of assessing the work from an academic perspective and in terms of aligning the expected outcomes of the curriculum with those of professional bodies. These concerns illustrated the need to establish the CAP platform as a recognized component of the pedagogical imperative in South African schools of architecture, where the lack of such a methodology necessarily contributes to the continued marginality of the profession to this discourse.

Learning from these two opportunities to engage in Slovo Park, the student brief for the following year was intended to align the existing curricular expectations more closely to the CAP platform, in the hope of mitigating some of the problems experienced during 2010 without losing the richness that had been achieved in these first engagements.

5.4. 2011 RFP 721 (Alaska, Mamelodi: Pretoria)

5.4.1. Research and design studio

5.4.1.1. Number of students enrolled

For the 2011 module, a group of fifteen students participated in the RFP 721 module in Alaska, Pretoria. The fact that this student group did not consist of volunteers casts a different light on the replication of methods employed as the sample group is more diverse in terms of their personal convictions.

5.4.1.2. Site of engagement, history of relationship with community

In response to the 1997 White Paper on Education (SA 1997), the University of Pretoria (UP) established a Community Engagement Department in 2008 (UP 2008). The activities of this department includes the development of partnerships with various disadvantaged communities as well as NGO's and faith-based organisations working within these sectors of society. One such organisation is the *Viva Foundation*, who has established *Viva Village* within the informal settlement of Alaska to the eastern boundaries of Mamelodi, Pretoria (Viva Foundation 2014).

The relationship between UP and *Viva Village* has resulted in partnership projects with various departments within the university. The students enrolled for the Honours RFP 721 module in 2011 (3rd quarter) were introduced to the directors of *Viva Village*, who then familiarised them with the members of the community that were regular visitors to *Viva Village*. From these initial encounters, the students were then encouraged to discover their own perspective on conditions impacting on the residents of the surrounding informal settlement of Alaska.

5.4.1.3. Student brief and assignments

The student brief for RFP 721 (Addendum 5.7) was more directed than the first, describing the considerations relevant to the urban analysis and participation requirements. At the urban level, the value of the participatory mapping exercises undertaken in 2010 were considered important to include into the second iteration, as a continuation of Community Action Planning (CAP) principles described by Hamdi (2010).

Specific attention was paid to the mapping of transport routes, housing conditions and

accessibility to livelihood. Community participation was encouraged in terms of confirming the observations made during transect walks.

5.4.1.4. Schedules: Studio, assessment and community interaction

The schedule presented to the students included designated opportunities to meet with the community on site (including bus transport from the campus), three formal crit evaluations in studio as well as a final presentation to the community, which eventually manifested as a presentation to the director of the *Viva Foundation* on the premises of the University (Addendum 5.8; 5.9). The module spanned a period of six weeks, as in 2010, but the actual time spent on site was considerably less, amounting to no more than five full days.

Assessments and crit reports

- Marks awarded for Urban Design Frameworks
 - Group 1: 60%
 - Concern was expressed that projects were not derived from the analysis.
- Group 2: 65% (Most responsive to conditions on site)
 - There was acknowledgement for the community engagement process and engagement with existing urban fabric.
- Group 3: 75%
 - A clear understanding and analysis of the site through observation was conveyed
- Group 4: 80% (Despite being the least responsive to existing conditions on site)
 - Reliance on graphic analysis with questions raised regarding location, densification and conclusions (Addendum 5.10).

The prize for the Research Field of Human Settlements and Urbanism for the year was awarded to a project proposed between Alaska and the Pretoria CBD, based on the sophistication of a well-resolved architectural product. However, there had been no consideration offered for the participation process or the application of any CAP methodology. The basis of assessment for this module was therefore taken under consideration for the subsequent iterations of the module.

5.4.2. Theoretical support

5.4.2.1. Student brief and assignment

The concurrent RFS 720 theory course became more closely aligned to the methods employed in the design studio (Addendum 5.11).

5.4.2.2. Lecture themes

Syllabus themes were developed, aimed at addressing the following conditions that students would investigate (Addendum 5.12):

- Reading/ mapping of the African city
- Engaging with the city
- Public participation
- Formalizing informality
- Authorship and control in design
- The power of vision (Appendix 5.10)

5.4.2.3. Reading list

An extensive reading list was compiled in support of the seminar themes of the course. Specific reference was made to sections of Hamdi's *Placemaker's Guide to Building Community* (2010) for the purposes of preparing the students for participation in the field. This was scheduled for the third week of the module (Addendum 5.13).

5.4.3. Reflection on application of CAP methodology

5.4.3.1. CAP wall chart: Introduction

The *Viva Foundation* operates within Alaska, but is territorially differentiated within the settlement as an external party. The Viva Village is physically barricaded off by way of a razor wire fence. The introduction to the settlement of Alaska was therefore not by way of the representative community structures; rather, it was by way of an exogenous development partner (Table 5.13).

Table 5.13: Application of CAP methodology: Introduction to RFP 721 (2011)	
CAP methodology applied?	Reasons?
Participants	
x	Community members
x	Gvt representatives

√	NGO's	Introduction to Viva Foundation through UP Community Engagement Department
√	Workshop moderator	Role assumed by Honours students engaging with residents of Alaska
Arrangements		
x	Objectives	
x	Commitment	
x	Goals	
√	Location	Engagement located in Alaska informal settlement
Materials		
x	Presentation	
x	Tables and chairs	
x	Base plans	
x	Folders	
√	Cameras	Students made use of cameras and sketchbooks for visual documentation
Event		
x	Refreshments	
x	Reception	
x	Invitations	
x	Certificates	

5.4.3.2. CAP wall chart: Statement of Problems and Opportunities (+Needs Assessment & Network Analysis)

Community perspectives were mostly reliant on casual visitors to Viva Village and individual volunteer guides accompanying the students on transect walks through the settlement and along commuter routes. Observations were documented photographically and in drawings, thereby informing the statement of problems and opportunities (Figure 5.31; 5.32; Table 5.14).



Figure 5.31 Community observations through photographic documentation (Maritz 2011)



Figure 5.32: Hand-drawn sketches of observations during transect walks (August 2011)

Table 5.14: Application of CAP methodology: Statement of Problems and Opportunities to RFP 721 (2011)		
CAP methodology applied?		Reasons?
Context		
x	Professional speakers	
x	Notes of key issues	
Community issues		
x	Overview by planner	
x	Community representative	
Community observations		
√	Look and listen	Students based observations on visual documentation during transect walks accompanied by volunteer residents
x	Talk and write	
x	Review problems	
Augmentation to Statement of Problems and Opportunities		
x	Testimonio	
x	Image of Home	
x	Human Scale Development Matrix	
x	Network Analysis	

5.4.3.3. CAP wall chart: Documentation of Key Information

Contextual information was collated by making use of documentation available from the City of Tshwane, the Geography Department at UP as well as publically available software such as Google Earth (Figure 5.33). This stage of the work was not done in the participatory manner as expected. Students relied mostly on objective mapping techniques using the software, with no contributions from the community (Figure 5.34):

- City of Tshwane spatial development frameworks (CoT 2012)
- Metroplan urban design frameworks (Metroplan 2014)
- Google Earth historical view
- Department of Geography aerial photographs

Problems identified within the settlement of Alaska were derived from the observations during transect walks through the settlement: excessive pollution, lack of emergency service access,

lack of services, especially drinking water, as well as food insecurity. The difficulty of public access and lack of public amenities not only in Alaska, but also in the greater Mamelodi area were similarly identified (Figure 5.35; 5.36; 5.37; 5.38; 5.39; 5.40; 5.41; 5.42; 5.43; Table 5.15).

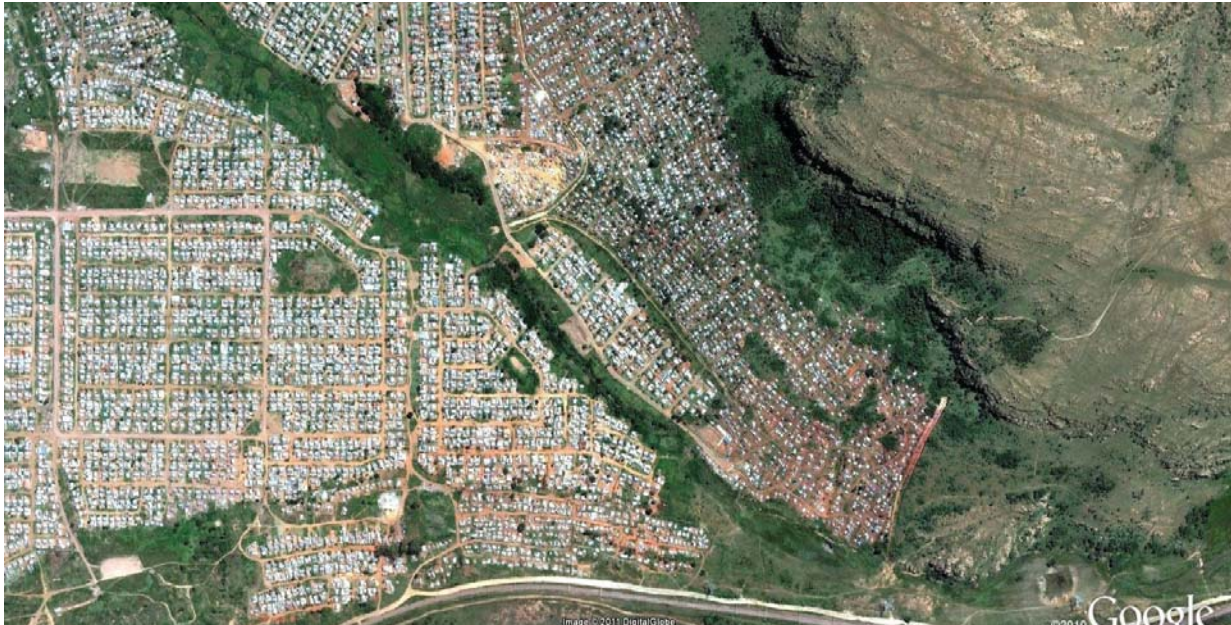


Figure 5.33: Image of Alaska informal settlement as available on Google Earth

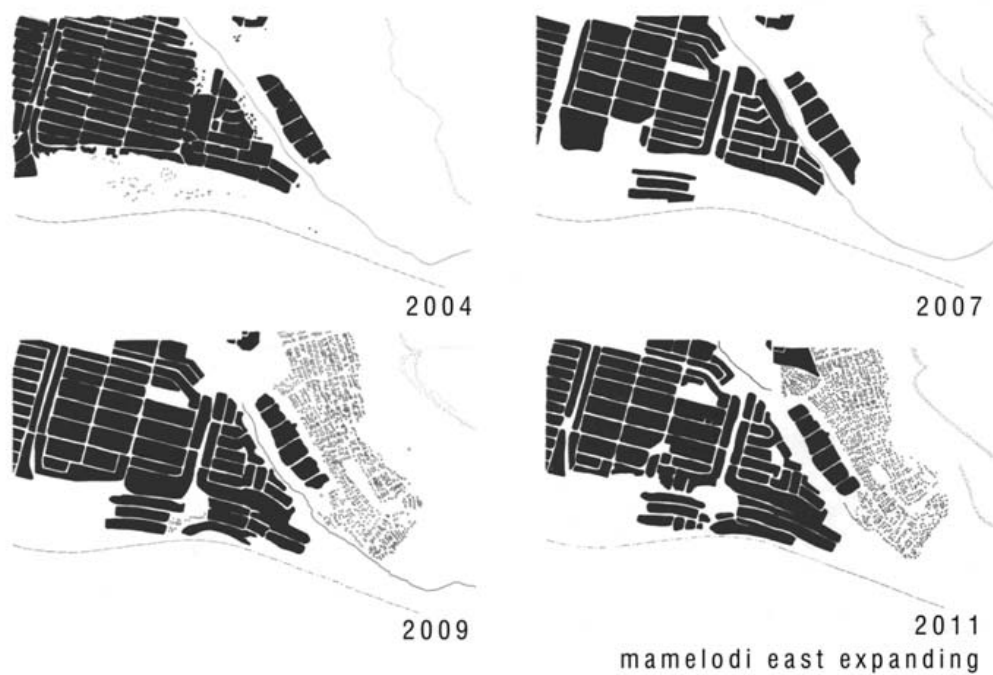


Figure 5.34: Site plan of Alaska in the context of Mamelodi East, Pretoria (Botha 2011)

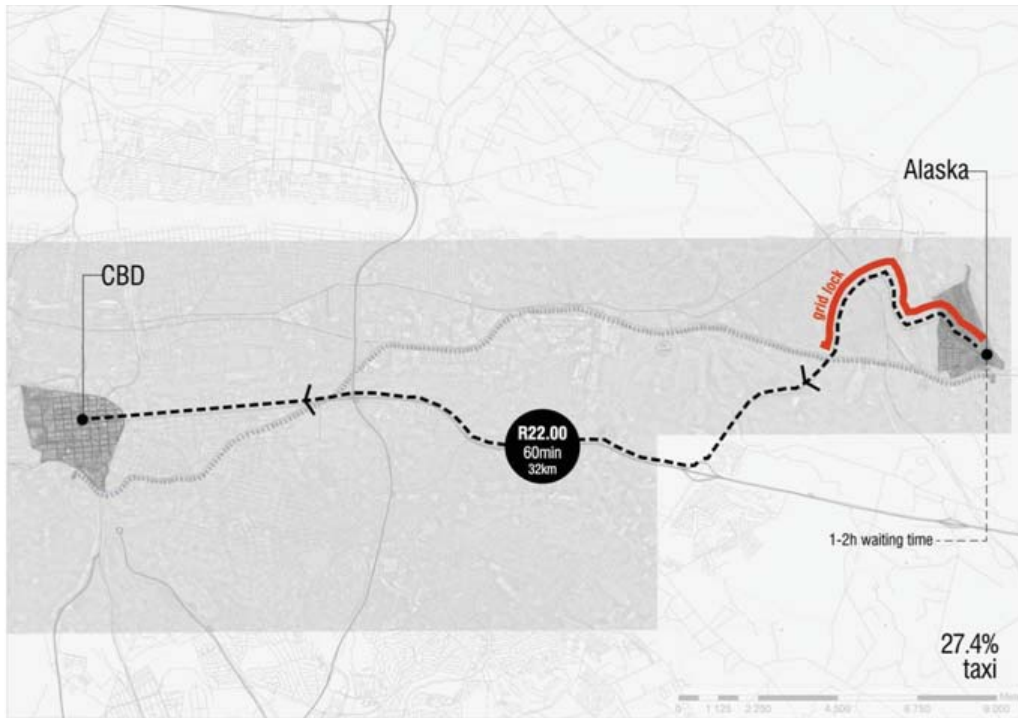


Figure 5.35: Relationship of Pretoria CBD to Mamelodi East illustrated, indicating difficulty of public access. Traffic congestion contributes to a commuting time up to four hours between the furthest reaches of Alaska and the Pretoria CBD (Botha 2011)

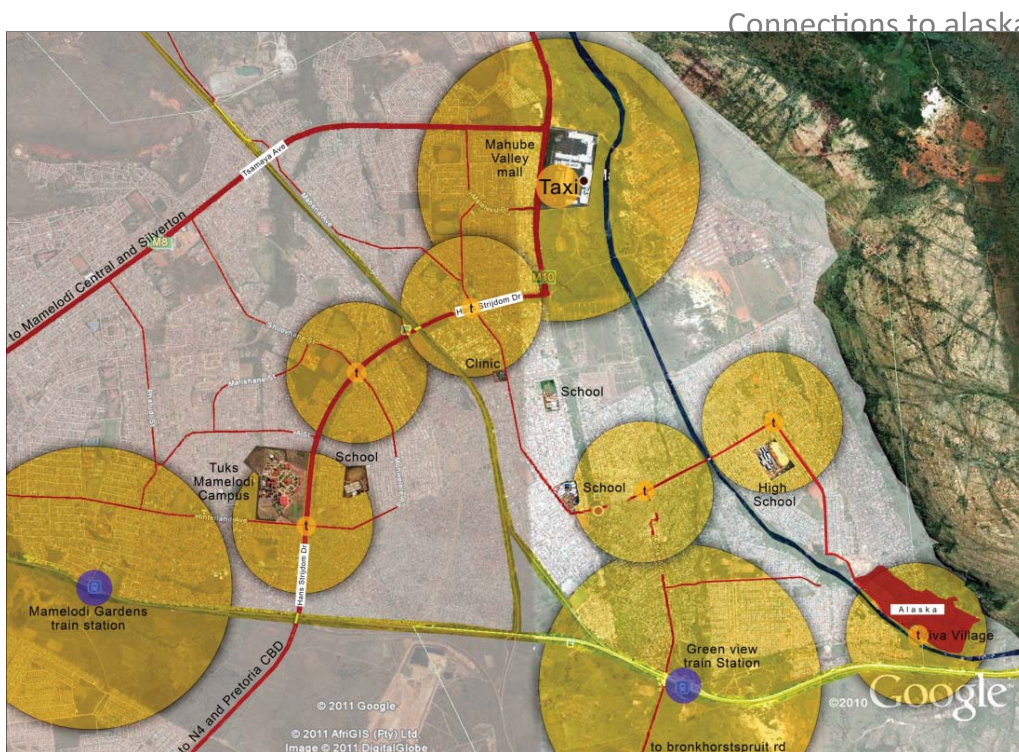


Figure 5.36: Public amenities and accessibility between Mamelodi and Alaska (Botha 2011)



Figure 5.37: Documentation of physical access routes within Alaska (Botha 2011)

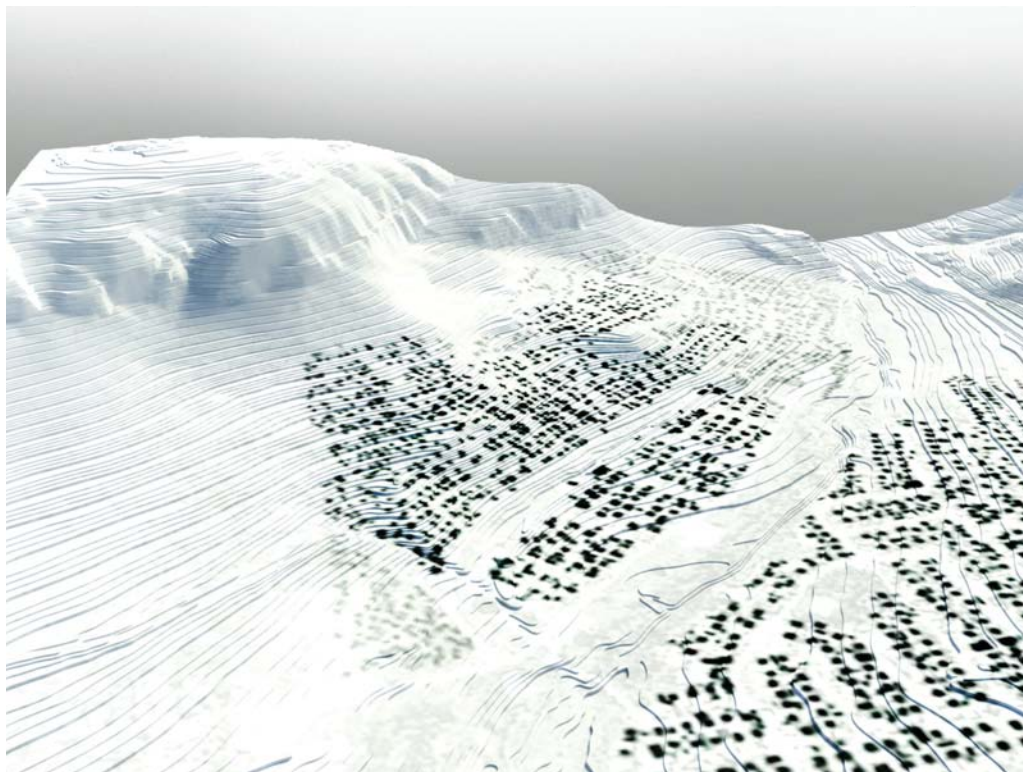


Figure 5.38: Topographic illustration of existing physical conditions (Tenea 2011)



Figure 5.39: Visual documentation of illegal water and electrical connections (Maritz 2011)



Figure 5.40: Visual documentation of stormwater management done by informal settlement residents in Alaska (Maritz 2011)



Figure 5.41 : Documentation of existing illegal water connections in the Alaska informal settlement (Rossi 2011)

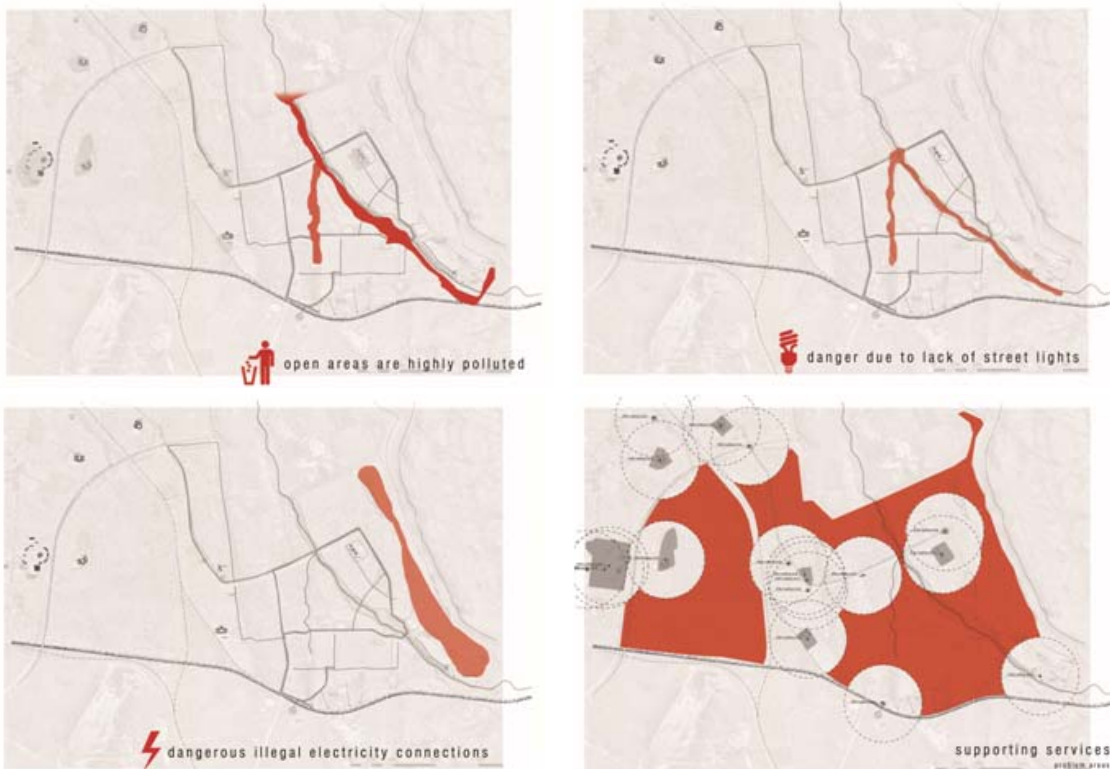


Figure 5.42: Documentation of non-physical conditions: Pollution, Lack of security, Danger of illegal electrical connections and lack of supporting services (Botha 2011)



Figure 5.43: Visual documentation of informal trade and living conditions in Alaka, Pretoria (Maritz 2011)

Sample exercises were undertaken by some students to document the non-physical elements. These exercises included making use of disposable cameras handed out to a random selection of community members and the use of flash cards to discern hierarchies of importance (Figure 5.44).

These exercises assisted the process of discerning the problems and opportunities, but were limited in their critical analysis or rigorous application. The desire to engage in a structured way, however, was noted in terms of further iteration.

Table 5.15: Application of CAP methodology: Documentation of key Information to RFP 721 (2011)		
CAP methodology applied?		Reasons?
Base Plan		
√	Site plan	Site plan available through institutional bodies: City of Tshwane, University of Pretoria and Google Earth
√	Agree on scales of information	Scales of information applied according to legibility requirement in mapping process
x	Indicate public uses	
√	Indicate public access	Public access routes documented at metropolitan scale as well as settlement scale
x	Relative land values and potential	
√	Circulation, access routes, site boundaries	Circulation and access routes indicated as part of mapping process
Spatial Physical Elements		
√	Document existing conditions	Existing physical conditions indicated through mapping and photographic documentation
x	Document proposals from existing Masterplans	
√	Document infrastructure services	Visual documentation of illegal water and electricity connections, as well as self-made stormwater management solutions
Non-physical elements		
√	Document existing conditions	Disposable cameras handed to residents to document non-physical conditions and concerns
x	Document proposals from existing Masterplans	
x	Indicate political boundaries, community territories	



Figure 5.44: Existing non-physical conditions captured by means of disposable cameras (Rossi 2011)

5.4.3.4. CAP wall chart: Making Community Map (+PGIS)

The inability to relate to a specific group within the community structure contributed to a lack of interest and response between students and community members. Despite making allowance for time within the schedule and securing funding for transport to the site, the engagements remained distanced and inconsequential in terms of feedback loops and opportunity for critical reflection within the process.

Site visits were limited, with few consistent engagement opportunities with any particular sections of the resident community. Consequently, methods of engagement reverted to graphic desk-top investigations (Table 5.16). A wide range of literature and mapping techniques was introduced to the student group, who generally favored conditions where they were able to control the outcomes more easily (Figure 5.45; 5.46; 5.47).

From the delimitations in the brief, students became concerned with achieving the specified goals rather than gaining a deep understanding of the settlement by way of interactive and random investigations.

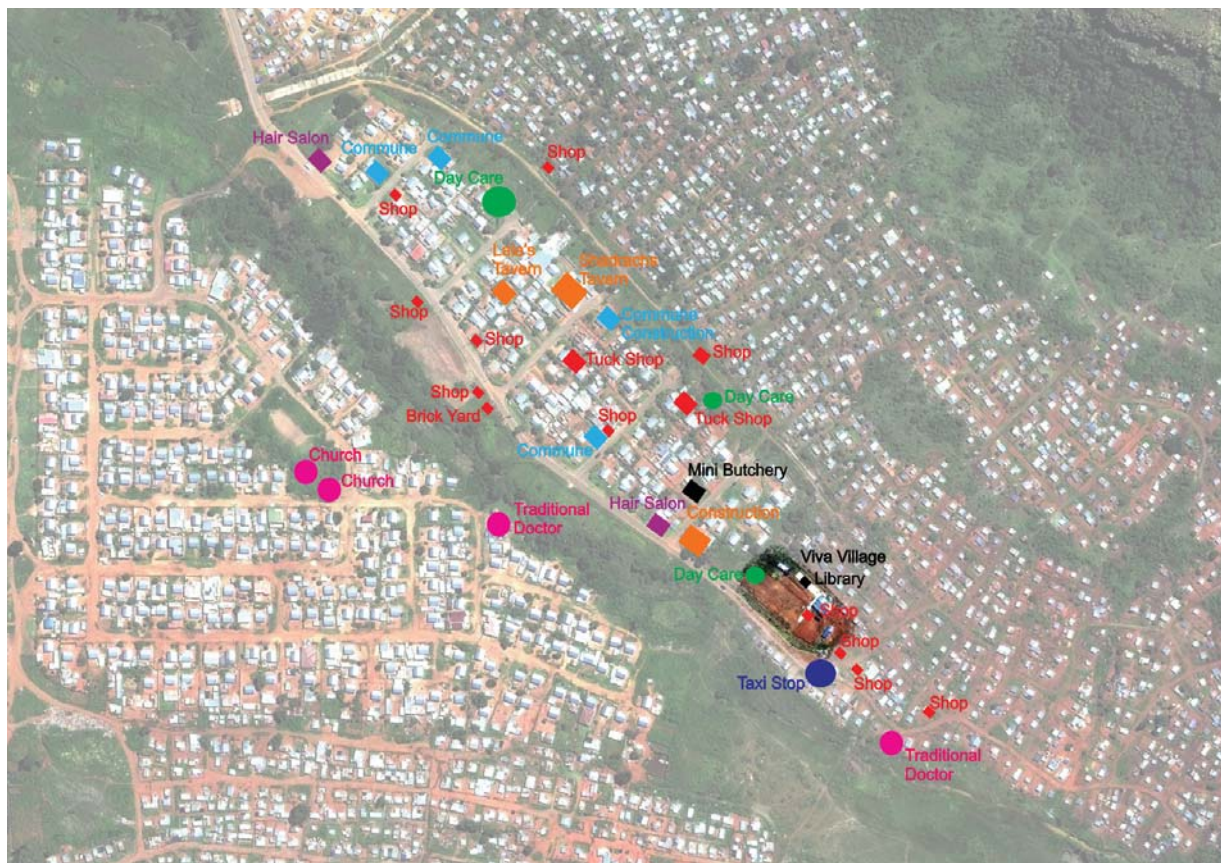


Figure 5.45: Use patterns were mapped based on visual observations during transect walks (Maritz 2011)



Figure 5.46: Patterns of use were documented through visual observation (Maritz 2011)

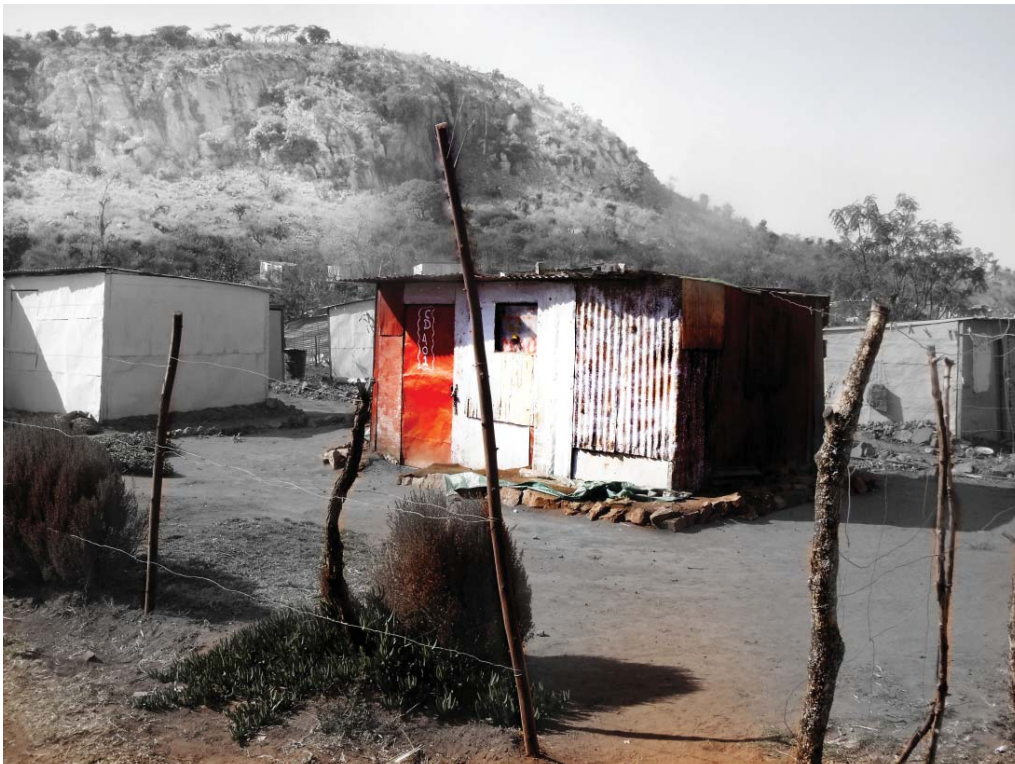


Figure 5.47: Photographs of existing dwellings (Maritz 2011)

Table 5.16: Application of CAP methodology: Making Community Map to RFP 721 (2011)	
CAP methodology applied?	Reasons?
Complete Base Plan	
x	<i>Meet with community on location</i>
x	<i>Map community concerns and opportunities</i>
√	<i>Patterns of use</i> Use patterns were mapped and documented based on visual observation
Dwelling Typologies	
x	<i>Document use: plot sizes; tenure; building types</i>
x	<i>Document family story, past and future expectations</i>
x	<i>Describe physical characteristics</i>
x	<i>Plot plan: dwelling, uses, dimensions</i>
√	<i>Photograph or sketch of dwelling</i> Dwelling typologies were recorded photographically
x	<i>Table of basic data</i>
Augmentation to Making Community Map	
x	<i>PGIS</i>

5.4.3.5. CAP wall chart: Set of Actions and Related Tasks (+Collaborative planning)

Lack of rigorous analysis of the spatial conditions, scale and existing urban fabric was prevalent throughout. Hand sketches of the textures and visual impressions were documented without rigorous application to design proposals. Superficial understanding of the settlement led to predictive and top down approaches to the urban design frameworks as well as the individual proposals (Table 5.17). The focus was on discovering the major spatial problems, especially as it relates to the deficits in the urban opportunities in relationship to the greater metropolitan area.

Despite the programmatic response to urban conditions, students mostly reverted back to a product-driven approach, with examples of urban descriptions of public edge conditions proving to be the exception rather than the rule. The informal condition of the settlement posed a significant challenge in terms of its unfamiliarity and lack of resonance to theoretical exposure.

No attempts of collaboration with community members in this stage were noted.

The problems of pendulum migration and the urban penalty of commuting were identified as contributing factors to the poverty experienced in the peripheral settlement of Alaska and the surrounding sections of Mamelodi East (Figure 5.48). Poor infrastructure and a lack of amenities were seen as issues that needed to be addressed to improve the urban quality of the area (Figure 5.49). By proposing public interventions such a clinic, recycling centre, market and baptistry, the complexity of urban choice was considered to be of importance in terms of enriching the existing settlement.



Figure 5.48: Proposed intervention addressing the pendulum migration between Alaska and Pretoria CBD (Botha 2011)

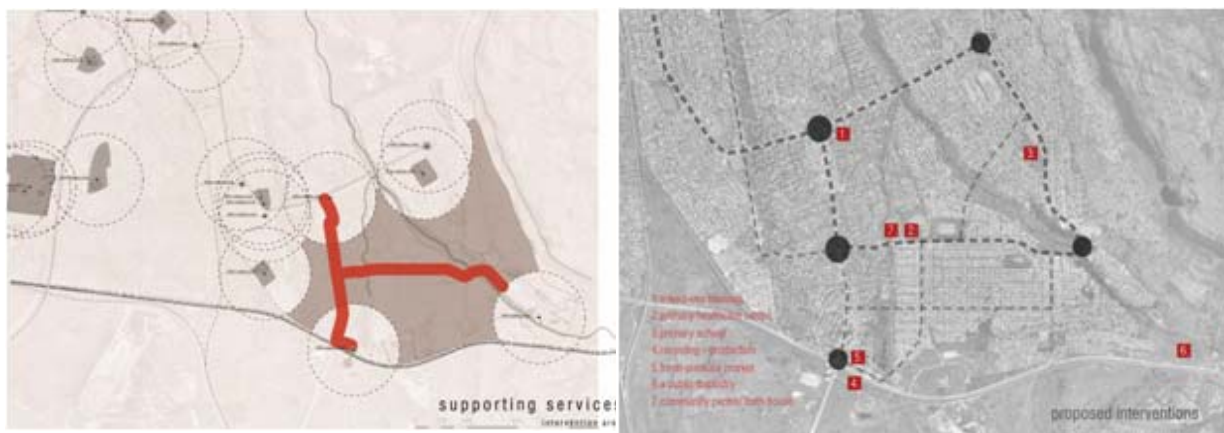


Figure 5.49: Interventions proposed to address lack of public amenities in the area, thereby mitigating the pendulum migration (Botha 2011)

Interventions were proposed in which some of the physical problems observed in the settlement, such as excessive pollution, lack of emergency service access and lack of services could be systemically addressed. The proposed urban design framework considered these issues by way of an interdependent sequence of nodal and satellite interventions that could reinforce existing opportunities and create a systemically related platform for the socio-economic stabilization of the settlement (Figure 5.50).



T

Figure 5.50: Overall intervention strategy that supports existing nodes of activity and introduces mitigating measures addressing lack of emergency services, recycling initiatives, water points and green initiatives (Rossi 2011)

Some of the urban analysis remained rudimentary and object-based, relying mostly on desk top studies and photographic documentation of limited observations. Proposals were limited to the insertion of amenities and an acknowledgement of the topographical opportunity for terraced housing (Figure 5.51; 5.52). Conceptual urban strategies based on New Urbanism theories underpinned much of the response, rather than a sensitive consideration of the challenges specific to the settlement.

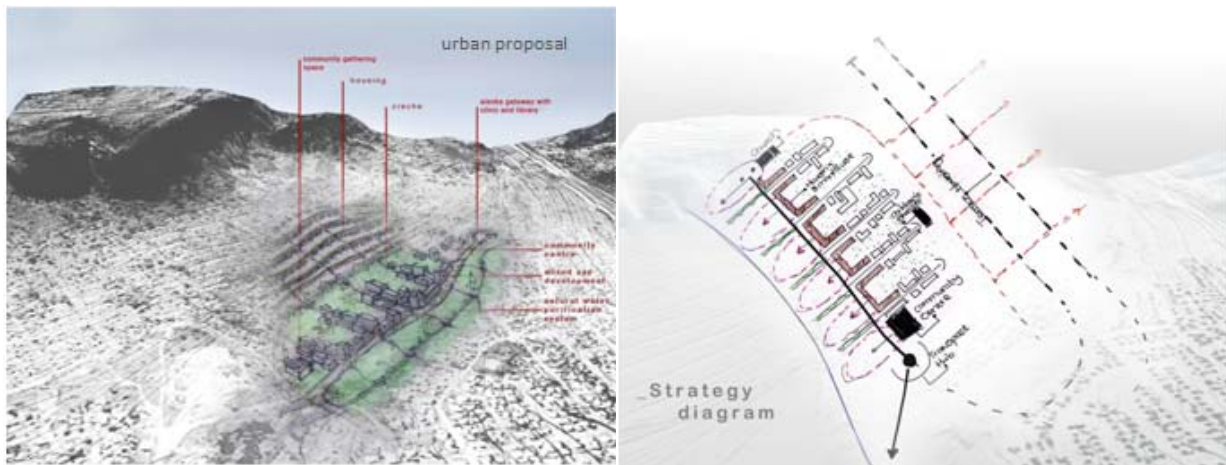


Figure 5.51: Intervention proposed in which housing densities are increased in response to the terraced topography of the site (Maritz 2011)

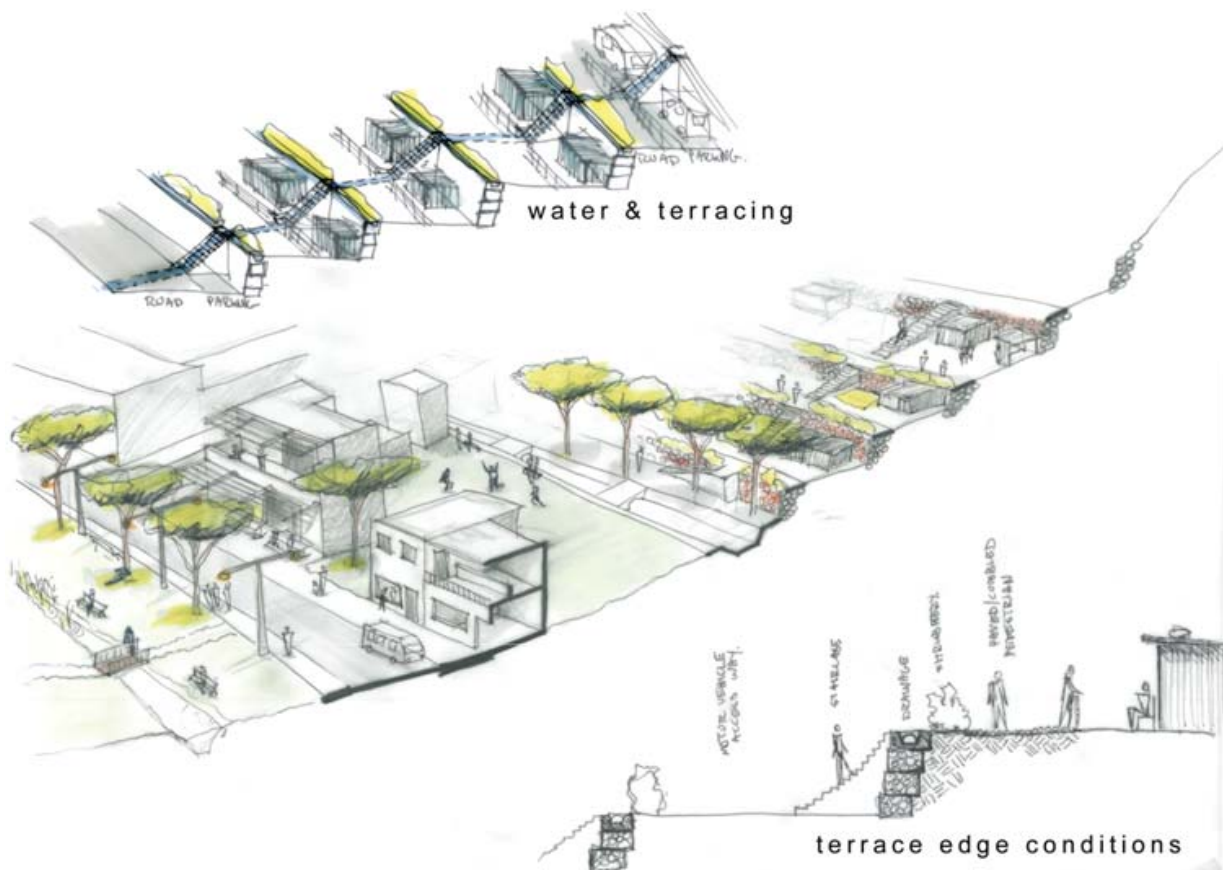


Figure 5.52: Proposed interventions in response to the topographical terracing of the site, in which housing densities are increased (Maritz 2011)

Table 5.17: Application of CAP methodology: Set of Actions and related Tasks to RFP 721 (2011)		
CAP methodology applied?		Reasons?
Identify and prioritize actions		
√	<i>Decide actions & related spatial & non-spatial interventions</i>	Urban intervention strategies proposed in response to problems and conditions that were identified
x	<i>Prioritize interventions: need, feasibility and political viability</i>	
x	<i>Consider consequence & grouping in terms of input and goods</i>	
Augmentation to Set of Actions and Related Tasks		
x	<i>Collaborative Design</i>	

5.4.3.6. CAP wall chart: *Plan for Implementation (+Community Architecture)*

Despite the inclusion of several opportunities for community engagement during the course, very little interaction with the community ensued after the first urban investigations. The lack of identification with a specific interest group meant that no specific contact could be arranged and meetings became badly attended by both students and community members. By the time individual designs were being developed, the majority of the group had reverted to familiar methods of synthesis and discussion with studio lecturers, towards a finite resolution of building mostly unrelated to the context encountered (Table 5.18). Exceptions to this were students who were overwhelmed by the interaction with community members and felt under-capacitated to contribute to the design resolution of their proposals.

Most individual proposals were considered appropriate in their identification and development of proposed programmes (Figure 5.53; 5.54). Once again, this is closely related to the urban design framework and can be achieved in a relatively short space of time through the analysis of identified spatial problems and opportunities. Whether the programmes are related to a genuine understanding of the community dynamics or derived from objective desktop style analysis determines the parameters for further evaluation from the perspective of responsiveness and value to the community.

Contrary to the previous year, the majority of the student group achieved a sophisticated level of spatial resolution in their design proposals. The lack of participatory processes and urban consideration could be considered as having been compensated for in the resolution of the design brief and ability to achieve completion of the proposal-as-product.

Once the site and programme were established, the majority of the students reverted to tried-and-tested design processes building on previous experience. This resulted in academically

strong students relying on existing skill rather than expanding their boundaries of investigation.

Largely due to the lack of continued engagement with the site or the community of Alaska after completion of the urban design framework, design proposals mostly failed to investigate the existing or latent potential for architectural expression of this community.

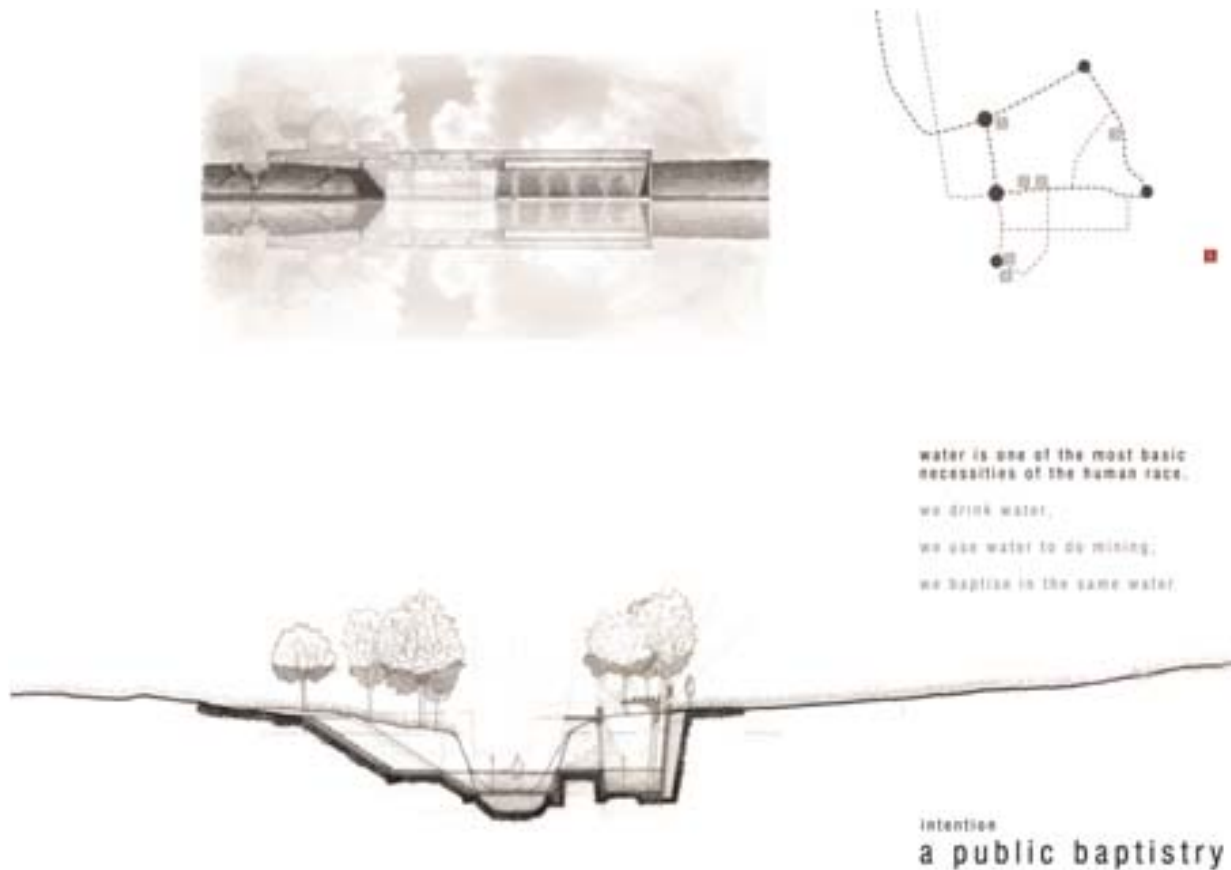


Figure 5.53: Proposed implementation of primary architectural interventions, with visual representation of project objectives: In this case, a public baptistry in response to the faith-based networks observed in the settlement (Botha 2011)

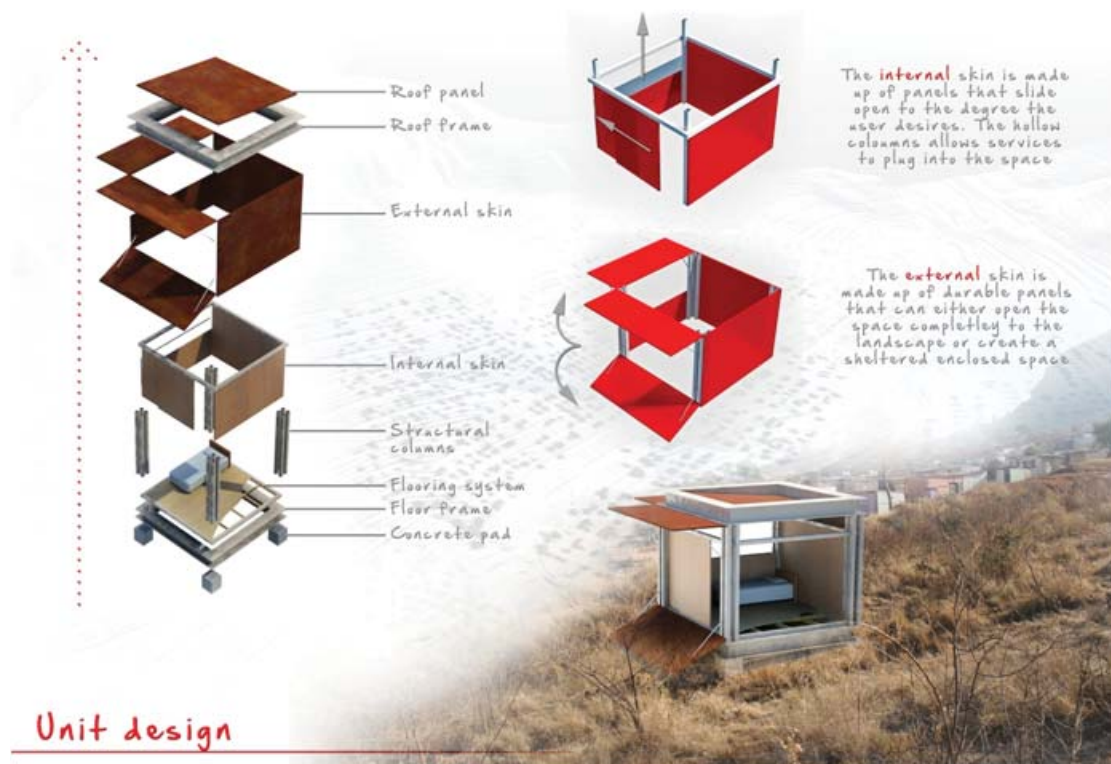
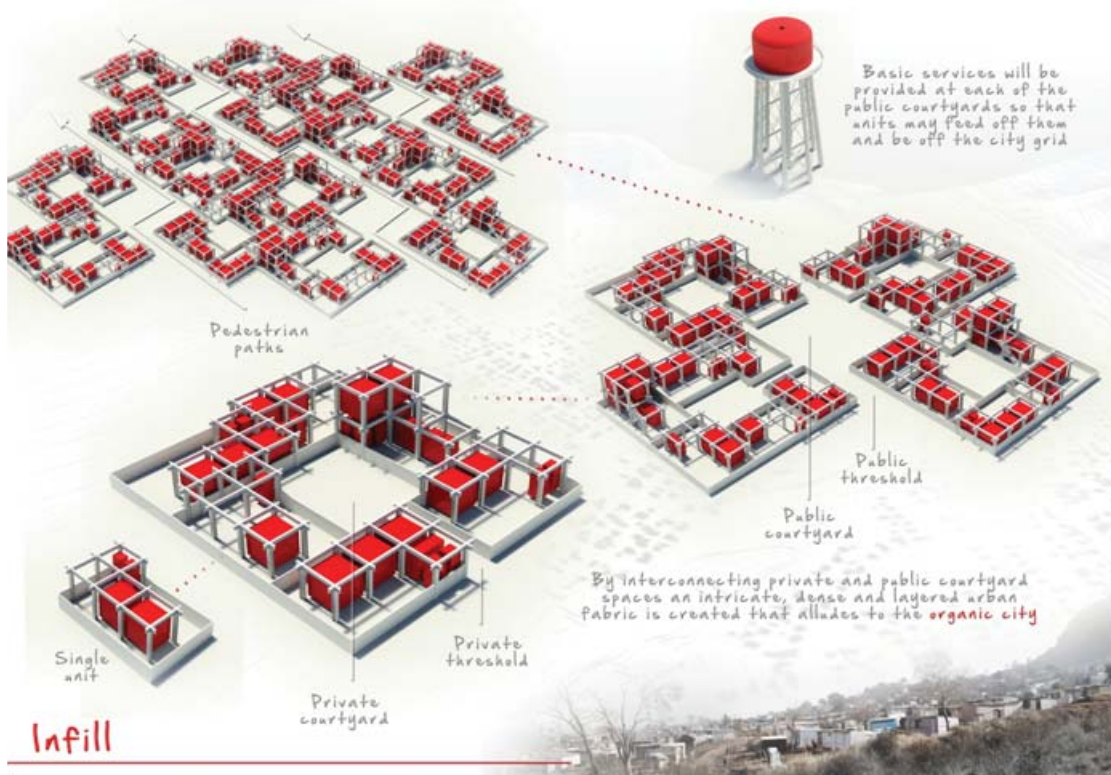


Figure 5.54: Proposed plan for implementation distilled to generic housing module, with no response to the specific requirements or capacity found in the resident community (Tenea 2011)

Evaluation by community members and studio lecturers

The individual proposals were not subjected to scrutiny by the community members. Standard critique and examination procedures were followed in the evaluation of the design proposals, inclusive of an internal panel of studio lecturers and an external panel of professional architects. Urban design frameworks were critiqued but not separately assessed: rather, they were considered in terms of the consistency between these frameworks and the individual proposals emanating from them.

From this standard procedure for evaluation, it is significant to note two particular results:

- The highest mark for the module was awarded to one of the students whose work was severely divorced from the fundamental intention of the investigation by way of reciprocal participation as suggested by CAP (Hamdi 2010). This student in particular experienced difficulty in relating to the conditions or the people in the informal settlement and quickly reverted to the isolated studio conditions. The broad intention of urban response and appropriate brief were exceptionally well resolved within the traditional expectations of architectural articulation. For this, the student was awarded the design prize for the module (Figure 5.55).



Figure 5.55 (Part 1)



Figure 5.55: Proposal for architectural implementation responding to generic and programmatic site conditions, independent of any community collaboration: Awarded highest mark for the module (Raubenheimer 2011)

- Two of the architectural students who responded particularly well to the participative aspect of the course were able to produce a comprehensive and sensitive urban intention, but failed the course due to their inability to complete the individual proposals. Despite the identification of appropriate programmes and sites for investigation, they were sensitive to the complex intersection of the collective and individual that is present in the emerging context, yet failed to capture its relevance to the architectural interpretation thereof.

Individual designs were mostly well resolved, although there was very little understanding of the finer nuances impacting on the development of architectural articulation within the emergent context. Those that attempted a deeper investigation foundered in uncertainty due to the lack of a specific point of departure and potential feedback loops.

Table 5.18: Application of CAP methodology: Plan for Implementation to RFP 721 (2011)		
CAP methodology applied?		Reasons?
Identify tasks		
√	Consider primary tasks	Primary response to problems and opportunities identified in urban design framework are proposed as architectural implementation
x	Consider constraints	
x	Establish responsibilities: Full, shared, support	
Synthesize proposal		
x	Prepare co-ordinated plan for action	
x	Executive summary of workshop	
x	Area profile	
x	Overall planning objectives	
Project memorandum		
√	Project objectives	Project objective is focused on proposed architectural implementation
x	Project implementation	
x	Project budget	
x	Plan	
Augmentation to Plan for Implementation		
x	Community Architecture	

5.4.4. Conclusion

In 2011, the student brief and expected outcomes were formalised, including certain CAP principles such as the transect walks and participatory mapping exercises. The assessment of the work, however, was mostly according to traditional architectural and urban design parameters, therefore attaching more value to resolution of product than on the students' ability to immerse themselves in the process of engagement.

Limited time spent on site and the lack of a meaningful relationship with any identifiable community structures contributed to the students relying on desk-top analysis, generic problem statements and studio-based individual design processes. Although the intention with the brief was to establish the basis of a methodology for engagement, students and assessment panels regarded these as minimum requirements or check-lists.

The strength of the 2010 engagement had been in the authentic dialogue that could develop between the organised community structure of the Slovo Park leadership and the students, who were able to respond sensitively and appropriately to the collective concerns in the settlement. The design processes related to their individual proposals, as well as those that informed the renovations to the hall, were poorly articulated. The results in 2011, however, catapulted the investigation back into the realm of traditional design methods due to the lack of engagement with the community.

The space between interacting with the collective and individual (the Achilles' heel in terms of architectural engagement with informal settlement upgrade) had not yet been successfully navigated. The following workshop series in Slovo Park during the latter half of 2011 managed to cast some light on this elusive aspect of the process as it related to CAP.

5.5. 2011 Workshop Series (Slovo Park, Johannesburg)

5.5.1. Description of workshops

Further to the student work undertaken in 2010 in Slovo Park, Johannesburg and in 2011 in Alaska, Pretoria, the proposed measures of augmentation to the Community Action Planning (CAP) *Statement of Problems and Opportunities* required investigation. Although students had attempted to document certain problems and opportunities, time constraints seemed to limit the observations to the entrenched and commodified *wish list*. For this reason, it was considered necessary to undertake an independent process to assess whether some of the augmentation measures proposed could be applied and whether they would reveal a deeper reflection of problems and opportunities in one of the settlements.

Following on the relationship established between the community of Slovo Park and the Department of Architecture at the University of Pretoria (UP), the Slovo Park Community Development Forum (SPCDF) agreed to a series of workshops with the researcher in which some of these augmentation measures to CAP could be applied (Table 5.20).

5.5.1.1. Community members involved

Due to the fact that the SPCDF had agreed to the workshop series, there was regular attendance of the workshops (Figure 5.56). The group varied considerably, however, depending on other commitments and availability, mostly between eight and ten people attending at a time (Figure 5.57). This random selection of participants was considered ideal for the purpose of the exercise, as the information gathered was intended to enrich the observations made in the Honours module using different methods of engagement. Specific data was not required as an output of the workshops.



Figure 5.56: Workshop participants making use of base map to point to specific places of interest (Melck 2011)



Dikile



Johannes



Mary



Naledi



Nombuso



Mohau



Tsidi



Matthews



Maki



Sihle

Figure 5.57: Participants in the workshop series attended intermittently, thereby offering a non-specific platform of engagement (Melck 2011)



Figure 5.58: Using trace overlays on the base maps allows for discussion of variable conditions, accessible to the researcher as well as the participants (Melck 2011)

5.5.1.2. Structure of the workshops

Various exercises were planned for the workshop series that extended over a six-month period, at approximately four-week intervals. A local tavern was made available for the workshops, furnished with a table, chairs and a white board. Materials such as colour pencils and paper were provided as necessary (Figure 5.58). Of the exercises undertaken, only those relevant to the proposed augmentation of CAP *Statement of Problems and Opportunities* will be further considered:

- *Image of Home (childhood and current)*
 - Participants were requested to draw images of their childhood homes on one side of a blank sheet of paper, with their current home depicted on the other side of the sheet (Figure 5.59). An additional exercise was undertaken in which respondents were tasked with the graphic representation of symbols depicting their understanding of home.
- *Human scale development matrix*
 - This exercise took place over two sessions, separated by a fortnight. The matrix was drawn on a white board, with the questions posed by the researcher and

the answers deliberated in the group. Destroyers and satisfiers of needs were noted alongside one another for clarity.

- *Mapping of social networks*
 - An aerial map of Slovo Park was used as a base map on which the participants could indicate where they lived, what routes they used for shopping, going to school, getting to a taxi stop, or frequenting such retail facilities as hair salons. Overlays were used to indicate the network of friends and family they were associated with. People were very quick to understand the aerial view and to see where they lived. The intimacy of knowledge of the area was evident in the discussions confirming the positions of informal traders or established places of retail or leisure.

5.5.2. Reflection on augmentation measures to CAP Statement of problems and opportunities

5.5.2.1. Image of Home

The concept of home includes the external areas and indicates the prominence of service points such as toilets and water standpipes, with trees and shrubs indicated.

There is a clear consciousness of massing and grouping of buildings, with an indication of ownership and complex multi-family accommodation attributed to each dwelling unit.

Drawings are often complex amalgamations of plan, section as well as 3-D representation, mostly in a bird's eye view (Figure 5.60; 5.61; 5.62).

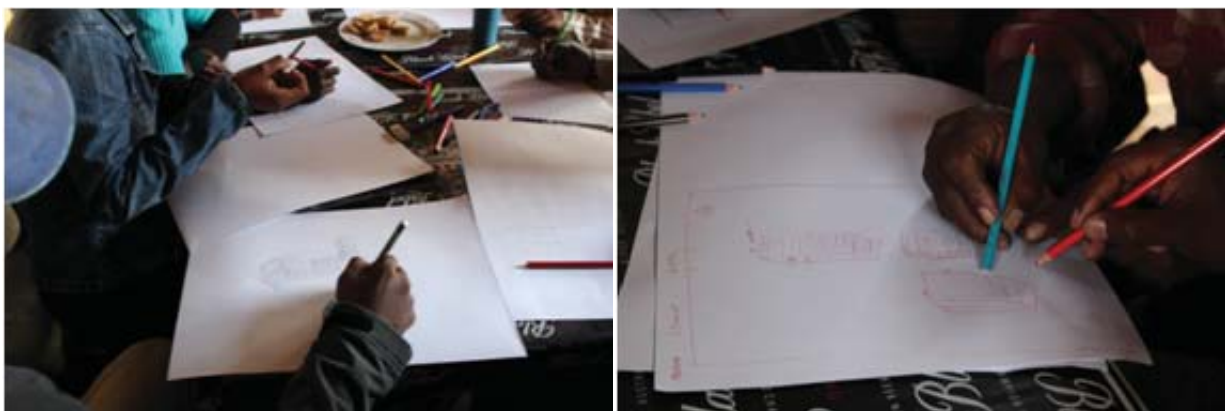


Figure 5.59: Participants drawing images of home (Melck 2011)



Figure 5.60: Image of home in which complex family arrangement is illustrated, with spatial indication of territory and hierarchy

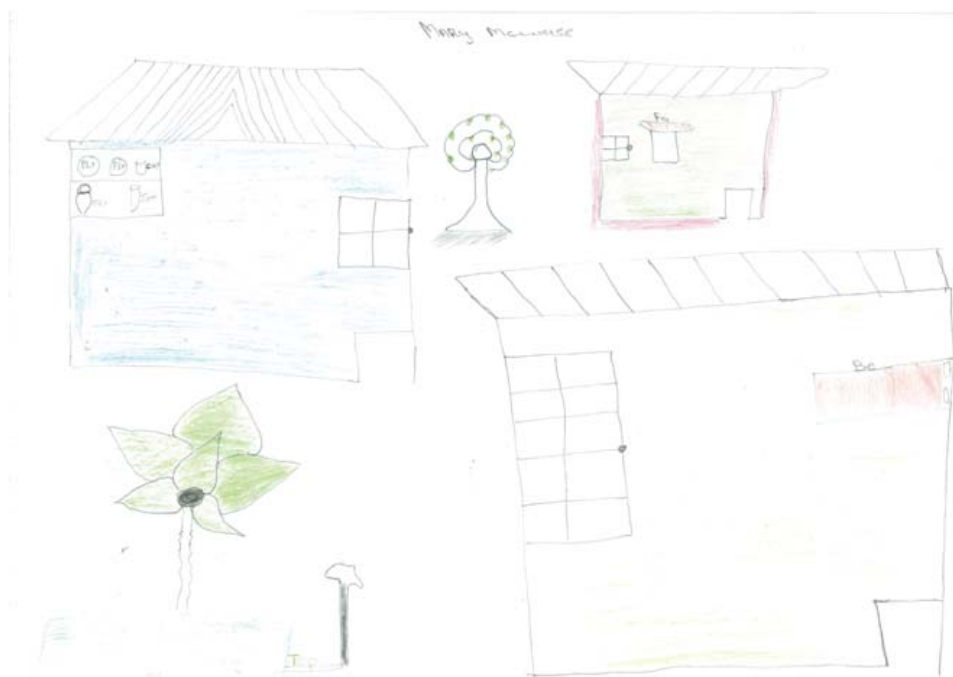


Figure 5.61: Image of home where plan, section and elevation are interwoven in the representation of the space. Attention paid to external elements including tree and water tap



Figure 5.62: External rendition of home in 3-D, including the stand water pipe, external pit latrine, tree and house number

The exercise in which participants were requested to draw their childhood homes proved to be very rich and insightful. Respondents also enjoyed this exercise, as it allowed them some respite from the anxieties of current conditions.

Whether growing up in a rural area or another township, all the respondents drew their homes as extending to areas outside and around built structures. The houses are mostly drawn externally, as objects in the landscape, on par with or smaller than the human figures or trees depicted on the page. The trees are often seen to have played an important role as a place where stories were told by grandparents about days gone by. Narration also seems to have taken place in the central structures, mostly depicted as round, thatch huts (Figure 5.63; 5.64; 5.65).

The prevalence of agriculture is strongly indicated, with gardens and *kraals* (animal pens) featuring prominently.

Along with the typically round hut, there is often an indication of a rectangular building, which is indicated as a visitor's house. During the interviews, this was confirmed as the place where

the fancy kitchen and furniture would be housed and used to entertain visitors. On a day-to-day basis however, cooking, sleeping and eating would occur in the round huts. This is also where the story telling by grandma would continue (Figure 5.66).

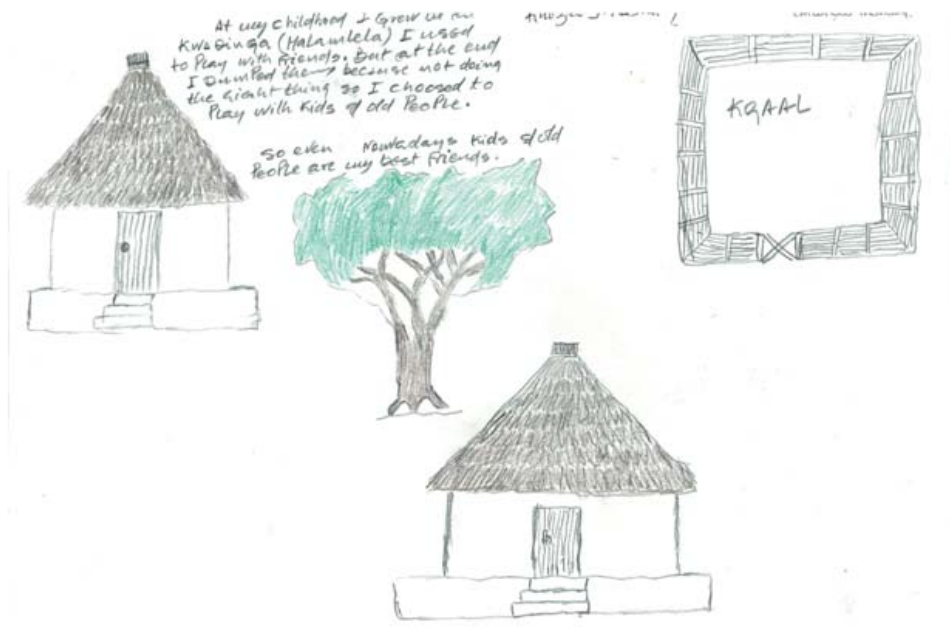


Figure 5.63: Clear rendition of Rondawel-type structures representative of original home in rural setting. Importance attached to animal pen and central tree, where stories were shared

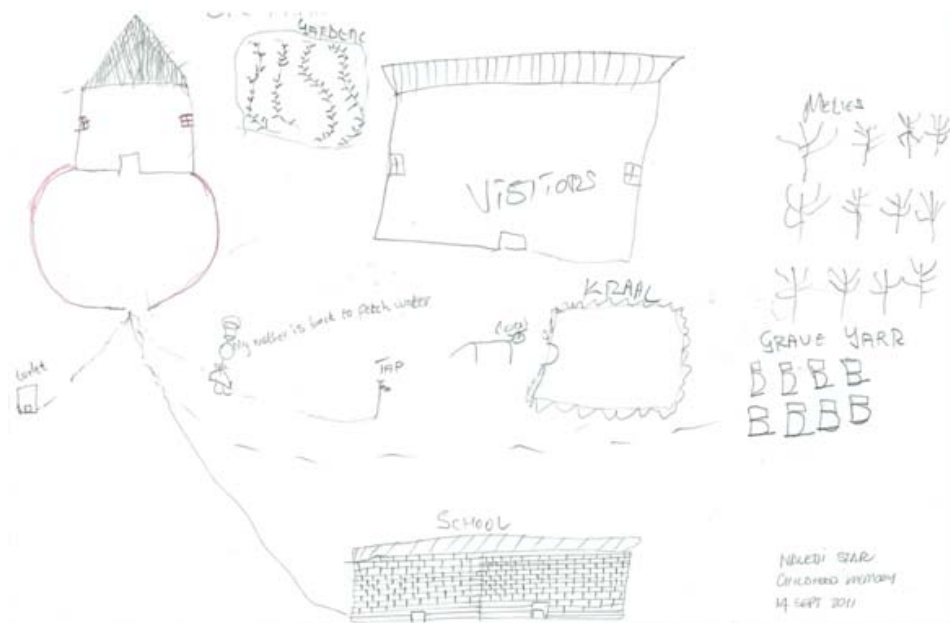


Figure 5.64: Illustration of external spaces as reflective of the concept of home, inclusive of agricultural activities. Differentiation between dwelling typologies associated with family (rondawel) and visitors (rectangular structure with pitched roof). School indicated as brick structure.



Figure 5.65: Differentiation between rondawel-type structure and rectangular structure with pitched roof. Inclusion of tree, focus on cooking pot, family members as well as external animal pen

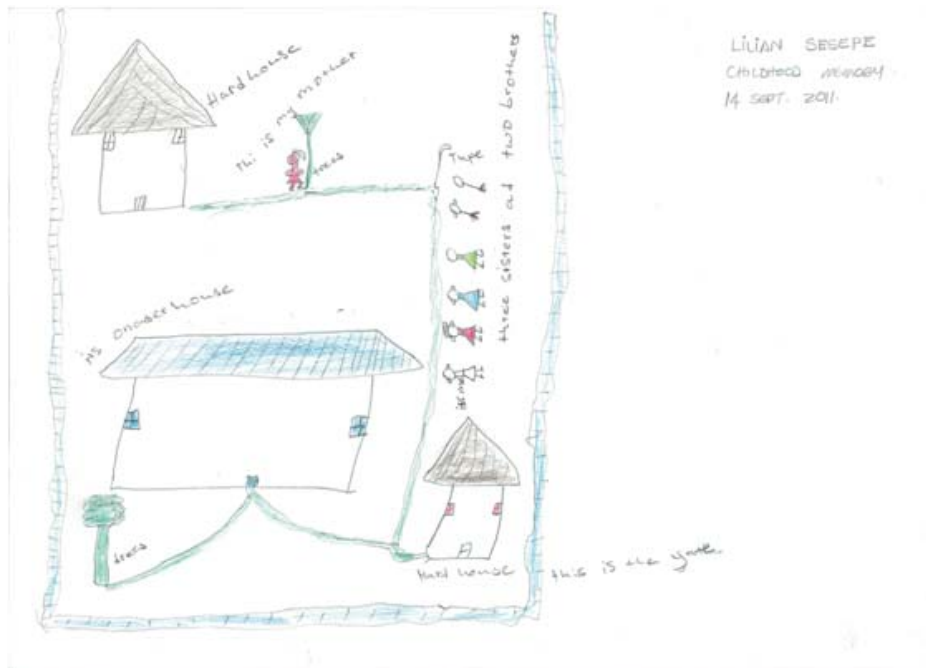


Figure 5.66: Differentiation between rondawel-type structures housing family, with visitors accommodated in the rectangular structure with a pitched roof. Home placed within the yard definition, representation of extended family. Acknowledgement of trees.

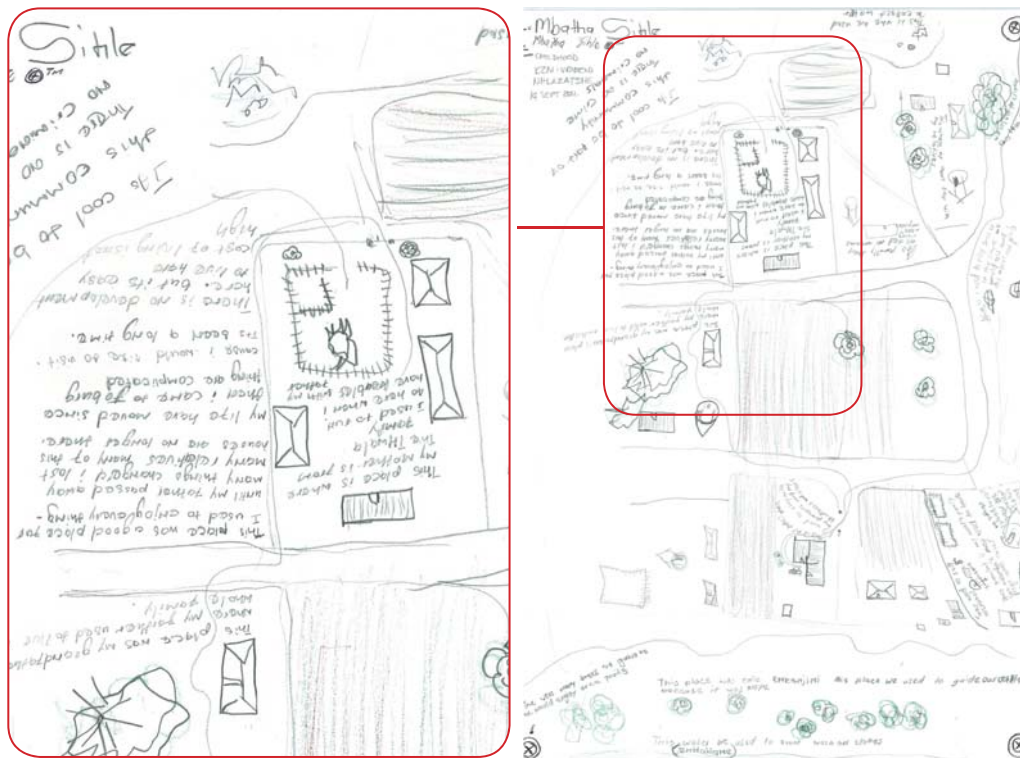


Figure 5.67: Rich landscape of childhood memories inclusive of extended family, natural landscape, agricultural activity, variety of built structures, intermingled with narrative of childhood games and sense of security

Two male respondents indicated a vast web of social interaction. They both roam freely between home, school, watering points and places of social interaction (Figure 5.67). It is interesting to note that both have similar territories of roaming within Slovo Park, natural ability to connect with people, the ability to entertain the vision beyond the immediate context and an apparently natural sense of leadership.

External services, toilets and cooking are indicated, such as fetching the water required from a distant point.

Social complexity is evident in the indication of mothers, siblings and grandparents, who all make up part of the family unit.

Colour is used to indicate landscape features, as well as the buildings signifying home. Pathways and groundlines are mostly indicated. Fences, or territorial awareness, is also in evidence.

In contrast to the colourful images of the childhood homes, the current conditions are illustrated as being extremely simplified and impoverished and utilitarian. Simple line drawings, devoid of an indication of extended family or places of narration have been used. External services are seen as negative: smelly pit latrines (Figure 5.68).

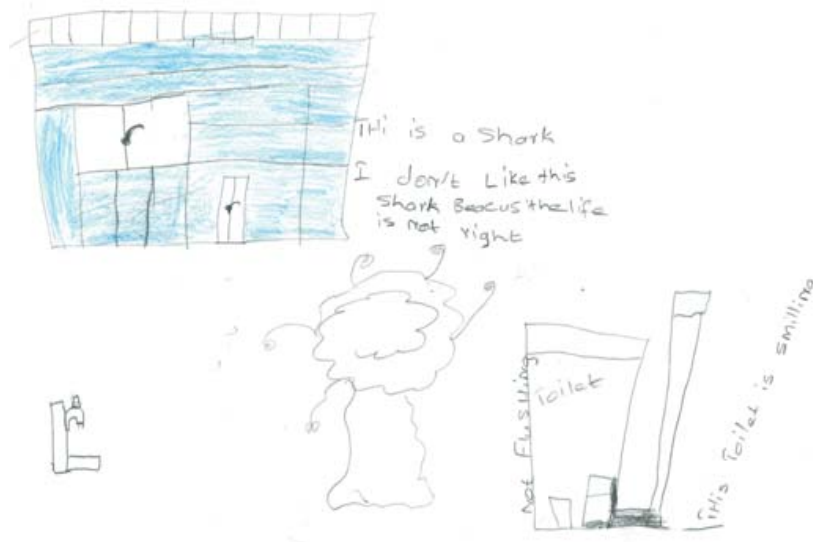


Figure 5.68: Prominent illustration of odorous pit latrines along with external tap. Dwelling structure seen as simple, devoid of the richness of the childhood home

Symbols and pictogrammes became intertwined with the re-assertion of the ever-prevalent *wish list*. In some cases, deeper aspirations were able to surface as representations of a future self-expression; both of the individual as well as of an imagined society (Figure 5.69).

The desire for peace featured in many of the drawings, seen as currently undermined by crime, witchcraft and government corruption.

Great value is placed on the establishment of formalised road surfaces, electricity, brick houses. In most cases, the drawings of an idealized home are of brick-walled structures with tiled roofs. The aspiration to Reconstruction and Development Programme (RDP) homes is evident, along with such amenities as cooking and television (Figure 5.70).

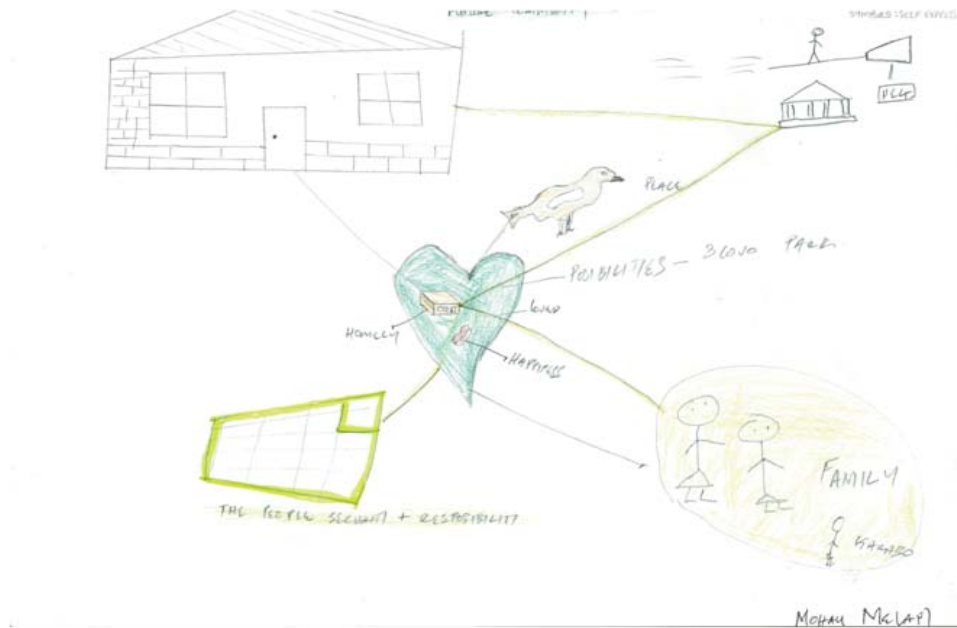


Figure 5.69: Aspiration for institutional acknowledgement of Slovo Park, peace and the possibility of future stability and growth



Figure 5.70: Aspiration expressed in double-storey structure equipped with furniture and appliances, abundance seen in pots cooking on the stove

5.5.2.2. Human scale development matrix

According to the respondents, Slovo Park in its current format satisfies most of the needs of the community: the sense of belonging to this social entity performs the role of offering an

identity to people who come from various places from around the country. The social drive and networking offers a sense of security and ownership. Places that destroy fundamental needs and embody a sense of *otherness* or *foreign-ness* include the affluent suburbs of Johannesburg, Eldorado Park and Kliptown.

Taxis appear to be a problem for the women, as there seems to be some intimidation by the drivers. Taverns are seen as places that destroy security, understanding and survival. There is also a deep mistrust of bureaucracy, officialdom and government in general. Far from being seen as a haven or refuge, all responses regarding government point to the destruction of fundamental requirements. There seems to be ambivalence regarding the role of the church as *spiritual home*, in some cases being seen as contributing to the satisfaction of the need for security, while at the same time destroying the need for leisure.

The activities listed as being representative of satisfying fundamental needs indicate a community richly endowed with creativity. Physical expression in music, chanting, dancing are seen as satisfying needs of identity, creativity, leisure, love and security. Political activism is seen as satisfying needs of identity, creativity, participation, understanding, love and security.

Entrepreneurial spirit is evident in the allusion to the start-up of businesses as being seen as satisfying the needs of survival, participation, identity and freedom. The role of cell-phones and the Internet is also recognized for satisfying the requirements of creativity, leisure, understanding and security.

Factors that contribute to the destruction of fundamental needs are concentrated in the frustration of not being listened to, being manipulated and misinformed. These external factors are compounded by internal problems of selfishness, jealousy and fear, all giving rise to a lack of trust and high levels of crime and violence within the settlement.

An important issue that was brought into the discussion is the cultural aspiration that is undermining older means of survival. This would typically lead to a disinterest by the youth in pursuing urban agriculture, for instance, which is seen to represent an older, more *backward* generation. Leisure time is thus happily spent on sleeping, listening to music and playing cell phone games, rather than cleaning the home or yard.

Overcoming laziness was noted down as an obstacle that contributes to the destruction of the need for survival. This recognition that time could be more creatively appointed is an interesting pointer to a desire for improvement, but a lack of direction or vision to garner that energy or motivation.

From the *Doing* column of the matrix, one may draw the conclusion that the creative energy in the community exists in a fragmentary way, and is often manipulated against their own will due to a lack of coherence or direction. The ability to be mobilized comes from an eagerness to participate, but remains reactionary and in the hands of the manipulators rather than within their own authority. This would be the crucial aspect of any transformative attempt within the settlement to understand, and to overcome.

Although there is an acknowledgement of the wealth of the macro-context, from laws, police and constitution through to the acknowledgement of social cohesion and the value of community, it is in the perceived lack of commodities that the great dissatisfaction resides, evident in the *Having* column. Here, too, one sees the emergence and the casting in stone of the *wish-list*: There is no electricity, no airtime, no personal computer, no car, no discipline, no information, no access to network, no sewerage, no services...and a very big expectation that once these things are in place, the satisfaction of all needs will be met. A lingering prejudice and struggle against a continuation of apartheid underscores this sense of impoverishment.

Eventually, in terms of *Being*, the matrix indicates a community that has the potential to engage creatively, that can be emotionally resilient, have an abundance of joy, generosity, solidarity, accountability, creativity and confidence. Currently these aspects are undermined by frustration, fear, stress and suspicion.

The matrix (Table 5.19) seems to reveal a community that has a well-developed sense of place and belonging, with an emotional investment in their social cohesion. The creative potential is being frustrated by a lingering sense of disempowerment and manipulation, constantly exacerbated by the cycle of poverty that they are collectively unable to overcome. The will exists to effect transformation, although it is not clear where this energy should be focused.

Table 5.19

Human Scale Development Matrix

5.5.2.3. Social networks

There appeared to be a greater mobility and wider social network among the men than among the women. The men have many acquaintances and frequent *shebeens* (bars), gyms or friends' homes. The women seem to be more housebound, limited to a few female friends and travel to specific task-related destinations. Routes chosen by the women are also influenced by security concerns that seem to be less of a consideration for the male participants.

The value of this exercise is to be seen in the social interconnectedness within the settlement. Various committees within Slovo Park were identified, such as the Church Forum, the Business Forum, Crime Forum and Development Forum. The Block Committees are also an important aspect of the social structure that serves as a line of communication between the leadership and the broader community (Figure 5.71).

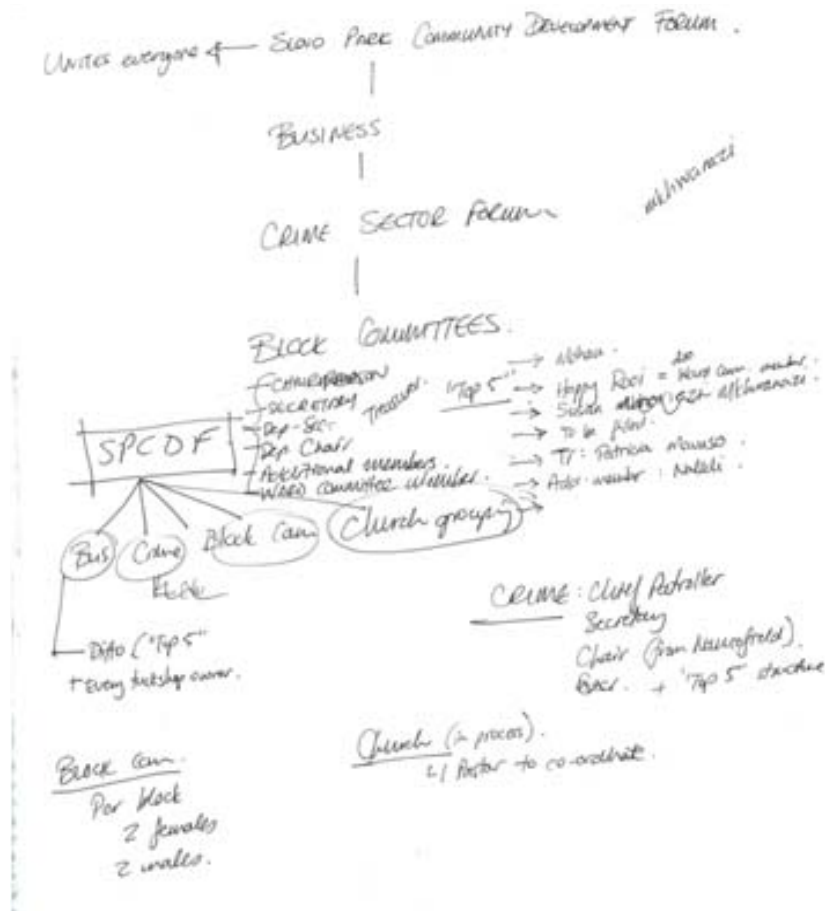


Figure 5.71: Extract from field notes in which Slovo Park Community Development Forum structure was explained

Table 5.20: Application of augmentation to CAP Statement of Problems and Opportunities

CAP methodology applied?		Reasons?
x	<i>Testimonio</i>	
√	<i>Image of Home</i>	Images of home reveal extent of territory, importance attached to structures, family hierarchy, memory and aspiration
√	<i>Human Scale Development Matrix</i>	Human scale development matrix reveals satisfaction and frustration of needs
√	<i>Network Analysis</i>	Network analysis reveals organizational structure and importance of social capital within the settlement

5.5.3. Conclusion

As discussed in chapter four, one of the limitations of Community Action Planning resides in the simplification of a *wish list* that could be reduced to the requirements for basic services in an informal settlement. During the 2011 workshop series in Slovo Park, it was possible to explore some of the deeper concerns and considerations by way of the augmentation measures proposed earlier in the thesis.

Among the most significant outcomes was evidence of the deep, well-organised social structure in the settlement as well as the stratified and complex articulation of hope and aspiration, clearly offset against distrust and disappointment regarding current government practices.

The exercises that involved drawing or model building were easy to implement, with participants clearly enjoying the process and often engaging in spontaneous narratives that revealed much about their quotidian experiences in the settlement, among friends and in the face of daily challenges. By listening closely to these conversations, a nuanced understanding beyond a *wish list* could be formed. This confirmed the value of both the *Testimonio* as well as the *Image of Home* as referred to in chapter four.

Although the needs matrix proposed by Max-Neef proved to be a very valuable tool that could give deep insight into the needs of the community, it was fairly difficult to apply. From this experience was clear that such a sophisticated methodology may be inappropriate for application by students at the Honours level, although there would be value in referring them to the principles.

In reviewing the preceding student outcomes in the light of the workshop series, the difficulty that architecture students experienced in translating the community's needs into architectural

responses could be ascribed to the lack of understanding regarding the differentiation and stratification within the community group. The collective was seen as generic, with the individual seen as its polar opposite. Through the workshop series and seen in the light of network analysis as described in chapter four, a stronger focus on identifying the social structure and its spatial manifestation would be included into the following brief.

See also:

Addendum 5.14: Slovo Park (2011) Workshop Series: Film

Addendum 5.15: Workshop series: Certificates of attendance

5.6. 2012 RFP 721 (Slovo Park, Johannesburg)

5.6.1. Research and design studio

5.6.1.1. Number of students enrolled

Eight architecture students and six landscape architecture students chose to work in the informal settlement of Slovo Park after being offered the choice between this site and three others in the Pretoria vicinity. Although the individual proposals developed by the landscape architecture students fall outside of the scope of this thesis, their contribution to the development of the urban design framework is significant in addressing some of the immediate concerns affecting informal settlements: storm water ingress and impact on access routes & flooding; urban agriculture as a vehicle for the closed-loop management of human waste; the interface between the public realm and individual threshold that defines the architectural boundary.

5.6.1.2. Site of engagement, history and relationship with the community

Following on the workshop series conducted in Slovo Park during 2011, a deeper understanding of the complex structure and needs within Slovo Park was developed. The possibility of engaging with the community for a further iteration of the course methodology was discussed with the SPCDF, who agreed to host the new student group with a more defined understanding of the expected roles and outcomes, both on the side of the students as well as the community members.

An added dimension of the interaction during 2012 was the studio guidance being done by one of the previous students from the 2010 group, who graduated at the end of 2011. The experience gained during 2010, along with a Master's dissertation that built on the principles of engagement in informal settlements (Bennett 2011) implied that this candidate architect was able to offer immense richness to the 2012 iteration of the course.

5.6.1.3. Student brief and assignment

The parameters of the brief became more explicitly aimed at achieving a balance between process and product that would reflect the problems as well as the opportunities inherent in the settlement. The lack of meaningful participation in the 2011 exercise is specifically addressed by including the requirements of presentations to the community, following their involvement in the mapping and problem-identification processes (Addendum 5.16).

In terms of the difficult transition between the collaborative process underpinning the urban investigation and the translation into architectural resolution, the brief became very specific. Programmatic requirement and scale of complexity is defined, as well as the requirements regarding urban relationship and spatial resolution. An enabling environment towards emotional ownership is proposed as the ultimate outcome of the designs developed during the course.

5.6.1.4. Schedules: Studio, assessment and community interaction

Urban framework crits were scheduled early in the quarter to allow more time for design development during the six week period. Specific allowance was made for community mapping during the first week of engagement, with presentations of the urban framework to the participating community. Although there was only one other day set aside for community presentation, the group working in Slovo Park continued regular site visits of their own accord. One interim crit was scheduled for the individual design work (Addendum 5.17).

Assessments and crit reports

Urban Design Framework: 20% of final mark

Individual design proposals: 80% of final mark

The Urban Design Framework developed by the group working in Slovo Park was credited with an *Above Average* commendation during the final crit. A responsive approach to sustainable and integrated livelihood was developed that built successfully on the understanding of the social structures and existing skills in the settlement.

Individual design responses were well researched and analysed, with complex programmes proposed in response to the various social forums in the community. Spatial resolution and threshold conditions did not achieve the same level of comprehensive sophistication as the urban design framework. One student was awarded a distinction for the successful synthesis of the participatory process and subsequent architectural proposal (Addendum 5.18).

5.6.2. Theoretical support

5.6.2.1. Student brief and assignment

The theory course maintained the same syllabus themes as in the previous year, offering a comprehensive view of urban analysis and mapping as well as considering participatory processes in the light of design authorship (Addendum 5.19).

5.6.2.2. Lecture themes

The lecture themes and seminar-style discussions remained the same as in the previous year.

5.6.2.3. Reading list

The reading list remained the same as in the previous year, with the addition of recommended reading that was intended to expose the students to a more critical position regarding the political aspect of informal settlement upgrade, such as the newly published work *Cities With Slums* by Huchzermeyer (2011).

5.6.3. Reflection on application of CAP methodology

5.6.3.1. CAP wall chart: *Introduction*

The relationship with the community of Slovo Park was firmly established through the preceding experiences. Due to the continuity brought about with the young graduate who had been part of the 2010 group, the community leaders undertook an authoritative role in guiding the new group of students through the social and political intricacies of the settlement (Figure 5.72; 5.73; Table 5.21). Effectively they became the external mentors to the student group, confirming a partnership relationship rather than an architect-as-expert condition as seen during the 2011 engagement in Alaska, Pretoria. Base plans developed by students in the previous years were made available for further refinement to this group (Figure 5.74).



Figure 5.72: Introduction between student group and Slovo Park Community Development Forum (Bennett 2012)



Figure 5.73: Students accompanied by SPCDF members through settlement on transect walk (Bennett 2012)



Figure 5.74: Base plan situating Slovo Park within its immediate context adjoining Nancefield industrial area and the N12 highway (Buchner 2012)

Table 5.21: Application of CAP methodology: Introduction in RFP 721 (2012)		
CAP methodology applied?		Reasons?
Participants		
✓	Community members	Introduction to SPCDF as continuation of established relationship
x	Gvt representatives	
x	NGO's	
✓	Workshop moderator	Moderation undertaken by community leadership and lecturer in mentoring capacity to students
Arrangements		
✓	Objectives	SPCDF and students clear about the objectives of the engagement
✓	Commitment	Commitment framed within the constraints of the course structure
✓	Goals	Goals clarified in student brief and understood by SPCDF
✓	Location	Introduction on site in Slovo Park informal settlement
Materials		
x	Presentation	
x	Tables and chairs	
✓	Base plans	Base plans as used in previous engagement refined
x	Folders	
✓	Cameras	Visual documentation using video and still photography
Event		
x	Refreshments	
x	Reception	
x	Invitations	
x	Certificates	

5.6.3.2. CAP Wall chart: *Statement of Problems and Opportunities (+ Needs Assessment & Network Analysis)*

Community issues and observations were imparted through unspecific community representation. Due to the established relationship between the residents of Slovo Park and the University of Pretoria lecturers and researchers, there was an ease of communication that ensured a rich interaction between students and community (Table 5.22).

Regular meetings on site ensured that the students were afforded many opportunities for reflection and assimilation of the information on the ground (Figure 5.75). The specific identification of the active organisational structures within Slovo Park resulted in the students responding to the requirements of the Business Forum and the Community Development Forum, recognising the association of crèche owners and including into their proposals the further formation of an Agricultural Forum.



Figure 5.75: Multiple opportunities for engagement between students and community allowed for a broad spectrum of impressions and sharing of information that contributed to a rich understanding of the dynamics in the settlement (Taljaard 2012)

The striation within the community was documented as an organogram (Figure 5.76), affording insightful evidence of the organization and requirement for stability within the community. This illustrates the false binary condition implied by *formal* vs *informal* as it became evident that

highly formalized codes of conduct exist within this social hierarchy, dispelling the notion of an informal and amorphous collective.

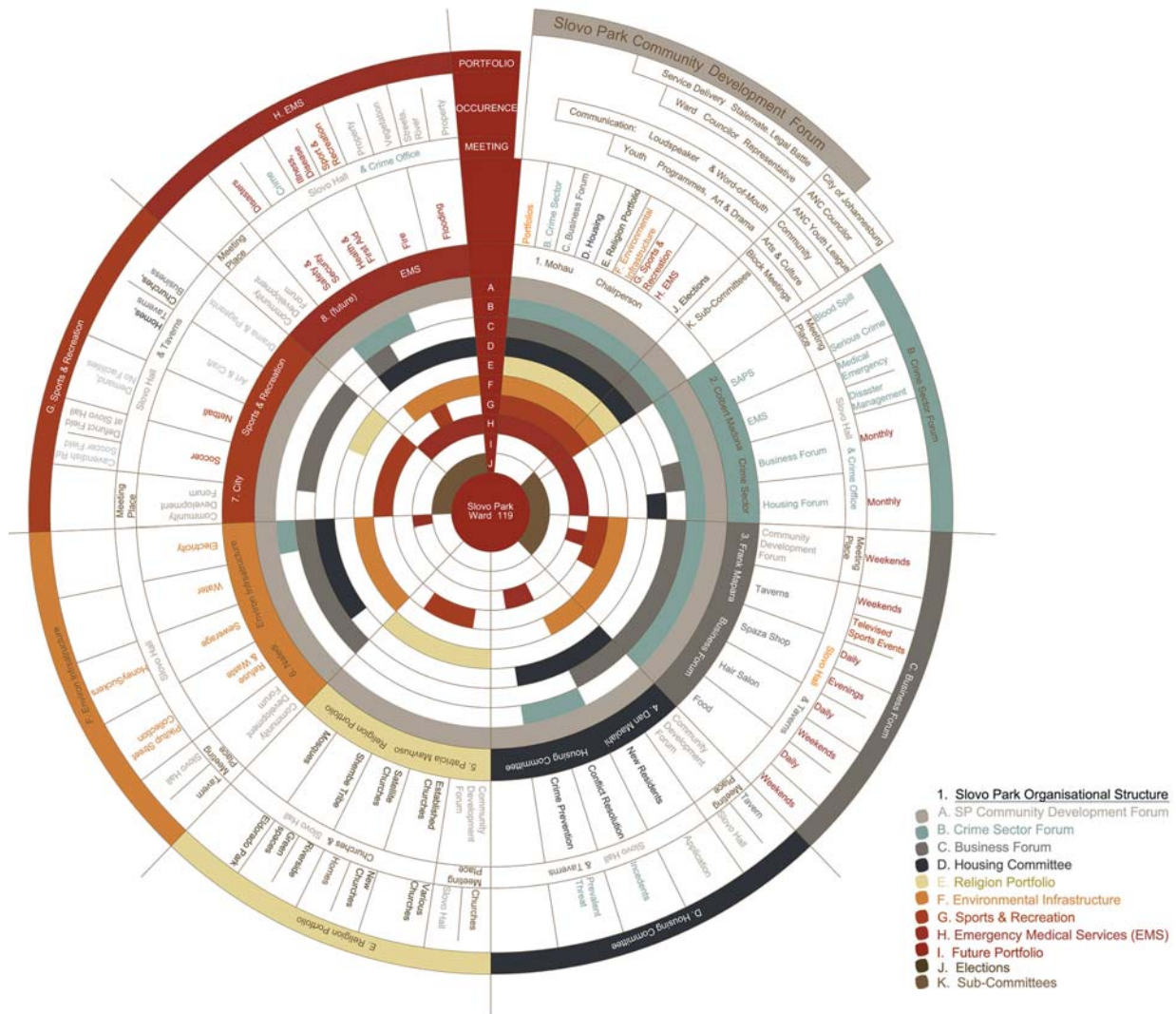


Figure 5.76: Organogram of social structure in Slovo Park (Horzook 2012)

The collective *Testimonio* of the Slovo Park community was captured in a documentary film produced in a collaborative effort between a Masters student at the Drama Department at UP, one of the 2012 Honours students and the lecturer guiding the 2012 studio in Slovo Park, named *Waterborne*. This documentary serves to highlight the collective appeal to social justice manifested in the installation of waterborne sewerage in the settlement. The film contributed further to the basis of understanding that influenced the work undertaken in the 2012 iteration of the module (Melck, Buchner & Bennett 2012).

In addition to the *Waterborne* documentary, the situation in Slovo Park was documented

as part of a film (Figure 5.77) prepared for a conference entitled *Sustainable Human(e) Settlements* hosted in Johannesburg in 2012 (Mntambo 2012). This further served to augment the Statement of *Problems and Opportunities* as described in the CAP methodology.



Figure 5.77: Filmed interviews for Sustainable Humane Settlements conference held in Johannesburg in 2012 (Bennett 2012)

Table 5.22: Application of CAP methodology: Statement of Problems and Opportunities in RFP 721 (2012)		
CAP methodology applied?		Reasons?
Context		
x	Professional speakers	
x	Notes of key issues	
Community issues		
x	Overview by planner	
√	Community representative	Unspecific community representatives engaged with students in ad-hoc fashion
Community observations		
√	Look and listen	Multiple engagements ensured layered observations and opportunities to engage in conversation
√	Talk and write	Students were encouraged to document community perspective comprehensively
√	Review problems	Problems were collated and considered in community context
Augmentation to Statement of Problems and Opportunities		
√	Testimonio	Collective Testimonio was documented by way of film documentaries: <i>Waterborne</i> and <i>Sustainable Humane Settlements</i> conference in Johannesburg
x	Image of Home	
x	Human Scale Development Matrix	
x	Network Analysis	

5.6.3.3. CAP wall chart: Documentation of Key Information

As a point of departure, it was agreed that all preceding documentation developed during engagements with Slovo Park would be accessible for the 2012 students to layer their findings, avoiding repetition in favour of a layered and enriched understanding of the settlement (Figure 5.78; Table 5.23).



Figure 5.78: Base plan indicating locality of Slovo Park, public access, nodes of importance, public amenities and urban fabric (Taljaard 2012)

Cross-sections of the settlement contributed to a spatial understanding of the physical conditions, enriched through an overlay of the non-physical conditions that related to the networks that had been identified in the organogram of Slovo Park's social structure (Figure 5.79).

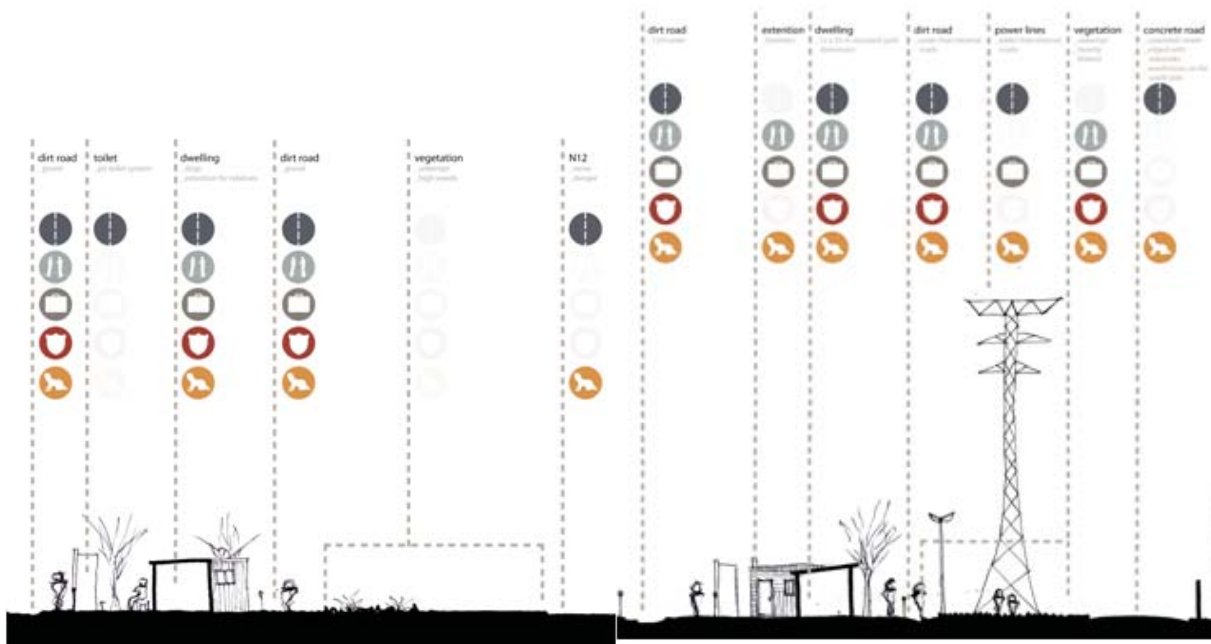


Figure 5.79: Cross-sections of settlement indicating scale and spatial condition in its relationship to the non-physical conditions identified through the social mapping of the settlement

Table 5.23: Application of CAP methodology: Documentation of Key Information in RFP 721 (2012)		
CAP methodology applied?		Reasons?
Base Plan		
✓	Site plan	Site plan evolved through sharing of information with students from previous years
✓	Agree on scales of information	Scale of information appropriate to issue being illustrated
✓	Indicate public uses	Public uses indicated
✓	Indicate public access	Public access indicated
x	Relative land values and potential	
✓	Circulation, access routes, site boundaries	Most significant routes indicated, site boundary clearly acknowledged
Spatial Physical Elements		
✓	Document existing conditions	Photographic documentation of existing conditions
✓	Document proposals from existing Masterplans	Greater metropolitan area of Johannesburg: Public access to documentation, incorporated into shared body of knowledge
✓	Document infrastructure services	Lack of infrastructure services verified through collective <i>Testimonio</i> . Self-installed water points indicated by residents
Non-physical elements		
✓	Document existing conditions	Existing social structures and concerns documented through regular engagements with community members
x	Document proposals from existing Masterplans	
✓	Indicate political boundaries, community territories	Variety of territorial boundaries indicated in cross sections of settlement

5.6.3.4. CAP wall chart: Making Community Map (+PGIS)

The community map represents a composite layering of information by all the students involved, following regular visits to the site and specific social groups that were identified in the community structure of Slovo Park (Figure 5.80; Table 5.24). In this way, students were *inter alia* able to engage specifically with the Business Forum, the Police Forum and the crèche owners. Each one of these groupings was able to contribute a particular vantage point to the issues of concern, thereby enriching the base plan (Figure 5.81; 5.82).



Figure 5.80: Regular meeting with the community on location ensured multiple opportunities to participate in the completion of the base plan, documenting concerns, opportunities and use patterns (Horzook 2012)



Figure 5.81: Compilation of base plan indicating focused activity nodes that are supported in the understanding of the social structures in the community (Taljaard 2012)



Figure 5.82: Informal conversations in which the principles of the base plan are shared between the community representative and a lecturer (Bennett 2012)

Table 5.24: Application of CAP methodology: Making Community Map in RFP 721 (2012)		
CAP methodology applied?	Reasons?	
Complete Base Plan		
√	<i>Meet with community on location</i>	Regular meetings with various community groupings were held on location, contributing to a layered base plan
√	<i>Map community concerns and opportunities</i>	Concerns and opportunities of the various social groupings were documented, focusing on identified nodes of activity
√	<i>Patterns of use</i>	Use patterns were identified through discussions with the various social groupings in the settlement
Dwelling Typologies		
x	<i>Document use: plot sizes: tenure: building types</i>	
x	<i>Document family story, past and future expectations</i>	
x	<i>Describe physical characteristics</i>	
x	<i>Plot plan: dwelling, uses, dimensions</i>	
x	<i>Photograph or sketch of dwelling</i>	
x	<i>Table of basic data</i>	
Augmentation to Making Community Map		
x	<i>PGIS</i>	

5.6.3.5. CAP wall chart: Set of Actions and Related Tasks (+Collaborative planning)

The understanding that Slovo Park would benefit from greater connection to the adjoining Eldorado Park and Kliptown (from 2010) was assimilated as part of the urban intention. Learning from the augmentation exercises undertaken during 2011, the group then focused on discovering the latent possibilities and opportunities within Slovo Park towards a sustainable livelihood strategy (Figure 5.83).

Approaching the investigation from a perspective supporting in-situ upgrade, certain key concerns were reconfirmed: the lack of basic services, the prohibitive electrical servitudes running through the settlement, the ill-defined access routes on the one hand and the security risk of the highway on the other.



Figure 5.83: Discussions with community members in response to student investigations, confirming issues of concern in support of developing the urban design framework proposal (Horzook 2012)

From the documentation of these problems and regular interactions with members of the Business and Community Development Forums, students were able to identify the potential assets within the community (Table 5.25):

- the ability to co-ordinate action;
- the entrepreneurial spirit;
- the agricultural skills asset evident in the maintenance of vegetable gardens in the area;
- the accessible location in terms of trading opportunity.

Building on a theoretical basis in which closed-loop systems of consumption and production are favoured and benefiting from the aforementioned collaboration with landscape architecture students, the group proposed a sophisticated yet simple approach of capitalizing on waste to create opportunities for production. This would then spiral into the added benefits of retail opportunity, heightened security for children, sport and leisure facilities and an increase in rental housing stock to the benefit of the residents through the community organizational structure (Figure 5.84).

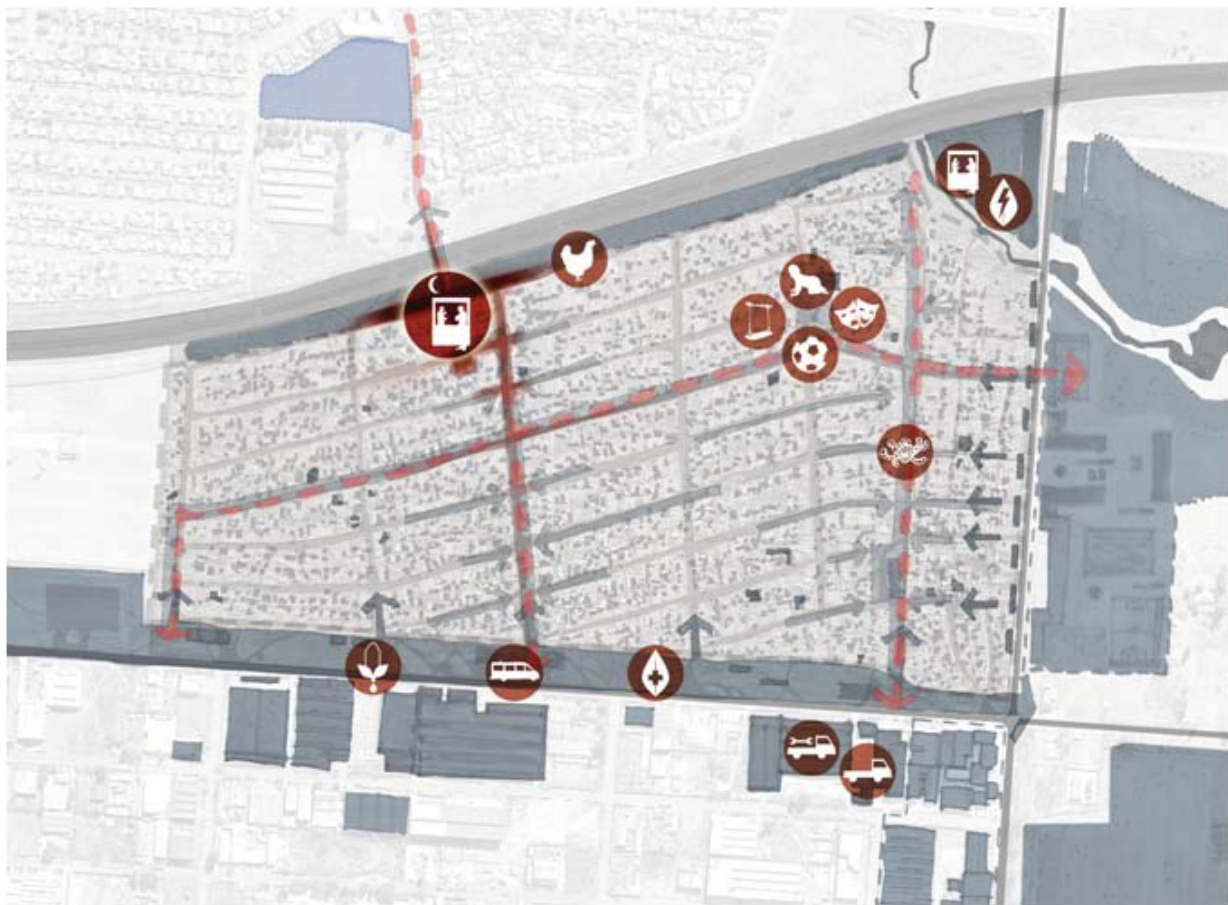


Figure 5.84: Urban strategy in which proposed interventions support an action plan in which the socio-economic resilience of the Slovo Park settlement is supported (Taljaard 2012)

An intense and productive feedback loop existed between the students, their hands-on guidance from the recently graduated professional, the internal panel of lecturers as well as the senior members of the Slovo Park Business Forum.

Table 5.25: Application of CAP methodology: Set of Actions and Related Tasks in RFP 721 (2012)		
CAP methodology applied?		Reasons?
Identify and prioritize actions		
√	<i>Decide actions & related spatial & non-spatial interventions</i>	Interventions proposed embracing spatial and non-spatial attributes
√	<i>Prioritize interventions: need, feasibility and political viability</i>	Interventions prioritized according to needs assessment established through participatory processes
√	<i>Consider consequence & grouping in terms of input and goods</i>	Multiple layers of contribution by various stakeholders anticipated in proposed interventions
Augmentation to Set of Actions and Related Tasks		
√	<i>Collaborative Design</i>	Regular engagement between students and specific social structures within settlement account for collaborative decision-making

5.6.3.6. CAP wall chart: Plan for Implementation (+Community Architecture)

The establishment of a sound urban design framework based on rigorous analysis and documentation through active participation with the inhabitants impacted positively on the ability to successfully identify loci of intervention. The success of this framework further contributed to the identification of causal links between the proposed interventions that answers to the requirements of the brief to provide opportunities for stabilization of the settlement (Table 5.26).

Individual design projects were scrutinized by specific members of the community who would be affected by the proposed interventions. Many of the students prepared cardboard models proposing more than one alternative, that were discussed on site with people who were happy to comment on their understanding and preferences. In this way, the majority of the architecture students appeared comfortable to subject themselves and their designs to a collaborative partnership approach, appreciating the enrichment that ensued from this (Figure 5.85).



Figure 5.85: Students in discussion with community members in response to design proposals (Bennett 2012)

Design proposals proved to be programmatically rich and responsive to the site, the conditions within the settlement and the needs identified through the regular and consistent interaction with the community (Figure 5.86). In many cases the programmes were overly complex and students were challenged to scale them down to an achievable level of spatial resolution within the limited timeframe.

Programmes were well related to the findings and conclusions from the urban design strategy, systemically related to the proposals of the other members in the group. Of significance to this part of the brief is that students were able to grapple not only with the aspects of the programmes addressing the immediate needs of the Slovo Park residents, but were simultaneously able to relate to global issues of sustainable resource appropriation, economic sustainability and social responsibility. In many of the individual proposals, incremental implementation was proposed as part of an empowering role attributed to the interventions.

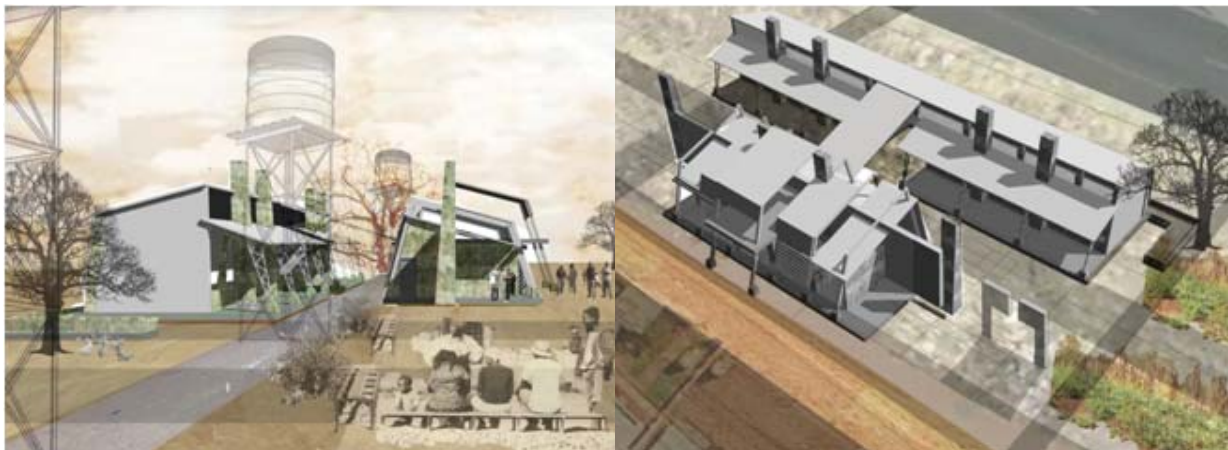


Figure 5.86: Proposal for the incremental construction of a chicken hatchery along the edge of Slovo Park addresses the economic opportunity identified in the settlement as well as considering the environmental impact of the proposed intervention (Taljaard 2012)

Through the direct relationship of the proposed programmes and the urban design framework as manifestation of the participatory process, the issue of emotional ownership was addressed. One example was the proposal for a goods depot inserted in to the fabric of Nancefield in response to a need expressed by the Business Forum for such a facility (Figure 5.87). The intersection between the individual -Business Forum- and collective -Slovo Park- was anticipated in this process, focusing on a programme for a specified client group. The architectural opportunity for development of this space and its interaction with the urban

context could then be clearly identified and expressed in terms of the edge conditions, spatial flow and appropriate scale of the design. Making allowance for an incremental development of such a facility in relation to its satellite distribution points further embedded the physical contribution by the proposed intervention as an expression of a responsive architecture. The fluid transition from urban design considerations, through participatory feedback to architectural translation was thus achieved.

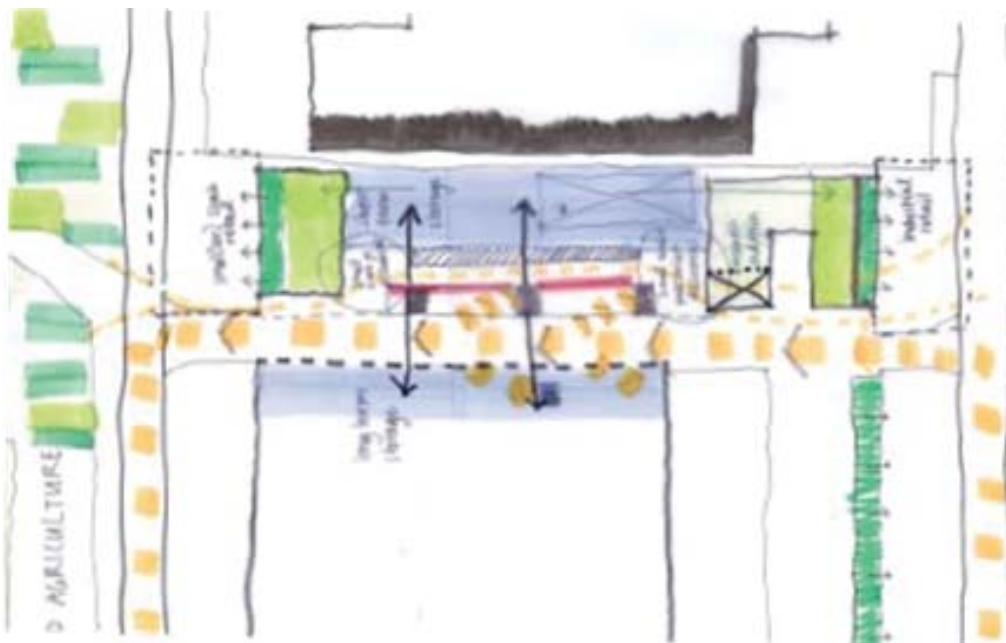


Figure 5.87: Proposed appropriation of existing industrial space to accommodate requirements expressed by Business Forum. This proposal is situated at the edge of Slovo Park, thereby facilitating a transitional space between the settlement and the neighbouring Nancefield industrial area (Taljaard 2012).

The individual proposals could not be separated from their urban intent. Edge conditions were considered, if not always well resolved. Scale and complexity responded to the current condition of the settlement and anticipated future development in terms of density and urban aspiration (Figure 5.88).

There was no evidence of a patronizing scaling down of the design proposals to a preconceived level of *township* architecture, nor could it be said that an object-driven approach to the design was evident. The delicacy observed in terms of scale and texture

spoke of an understanding and a sensitive engagement with the settlement, translating into a respectful architectural response.



Figure 5.88: A complex proposal for incremental infusion of socio-economic activity as spatial resolution to the edge of the settlement reflected an intensely participatory process between the student and members of the community residing in this part of Slovo Park (Sindi 2012).

On the whole, the process and method of engagement delivered a wealth of important architectural informants regarding urban response, programmatic appropriateness and an awareness of scale and texture determining the urban edge condition. In terms of the eventual spatial resolution and articulation, however, the transition remained inconclusive. In most cases the students eventually reverted to a language of architecture acquired from previous experience and external impulse.

No critical evaluation was made by the members of the community, mostly offering praise for the proposals that were presented and discussed. Such positive response by the community

encouraged the students during the course and gave them confidence to argue for their proposals during critique sessions with internal lecturers.

Standard assessment parameters were applied to the evaluation of the students' work, seen in relation to the other sites of intervention offered in the studio. Although there had been varying degrees of participation and engagement in the parallel studios, all the proposals were eventually assessed by the same panel of internal and external professional architects. The depth and value of the analyses and urban sensitivity displayed by the group working in Slovo Park far surpassed that of the other students, although they were not eventually credited for it. The final assessments revolved around the exhibited resolution of the design as architectural product, once again confirming the proclivity for architect-as-provider that remains ensconced in the architectural curriculum.

Table 5.26: Application of CAP methodology: Plan for Implementation in RFP 721 (2012)		
CAP methodology applied?		Reasons?
Identify tasks		
√	<i>Consider primary tasks</i>	Interpretation of primary tasks into architectural proposals
√	<i>Consider constraints</i>	Constraints regarding context, socio-economic conditions and potential execution considered
√	<i>Establish responsibilities: Full, shared, support</i>	Through identification of social network structures, responsible stakeholders are identified
Synthesize proposal		
√	<i>Prepare co-ordinated plan for action</i>	Situating proposed architectural intervention within an urban design framework contributes towards co-ordinated vision
x	<i>Executive summary of workshop</i>	
√	<i>Area profile</i>	Comprehensive documentation serves as area profile
√	<i>Overall planning objectives</i>	Planning objectives visually captured in urban design framework
Project memorandum		
√	<i>Project objectives</i>	Specific project objectives as related to proposed architectural intervention
x	<i>Project implementation</i>	
x	<i>Project budget</i>	
x	<i>Plan</i>	
Augmentation to Plan for Implementation		
x	<i>Community Architecture</i>	

5.6.4. Conclusion

The work undertaken in the 2012 Slovo Park studio proved to be rich and encouraging, with the students responding comprehensively in terms of the process of engagement as well as the sensitive resolution of architectural articulation. The existing relationship between the residents of Slovo Park and the department of Architecture at UP resulted in the community members assuming a mentorship role towards the students, thereby assisting in guiding them through the complexities of the social structures in the settlement.

Building on previous research meant that the short period of time dedicated to this module could be used effectively, assimilating established narratives and developing proposals from there. The organogramme (Horzook 2012) depicting the social organisation of Slovo Park proved to be an important component of the quarter, as it highlighted the interrelationship between the various committees and forums active in the community.

From this deeper understanding of Slovo Park, students were able to identify the mechanisms of livelihood that underpin life in Slovo Park, that could be incrementally enhanced towards a sustainable stabilization of the settlement. In this way, the intersection between the collective and the individual could be addressed programmatically and spatially.

Despite the high level of success achieved during this module in terms of assimilation of CAP principles and translation into architectural proposals, the assessment of the work still indicated a systemic challenge to the curriculum. The value of students volunteering to work in Slovo Park lay in their commitment to the process. The assessment panel, however, compared this work to that undertaken by students in less participative contexts, which resulted in a product-oriented evaluation. It became evident that this approach needed to become assimilated more comprehensively, simultaneously challenging the lecturing body and assessment panel to engage with this methodology.

See also:

Addendum 5.20: Student reports of work undertaken in Slovo Park (2012)

5.7. 2012 Hall Upgrade 2 (Slovo Park, Johannesburg)

5.7.1. Description and background

Following on their involvement with the community of Slovo Park during the second quarter of 2012, a group of the Honours architecture students volunteered to undertake the further upgrade of the community hall during their July recess. This would again be a collaboration between the students and members of the community, under the auspices of the Non-Profit Organisation *1to1 Agency of Engagement: Student League*. This NPO evolved out of the preceding engagements in Slovo Park and aims to *facilitate spatial design strategies through critical engagement with residents in poor or unsafe areas of South Africa* (1to1 2014).

The department of Architecture at the University of Pretoria (UP) resorts under the faculty of Engineering, Built Environment and Information Technology (EBIT). Within this faculty, a community engagement module known as Joint Community-based Project (JCP) was launched in 2005. This module carries eight credits normally situated in the second academic year, requiring 40 hours of work in designated communities. During 2010, there were 1495 students registered for the module, carrying out 432 projects (Jordaan 2011). The aim of the module is to achieve experiential learning through the execution of tasks that meet specific needs in various local communities. Being familiar with this module, the Honours architecture students then proposed to invite students registered for the JCP module to participate in the upgrade of the hall. This call resulted in a group of eight engineering students in their second year undertaking the support of the upgrade (UP 2012).

The motivation for the upgrade for the second upgrade stemmed from the state of disrepair that the hall had fallen into. During the 2011 Workshop Series and the subsequent discussions in 2012, the community leadership ascribed the vandalism and lack of maintenance to the fact that the hall was insecure. A proposition was put forward that the attachment of an office, along with gates that could be locked, would ensure that the ownership could be taken by the Slovo Park Business or Community Development Forum. The responsibility for the hall would then be vested with these networks.

A week-long construction period was planned, that was eventually concluded over a two week period. In this time, the following tasks were completed:

- Built-in seating was incorporated along the walls
- The roof was raised and extended

- Steel windowpanes were welded in between the existing columns to create a secure barrier
- Coloured polycarbonate sheeting was installed in the clerestory of the raised roof
- An office was added to the North of the brick wall, using roof sheeting for walls, much in the same way that the shack structures are built.

The donation of food, generators, welders, fuel and ad-hoc building supplies came from companies in the area, the network of student and lecturer families and friends. Time and fundraising ability was limited and on-site requirements were fairly open-ended. Once again, as in 2010, the authority of the tradesmen who claimed practical experience was off-set against the basic academic grounding of the students, which resulted in an authentic collaboration assuming its own frame of reference. Emotionally rich experiences were intertwined with arduous labour, shortages of supplies and makeshift plans (Addenda 5.21; 5.22; 5.23; 5.24).

5.7.2. Reflection on application of CAP methodology

5.7.2.1. CAP wall chart: *Introduction*

No additional formal introductions were undertaken for the commencement of the upgrade, as the relationship that was established in the preceding months supported the continued engagement with the community. The Honours students took it upon themselves to introduce the younger JCP students to the now familiar residents in the settlement, who had kindly offered to host the students for the week of construction.

5.7.2.2. CAP wall chart: *Statement of Problems and Opportunities (+ Needs Assessment & Network Analysis)*



Figure 5.89: Students and community in discussions to ascertain problems and opportunities regarding the community hall (Bennett 2012).

During the course of the preceding RFP module, problems with the existing hall had been pointed out by members of the community (Figure 5.89;Table 5.27):

The first issue that was raised by the community was related to the current community hall. This was not sufficiently providing for the Youth and Business Forum activities and could not comfortably accommodate the residents and government officials when meetings took place. The second was the need for lockable storage. Finally, the vandalism of Slovo hall by the children confirmed the lack of recreational facilities (Bennett 2014: Slovo Blogspot).

Table 5.27: Application of CAP methodology: <i>Statement of Problems and Opportunities during 2012 hall upgrade</i>		
CAP methodology applied?		Reasons?
Context		
x	<i>Professional speakers</i>	
x	<i>Notes of key issues</i>	
Community issues		
x	<i>Overview by planner</i>	
x	<i>Community representative</i>	
Community observations		
√	<i>Look and listen</i>	Observations by students and community members regarding the current state of the community hall
√	<i>Talk and write</i>	Discussions among the students and community members documented
√	<i>Review problems</i>	Problems identified with hall established
Augmentation to Statement of Problems and Opportunities		
x	<i>Testimonio</i>	
x	<i>Image of Home</i>	
x	<i>Human Scale Development Matrix</i>	
x	<i>Network Analysis</i>	

5.7.2.3. CAP wall chart: *Documentation of Key Information*

In applying the CAP principles to the proposed intervention, key information related to the community hall was documented (Table 5.28). This included photographic and technical documentation of the existing structure (Figure 5.90), as well as reference to the phased Master Plan proposed during the 2010 intervention (Figure 5.91), which formed part of the community's shared vision for the area (Bennett 2010).



Figure 5.90: *Photographic documentation of existing hall (Bennett 2012)*

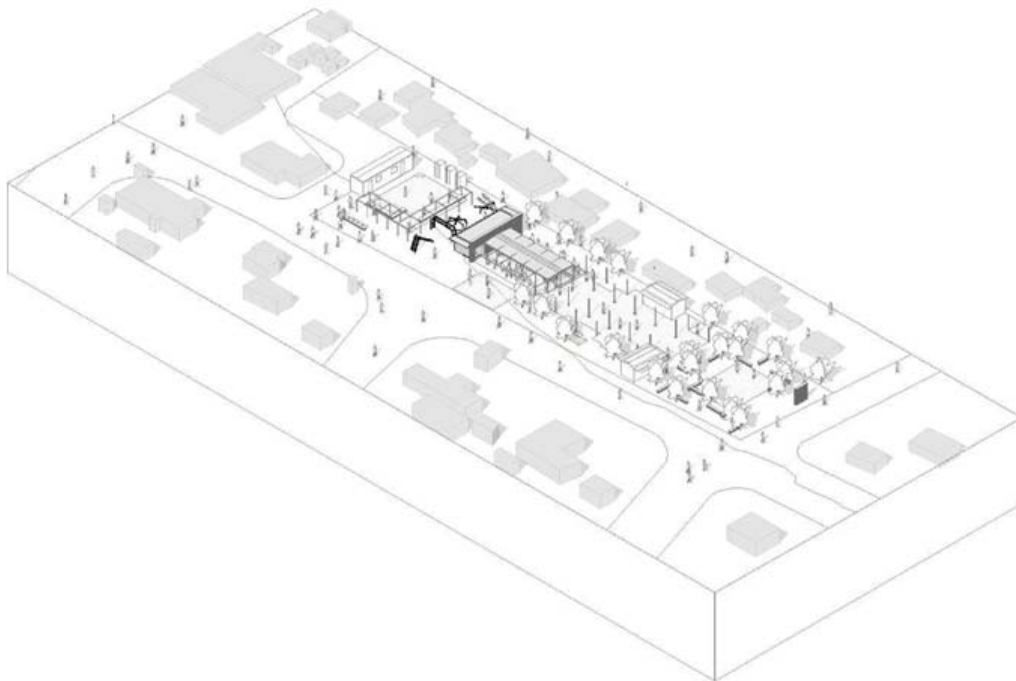


Figure 5.91: Master Plan of phased development of the Slovo Park Community as proposed during 2010 (Bennett et al 2010)

Table 5.28: Application of CAP methodology: Documentation of Key Information during 2012 hall upgrade		
CAP methodology applied?		Reasons?
Base Plan		
√	Site plan	Site plan of hall and surrounds as per documentation developed in 2010
√	Agree on scales of information	Scale appropriate to construction
x	Indicate public uses	
x	Indicate public access	
x	Relative land values and potential	
x	Circulation, access routes, site boundaries	
Spatial Physical Elements		
√	Document existing conditions	Photographic documentation of existing conditions
√	Document proposals from existing Masterplans	Reference to phased development as proposed during 2010 documentation
x	Document infrastructure services	
Non-physical elements		
x	Document existing conditions	
x	Document proposals from existing Masterplans	
x	Indicate political boundaries, community territories	

5.7.2.4. CAP wall chart: Making Community Map (+PGIS)

In view of this engagement being focused on the physical improvement of the community hall, the CAP process of *Making Community Map* is seen here in the communal expression of concern specifically related to the shortcomings of the existing hall. Meetings held on site with the attendance of the students and community members allowed the opportunity to voice concerns of use, disrepair and potential responsibility (Figure 5.92). Documentation of these concerns provided the basis for consideration of the design proposals (Table 5.29).



Figure 5.92: Community meeting held on site to discuss problems experienced with the hall and use patterns of the space (Bennett 2012)

Table 5.29: Application of CAP methodology: Making Community Map during 2012 hall upgrade		
CAP methodology applied?	Reasons?	
Complete Base Plan		
√	Meet with community on location	Community meetings held on site at existing community hall
√	Map community concerns and opportunities	Community concerns regarding vandalism of hall considered
√	Patterns of use	Use of hall by different user groups indicated in discussion with community
Dwelling Typologies		
x	Document use: plot sizes: tenure: building types	
x	Document family story: past and future expectations	
x	Describe physical characteristics	
x	Plot plan: dwelling: uses: dimensions	
x	Photograph or sketch of dwelling	
x	Table of basic data	
Augmentation to Making Community Map		
x	PGIS	

5.7.2.5. CAP wall chart: Set of Actions and Related Tasks (+Collaborative planning)

Based on the concerns expressed by the community, initial design proposals for additions were prepared by the architecture students (Figure 5.93). Existing materials on site were taken into consideration, such as used industrial steel frame windows that had been kept in storage by the resident community.

The previous intervention had been based on the assumption of shared use by the community

as a whole, which had resulted in an open structure. Subsequently, however, the screens had been stripped of their infill, tiles had been broken and the trees had been broken off by children swinging on the young sapling branches. The SPCDF considered these problems as emanating from a lack of security and therefore requested that the proposed design ought to enclose the hall so that it could be secured when not in use. For this reason they wanted to have the steel frame windows introduced as an infill. Additionally, there was a concern that the roof was too low for the large numbers of people that gathered there, so that the intention was to have the roof raised.

The vertical timber poles that had been erected as part of the public gathering space during 2010 was intended to increase the possibility of large communal gatherings. Providing shade over this area was therefore considered as part of the initial design proposal.

Design proposals were presented along with plans for the implementation of the project, in which tasks were allocated to the various participating community members and students (Figure 5.94). In this allocation of tasks, consideration was given to the availability of materials, tools and resources (Table 5.30).

SLOVO HALL UPGRADE



Figure 5.93a: Perspectives of proposed alteration to the community hall (1to1 2014)

All labour will be done by the students, and the community members

- Increasing the existing head height of the roof
- Enclosing the all the façades for sound, wind, security and control
- Lengthening the extent of the roof to increase covered floor space
- Implementing a stage and plastering its adjacent wall in order to project presentations and videos
- Introducing a blackboard in the absence of electricity



PROPOSED ADDITIONS

www.1to1.org.za



Figure 5.93b: Perspectives of proposed alteration to the community hall (1to1 2014)

SLOVO HALL EXTENSION: PLAN OF ACTION		REQUIREMENTS:	BRIEF:
PERSPECTIVE	PLAN	C – supplied by community	requests by community members:
1		SLOVO HALL AS IS	- extend internal floor space by extending the roof - storage - roof height increase - control and security with walls on all four sides - extension of space
2		- 770 bricks - 2x50kg cement bags - 80 raw plugs - 13.3m DPC - 5 window frames (C) - polycarbonate sheeting	MATERIALS: TOOLS:
3		- 770 bricks - 2x50kg cement bags - 80 raw plugs - 13.3m DPC - 30 sqm roof sheeting - 5 window frames (C) - polycarbonate sheeting	MATERIALS: TOOLS:
4		- 160 bricks - 11 sqm polycarbonate - 4 locks - 4 base plates - 1 window frame (C) - 2 west wall steel frames (C)	MATERIALS: TOOLS:
5		- 12 eye bolts - 90 sqm shade cloth (C)	MATERIALS: TOOLS:
6		- 880 bricks - 1 lock - 11 sqm paint - 11 sqm plaster - 1 door	MATERIALS: TOOLS:

Figure 5.94: Project planning of proposed alteration to the community hall (1to1 2014)

Table 5.30: Application of CAP methodology: Set of Actions and related tasks during 2012 hall upgrade		
CAP methodology applied?		Reasons?
Identify and prioritize actions		
√	<i>Decide actions & related spatial & non-spatial interventions</i>	Interventions proposed embracing spatial and non-spatial attributes
√	<i>Prioritize interventions: need, feasibility and political viability</i>	Interventions prioritized according to needs assessment established through participatory processes
√	<i>Consider consequence & grouping in terms of input and goods</i>	Multiple layers of contribution by various stakeholders anticipated in proposed interventions
Augmentation to Set of Actions and Related Tasks		
√	<i>Collaborative Design</i>	Students and community develop design proposals collaboratively

5.7.2.6. CAP wall chart: Plan for Implementation (+Community Architecture)

Construction plans and scale models were produced to facilitate the implementation of the upgrade (Figure 5.95; 5.96; Table 5.31). These were used as points of departure, although changes were made on site to accommodate the delivery of donated construction materials. Little regard was given to technical advice from professional consultants and lecturers who visited the site during construction and suggested that cross-bracing would be needed for structural integrity.

Partial collapse of the roof was ascribed to the cutting of steel columns without adequate support or bracing. Despite this set back, additional angle iron was welded in place and the roof structure raised to the desired level, still without the type of structural bracing that would be required under regulated circumstances. Through this process of collaboration, the upgrade was successfully completed within the short time frame available to the students (Figure 5.97; 5.98; 5.99; 5.100; 5.101).

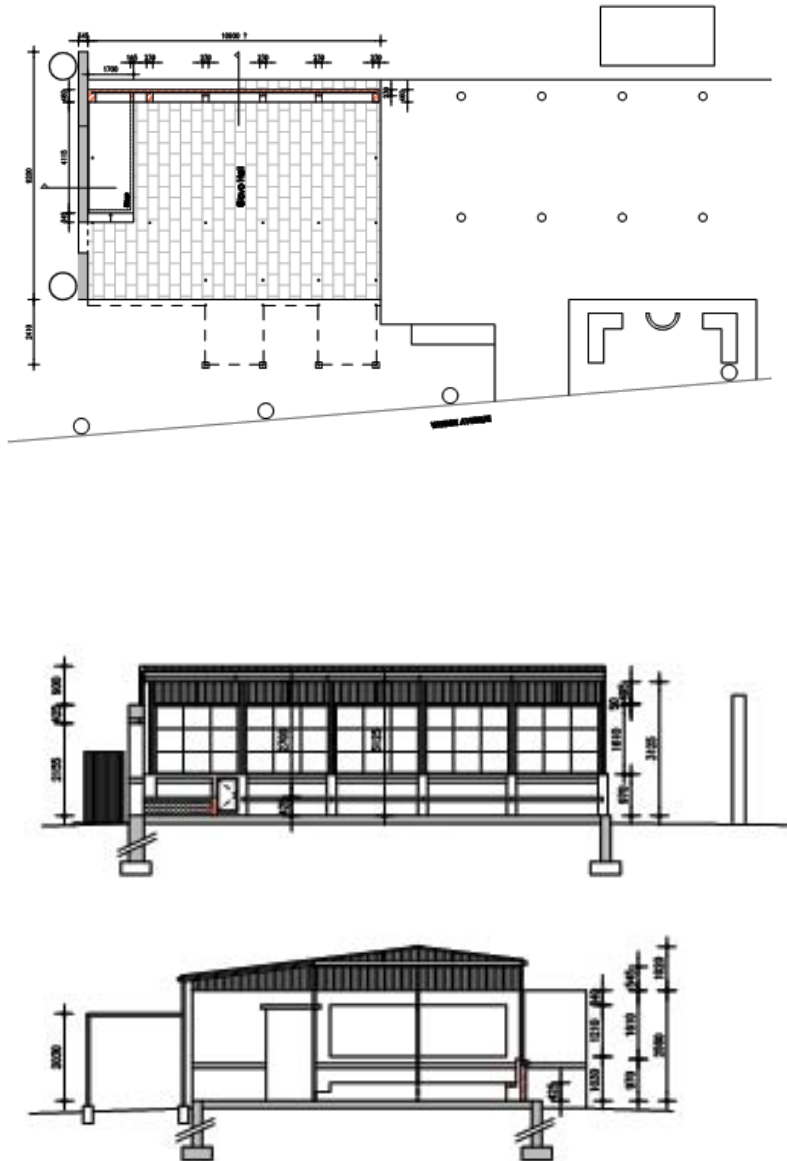


Figure 5.95: Construction plans drawn to scale prior to the implementation of the upgrade (Taljaard 2012)



Figure 5.96: Scale models used during construction (1to1 2014)



Figure 5.97: Introduction of JCP students to the community members of Slovo Park (Taljaard 2012)



Figure 5.98: Existing steel windows held in storage by the SPCDF that were used to enclose the hall (Horzook 2012)



Figure 5.99: Construction activity on the site (1to1 2014)



Figure 5.100: Construction in progress (Bennett 2012)



Figure 5.101: Conclusion of the construction process: team members including Honours architecture students, SPCDF members and JCP students under the auspices of 1to1 Agency of Engagement (Bennett 2012)

Table 5.31: Application of CAP methodology: Plan for Implementation during 2012 hall upgrade		
CAP methodology applied?		Reasons?
Identify tasks		
√	<i>Consider primary tasks</i>	Primary tasks related to construction of the upgrade
√	<i>Consider constraints</i>	Constraints related to budget, time frame, available skills and capacity
√	<i>Establish responsibilities: Full, shared, support</i>	Responsibility shared between student groups and community members
Synthesize proposal		
√	<i>Prepare co-ordinated plan for action</i>	Plan for action based in project-related outcome
x	<i>Executive summary of workshop</i>	
x	<i>Area profile</i>	
√	<i>Overall planning objectives</i>	Overall planning objectives fall within settlement drive toward upgrade
Project memorandum		
√	<i>Project objectives</i>	Specific project objectives as related to architectural intervention
√	<i>Project implementation</i>	Implementation undertaken by collaboration between student groups and community
√	<i>Project budget</i>	Project budget developed according to available resources
√	<i>Plan</i>	Plan developed for construction of the upgrade, adapted during building process
Augmentation to Plan for Implementation		
√	<i>Community Architecture</i>	Full scope of architectural engagement in participation with resident community

5.7.3. Conclusion

The collaboration between students and community members was, as in 2010, mostly focused around the execution of the construction tasks. Despite the successful engagements undertaken during the RFP module, the design decisions affecting the upgrade of the hall were not deeply considered. Many decisions were made on site during construction, without much regard for potential consequence.

Although this exercise could be seen as an example of community architecture, in which many aspects of CAP could be illustrated, the rush to construction effectively underplayed the value that could be obtained by more thoughtful collaboration in the design of the intervention. This indicated the importance of establishing the CAP platform more securely in the curriculum, before exposing students and community members to the complexities of the construction process.

The issue of ownership was clearly highlighted during this process. Whereas the initial upgrade of the hall in 2010 was intended to serve the community at large, such a generic understanding of the social structure was clearly incorrect, as no-one in the settlement took further responsibility for the hall. Once the SPCDF suggested that they would like to assume

this role, the requirement for enclosing the facility became evident. This changed the spatial relationship between the hall and its urban context dramatically, defining defensible thresholds and programmed space. From this revelation, it became clear that the student brief for the following year would have to take account of the specific ownership models where the interface between striated interest groups within the collective community could be accommodated.

5.8. 2013 RFP 721 (Slovo Park, Johannesburg and Alaska, Pretoria)

The final iteration of this study took place both in Slovo Park, Johannesburg as well as in Alaska, Pretoria. Both sites were known, although there was a greater depth of experience in Slovo Park. The parameters for engagement were the same for both sites and studio guidance was balanced between the two locations, so that replication of the proposed method could be applied simultaneously.

5.8.1. Research and design studio

5.8.1.1. Number of students enrolled, site of engagement and history of relationship with community

The entire Honours class (inclusive of students enrolled for Landscape and Interior Architecture) were obliged to participate in this module. Students could choose between working in Alaska, Pretoria or Slovo Park, Johannesburg. Although it was not considered mandatory, students were encouraged to stay in the settlements for a few days at the beginning of the research period.

Some of the reasons offered for choosing Alaska were:

- Convenience – located closer to the campus
- Desire to do pioneering work, due to the *legacy* of previous work undertaken in Slovo Park
- No desire to stay with the residents of the informal settlement, mostly due to security concerns

Reasons offered to work in Slovo Park:

- Inspired by previous students' experiences
- Desire to work with the young professionals who had previously been involved with Slovo Park
- Prior and alternative connection to the community of Slovo Park through affiliation with the Community Resource Centre (CORC)

Eventually, twelve architecture students chose to work in Slovo Park, with twenty-two students choosing to work in Alaska. The urban design frameworks were developed in interdisciplinary

groups, inclusive of landscape architecture and interior architecture, after which the individual design proposals were developed with the understanding that these design proposals had to consider the rest of the group, especially as they related between disciplines. There were four groups active in Slovo Park and ten groups in Alaska.

5.8.1.2. Student brief and assignment

The Community Action Plan (CAP) developed by Goethert & Hamdi (1997) was introduced as the primary platform for engagement between the students and the informal settlement community and included as an Addendum to the brief. In addition to this, attention was drawn to the socially organising networks active within the settlement as the specific point of contact for the students to gain a closer understanding of a defined sample group within the community. Sustainable livelihood strategies within the settlement and the emerging social identity were introduced as important facets of the investigation and ensuing proposals. Importantly, the brief called for the identification of spatially manifested points of energy that represent the social organisation of the community. The reinforcement of these nodes through proposals for architectural intervention would then be proposed (Addendum 5.25).

Elaborating on CAP, the brief was explicit in encouraging the students to undertake transect walks, unstructured interviews and making use of extensive photographic documentation. Specific attention was paid to the discovery of networks active within the settlement. Such networks can be revealed through the preceding processes of investigation and are often manifested in crèches, taverns or churches established within the settlement. From the experiences in Slovo Park, it had become evident that the driving force of social activism and collective energy resides within these networked collaborations. It was therefore proposed that design interventions should be focused on these nodal points of energy convergence and to establish specific contact with the people represented in these spaces.

Community feedback and design iteration based in this feedback was described in the brief to offset the experience in 2011 where students reverted to the insular studio culture after minimal interaction with the community. The expected outcomes specific to the individual interventions remained the same as the previous year's brief. The more specific focus of the settlement investigation was aimed at reducing the time and research committed to that

part of the module, while at the same time achieving a rapid and accurate point of entry to the relevant dynamics within the settlement that could offer a valid proposal for architectural intervention.

The focus of the module gradually shifted from a developmental intention of *building community* to an understanding that such community exists and is in fact very resilient, independent of an externally motivated facilitation. It therefore became the consideration of the course to establish how the skills specific to the profession of architecture could be adjusted to address the needs of communities in such a way that the social capital already prevalent could be reinforced.

For this reason, the analysis at this level of academic competency did not need to be exhaustive. Rather, from the previous experiences, it was clear that it had to be directed at a representation of the community's organisation and had to be inclusive of an understanding of needs and requirements beyond the most obvious lack of engineering services in order to establish a meaningful basis for architectural intervention.

CAP was thus proposed as a platform of engagement with the community in order to arrive at a rapid appraisal of the urban circumstances that would contribute to the proposal of an urban design framework. From this, an investigation into the social networks was proposed to assist in the definition of a brief and site of intervention that would be of value to a particular interest group. This would increase the possibility of discovering issues of concern related to the spatial manifestation, spatial patterns, scale and complexity that related to such a group. Specifically focusing on such collective groupings within the settlement, rather than on individuals, would make it possible for the architecture students to mediate between individual and collective, thereby contributing to the emergent identity of the neighbourhood.

5.8.1.3. Schedules: Studio, assessment and community interaction

The course schedule again spanned a period of six weeks, making explicit allowance for a three-day community workshop on site at the beginning of the module. A desk crit in the studio context by the representatives of the community networks the students had been engaging with was scheduled for the middle of the programme, with one more opportunity

for a pin-up on site before the final crit. A hand-over of the work produced by the students was scheduled for the end of the quarter. The intention with this arrangement was to encourage conditions conducive to collaboration during the design process. One formal interim crit was scheduled in the quarter (Addendum 5.26).

Assessments and crit reports

Assessment included a consideration of the participatory processes underpinning the development of the urban design frameworks (20% of the final mark) as well as the individual design proposals (80% of the final mark). Marks awarded for the urban design frameworks ranged from 43% to 73%. Socially organizing networks were identified and documented, influencing an approach of incremental improvement to nodal growth points.

Individual design proposals were well aligned with the intentions of the urban design frameworks, successfully elaborating on the incremental approach to consolidation and spatial manifestation. Attention to threshold spaces and sensitive spatial resolution could be seen in a significant proportion of the work produced. There was generally a satisfactory synthesis between the participatory processes and the resultant products that were well received by the members of the community who had participated during the quarter (Addendum 5.27; 5.28).

Distinctions for the module were awarded to four architecture students and two landscape architecture students (Addendum 5.29).

5.8.2. Theoretical support

5.8.2.1. Student brief and assignment

The theory course supporting the module during 2013 differed dramatically from the previous year, although much of the recommended reading list remained. The structure of the theory course assumed a seminar-style format, in which students had to prepare presentations of reading material as well as international precedent studies specifically pertaining to architectural intervention in informal settlements.

Final assessment of the theory module required an essay in which students were expected to reflect on their design processes through the lens of the literature discussed in the theory class (Addendum 5.30).

5.8.2.2. Lecture themes

The syllabus themes became more focused on establishing a vocabulary of international contributions from within the architectural profession to the discourse on informal settlement upgrade, investigated in a parallel assimilation of CAP through Hamdi's (2010) *Placemaker's Guide to Building Community*. Group presentations of the work ensured independent research that contributed to the design output in the studio (Addendum 5.31):

- Urban Analysis: An Approach
- Urban Regeneration
- Brazil: Favela Bairro
- Venezuela and Chile: Informal Settlement interventions
- India and Indonesia: Informal Settlement upgrade approaches
- Community Architects: Cuba and Asian Coalition for Housing Rights

5.8.2.3. Reading list

The reading list was adapted to support the more focused lecture themes, with the establishment of Hamdi's (2010) *Placemaker's Guide to Building Community* as prescribed reading material. The CAP wall chart was made available as resource in the studio (Addendum 5.32).

5.8.3. Reflection on application of CAP methodology

5.8.3.1. CAP wall chart: Introduction

The established relationship with the Slovo Park Community Development Forum (SPCDF) assisted an easy point of entry into the Slovo Park settlement. Due to the specific requirements of the brief, it was possible for students to engage with this segment of the community (Figure 5.102). There was an inherent desire to add to the knowledge base, however, resulting in students specifically seeking out some of the other social constructs such as the Youth Forum, the Policing Forum and an unaffiliated group of craftsmen and recyclers who were operating independently of the established Slovo Park structures. Students were encouraged to spend a few days and nights in the settlement, staying with community members who were willing to host them.

In Alaska, students did not rely on the contact point of *Viva Village* that had been established

through the UP Community Engagement Department. Rather, independent transect walks through the settlement saw the student groups engaging in an ad-hoc manner with residents in the community (Figure 5.103). Through their desire to identify specific networks, however, it was possible to make sense of the social ordering systems in a short space of time, with community leaders and territorial boundaries pointed out during the informally guided tours of the settlement (Table 5.32).



Figure 5.102: Introduction to the Youth Forum in Slovo Park (Duvel 2013)



Figure 5.103: Informal group discussions in Alaska between students and community members (Baggaley et al 2013)

Table 5.32: Application of CAP methodology: Introduction in RFP 721 (2013)		
CAP methodology applied?		Reasons?
Participants		
√	Community members	Slovo Park: Introduction to SFCDF, Youth Forum, Police Forum, independent pastor and recycling network Alaska: Ad-hoc introduction to section leaders as pointed out by community members while walking through the settlement
x	Gvt representatives	
x	NGO's	
√	Workshop moderator	Role assumed by students and community members
Arrangements		
√	Objectives	Objectives of module known to Slovo Park residents, clarified to Alaska residents through multiple engagements
√	Commitment	Span of commitment limited to the time allocated to the module
√	Goals	Goals of proposed interventions limited to academic output, with collation of final documentation handed to community members
√	Location	Students introduced to community members on site in Slovo Park and in Alaska
Materials		
x	Presentation	
x	Tables and chairs	
√	Base plans	Base plans acquired from previous years' student archives, disseminated electronically, further contributions by UP Geography department
x	Folders	
√	Cameras	Visual documentation encouraged: still photography, video and hand sketches
Event		
x	Refreshments	
x	Reception	
x	Invitations	
x	Certificates	

5.8.3.2. CAP wall chart: Statement of Problems & Opportunities (+ Needs Assessment & Network Analysis)

Spending a few days in the settlement impacted on the students' ability to assimilate some of the tacit aspects of life in the settlement, proving to be valuable in terms of their understanding. Those that made use of the opportunity were in fact able to recognize more of the nuances between people and different groupings in the settlement (Figure 5.104; 5.105). Staying over also increased their eagerness to discuss proposals with the people they interacted with and students were able to enter into a collaborative mode of design through to the individual design proposals. The identification of specific people or groups greatly enhanced the willingness and ability to develop a brief as well as an iterative design process with these groups. Interaction with the people of Slovo Park continued intermittently and without any prompting from the lecturers throughout the module.

A small number of students chose to stay at Viva Village in Alaska during the first phase of the mapping. Due to the proximity of Alaska to the campus, however, regular visits to

the settlement occurred throughout the quarter. Despite the lack of direct contact with the community of Alaska, students were able to gather and collate remarkably detailed information in a very short space of time. The transect walks and unstructured conversations revealed a socio-geographic organisation wherein Alaska is divided into sectors headed by section leaders, all making up the community leadership of the settlement (Figure 5.106; 5.107; 5.108). This organisation is clearly independent of the institutional representation by Ward Councillors at Municipal level who were unwilling to meet them on site. According to accounts by residents, these councillors are not true representatives and therefore not aware of the structures within the settlement. The space of political resistance was thus hinted at, although it was not further investigated during the module.

Through these interactions, it was possible to apply the CAP statement of problems and opportunities in both settlements (Figure 5.109; Table 5.33).

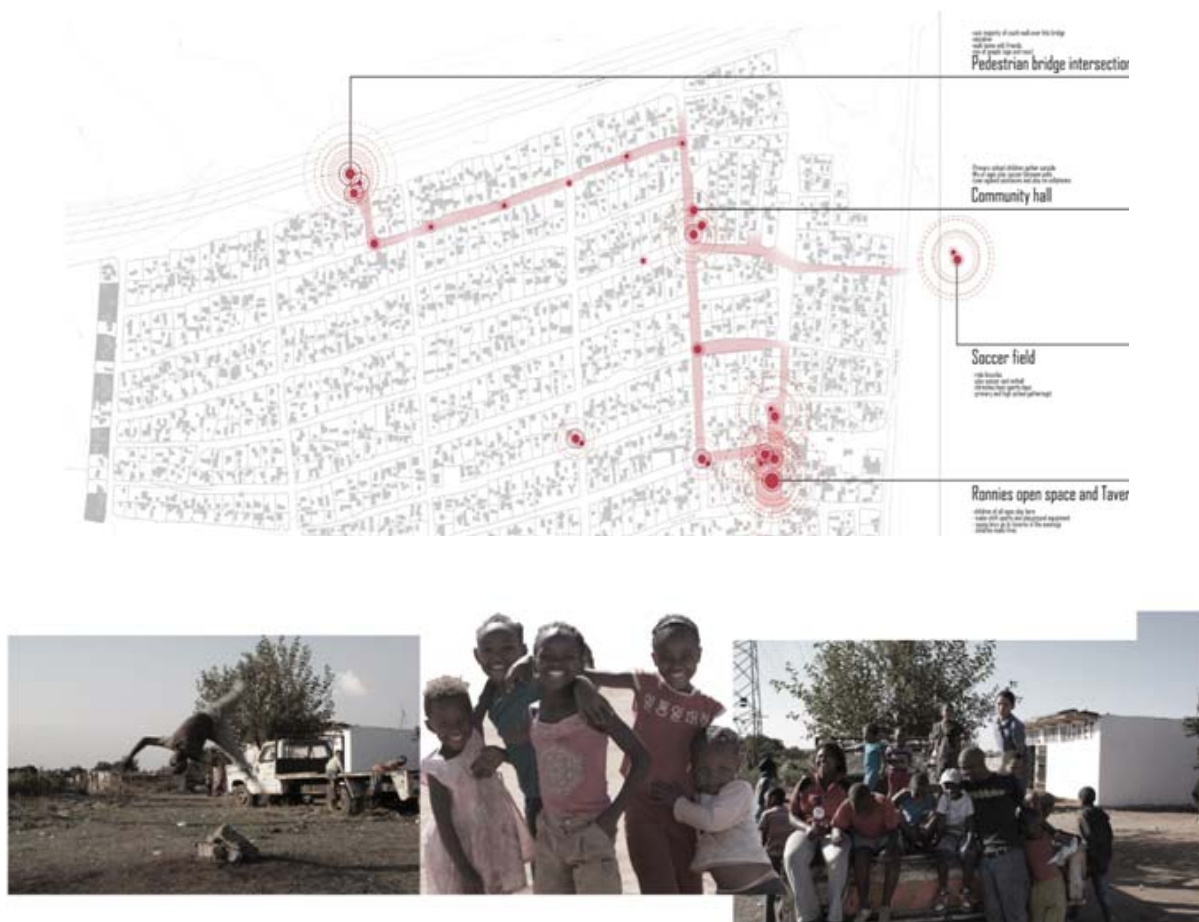


Figure 5.104: Slovo Park: Children activity route and play area identified through engagement with the Youth Forum (Duvel 2013)

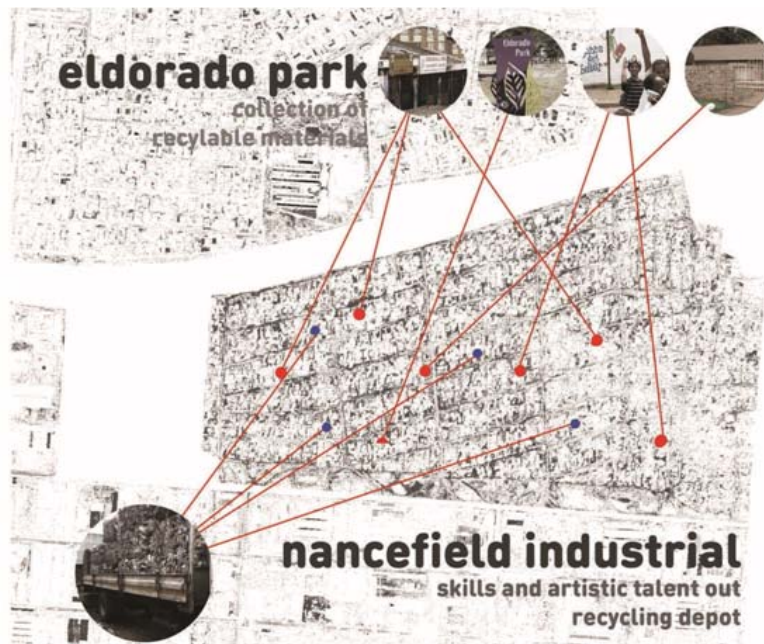


Figure 5.105: Slovo Park: Location of artisans associated with recycling network (Adam 2013)

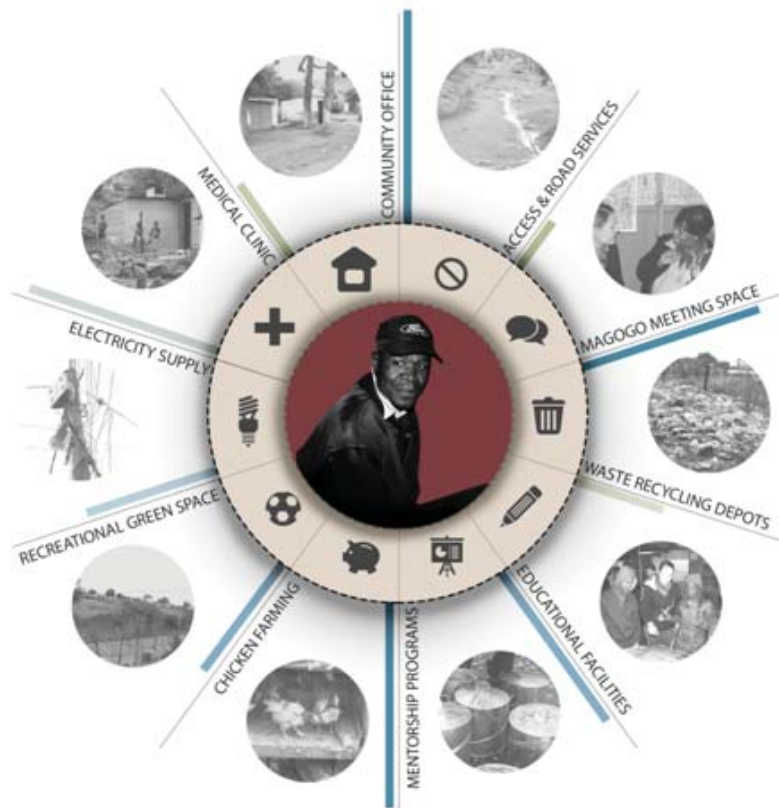


Figure 5.106: Alaska: Identification of community leader as representative of community's expression of needs within the settlement (Coetzee et al 2013)



Figure 5.107: Alaska: Mapping of spatial and non-spatial manifestations of networks active in the settlement (Coetzee et al 2013)

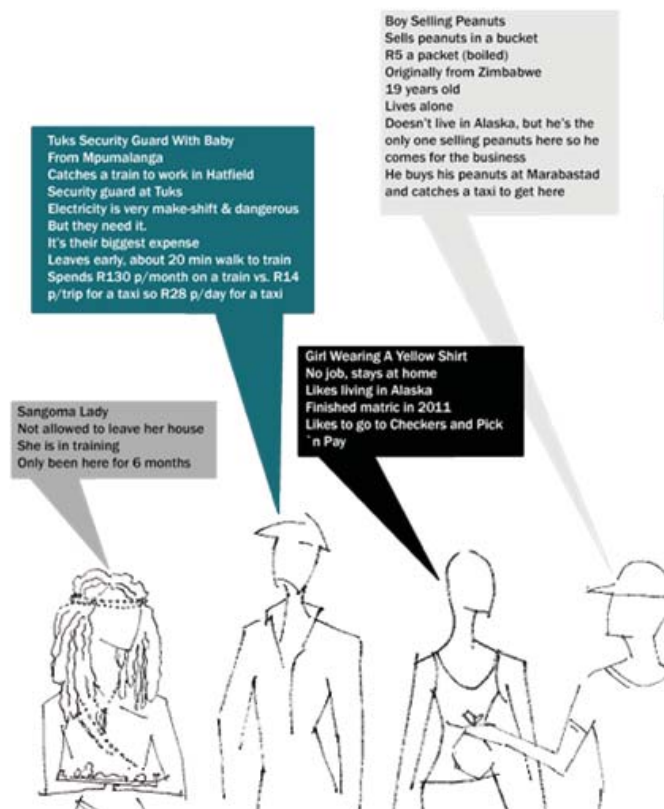


Figure 5.108: Alaska: Ad-hoc conversations with residents in the settlement shed light on some of the issues of concern (Baggaley 2013)



Figure 5.109: Alaska: Urban Design Framework proposals focused on urban connectivity (Laurent 2013)

Table 5.33: Application of CAP methodology: Statement of Problems and Opportunities in RFP 721 (2013)		
CAP methodology applied?		Reasons?
Context		
x	Professional speakers	
x	Notes of key issues	
Community issues		
x	Overview by planner	
√	Community representative	Problems and opportunities specific to the identified networks pointed out during engagement with the community residents
Community observations		
√	Look and listen	Visual observations, transect walks and ad-hoc conversations shed light on much of the organizational structures in the settlements
√	Talk and write	Documentation by student groups
√	Review problems	Problems visually documented as part of analysis process
Augmentation to Statement of Problems and Opportunities		
√	Testimonio	Slovo Park: Waterborne documentary and SERI documents made available to student body for critical reflection
x	Image of Home	
x	Human Scale Development Matrix	
√	Network Analysis	Focus on specific networks of interest and association as points of contact

5.8.3.3. CAP wall chart: *Documentation of Key Information*

From the previous experience it was important to document and archive preceding information in accessible formats that could facilitate further embellishment and re-work. As a method of offering access to big visual files, the application *Dropbox™* proved to be a very useful tool. This, along with information shared on social media platforms, became a quick and easy way to share information and avoid repetition.

Due to the emphasis of the investigation shifting to the specific networks of interest and association, the scale of information was documented at a more intimate level, focusing on neighbourhood blocks and intersections where activities related to the networks converged (Figure 5.110; 5.111). The thresholds between public and private use and access could be documented more accurately at this intimate scale, thereby facilitating an engagement with stakeholders at these nodal points of convergence (Figure 5.112; 5.113). Existing physical conditions and service points pertaining to the identified node could be documented, as well as the tacit understanding of territorial boundaries of influence (Table 5.34).



Figure 5.110: Slovo Park: Identification of nodal points of convergence pertaining to youth activities (Duvel 2013)

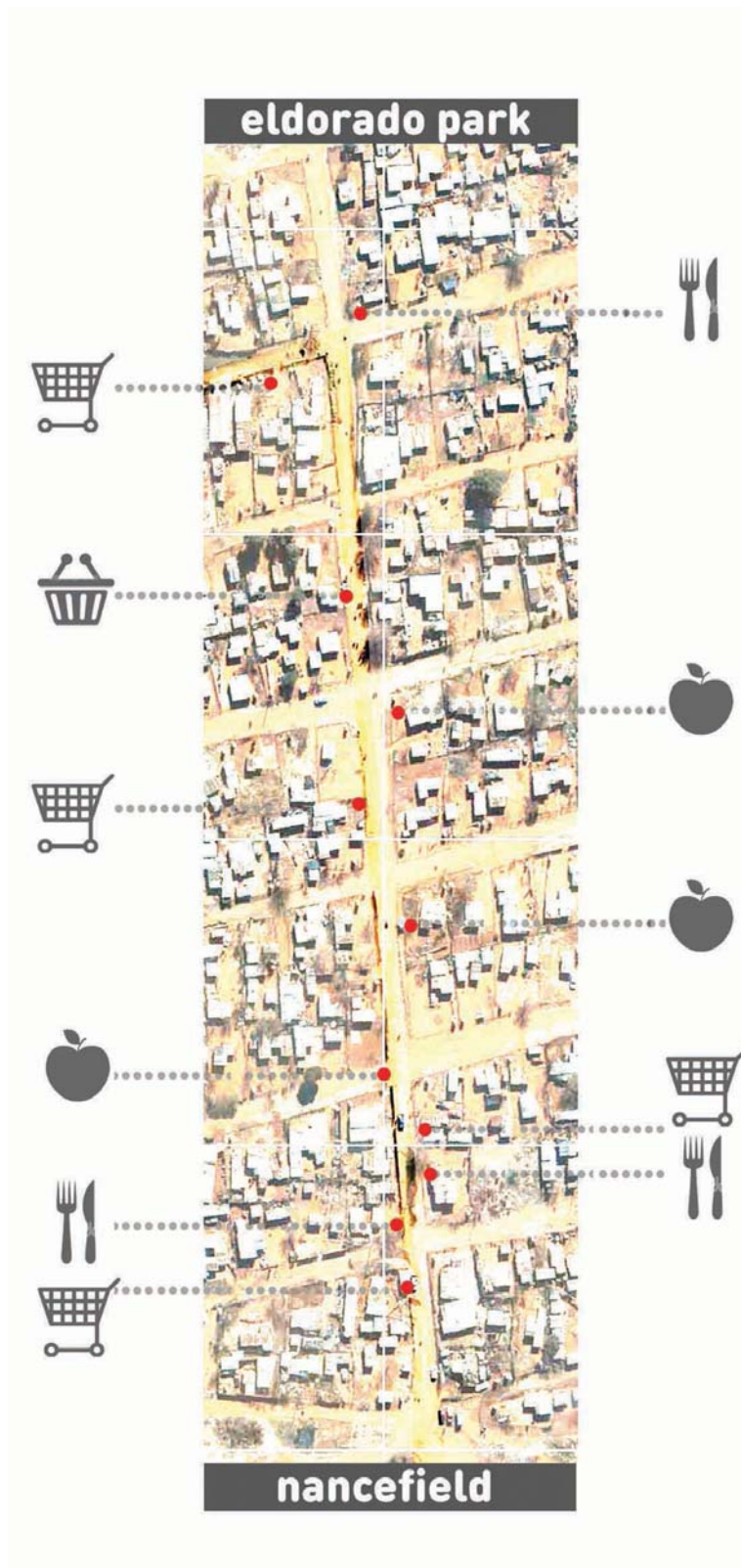


Figure 5.111: Slovo Park: Emphasis on existing retail route related to the recycling network that was identified (Adam 2013)



Figure 5.112: Alaska: Detail analysis of activities at neighbourhood block level (Mattheus 2013)

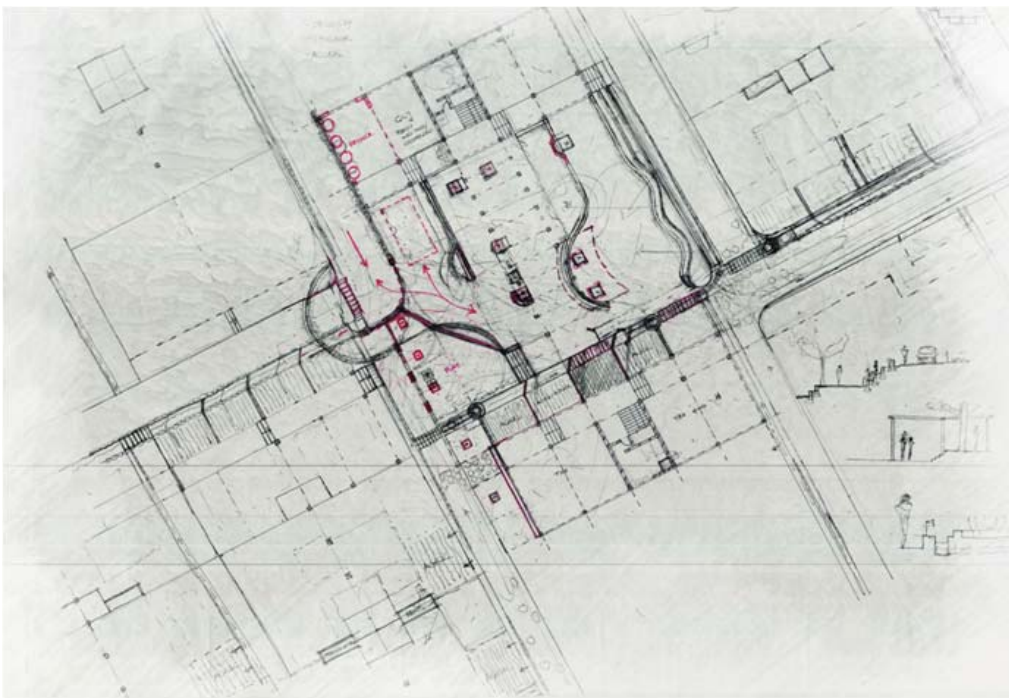


Figure 5.113: Alaska: Analysis of central point of convergence where community gatherings take place, retail and social activity are situated (Wilken 2013)

Table 5.34: Application of CAP methodology: Documentation of Key Information in RFP 721 (2013)

CAP methodology applied?		Reasons?
Base Plan		
√	<i>Site plan</i>	Site plans at block and neighbourhood level particular to the network group that has been identified
√	<i>Agree on scales of information</i>	More intimate scale of documentation allows for understanding of multiple use and complex thresholds
√	<i>Indicate public uses</i>	Public uses impacting on activity nodes documented
√	<i>Indicate public access</i>	Threshold between public and private investigated
x	<i>Relative land values and potential</i>	
√	<i>Circulation, access routes, site boundaries</i>	Impact of circulation and access to nodal points considered, as well as shifting site boundaries and implied territories
Spatial Physical Elements		
√	<i>Document existing conditions</i>	Photographic and diagrammatic documentation of existing spatial conditions
x	<i>Document proposals from existing Masterplans</i>	
√	<i>Document infrastructure services</i>	Infrastructure specific to neighbourhood block and impact at settlement level considered
Non-physical elements		
√	<i>Document existing conditions</i>	Documentation of activities, routes and convergence of interest groups documented
x	<i>Document proposals from existing Masterplans</i>	
√	<i>Indicate political boundaries, community territories</i>	Territorial influence and affected energy documented

5.8.3.4. CAP wall chart: Making Community Map (+PGIS)

Collaboration with the University of Pretoria Geography department offered the students access to electronic aerial photography, but also to Geographic Information System (GIS) documents that could be used as base maps for further layering. Students of architecture were introduced to GIS as part of their undergraduate studies and were therefore able to make use of this software. The possibility of overlaying information by means of mobile handsets increased the richness and speed of data capture, contributing greatly to subsequent synthesis of information during the urban design framework stage.

Various CAD software packages such as *AutoCAD™* and *REVIT™*, along with *Sketchup™*, *Photoshop™* and *Corel Draw™* are further platforms that are either taught at undergraduate level or acquired independently through work experience.

Collaboration between students ensured information sharing that contributed a wealth of additional knowledge about both settlements.

Having identified the specific networks of association or interest, concerns and opportunities specific to these groups could be indicated on the existing base plans that were now focused more closely on their nodal area of influence. Use patterns could therefore be established and

analysed in collaboration with community members (Figure 5.114; 5.115; 5.116; 5.117; 5.118; 5.119; Table 5.35).



Figure 5.114: Slovo Park: Detailed analysis of urban conditions relevant to the intersection where activities related to the Youth network were observed and then corroborated through interaction with the community members on location (Becker 2013)

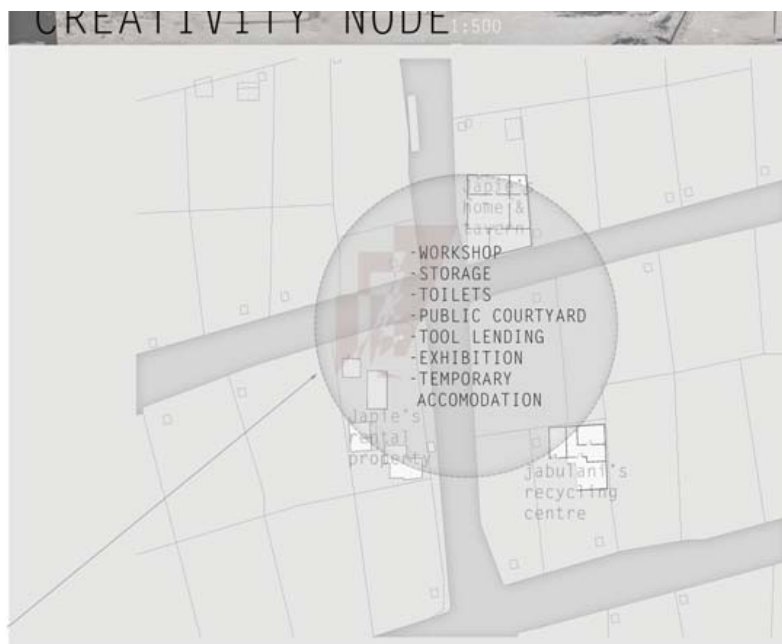


Figure 5.115: Slovo Park: Detailed mapping of existing nodal activity at street intersection, forming part of the identified artisan network (Leeferink 2013)



Figure 5.116: Detailed documentation of dwelling typology at spatial convergence of activity node (Dawjee 2013)

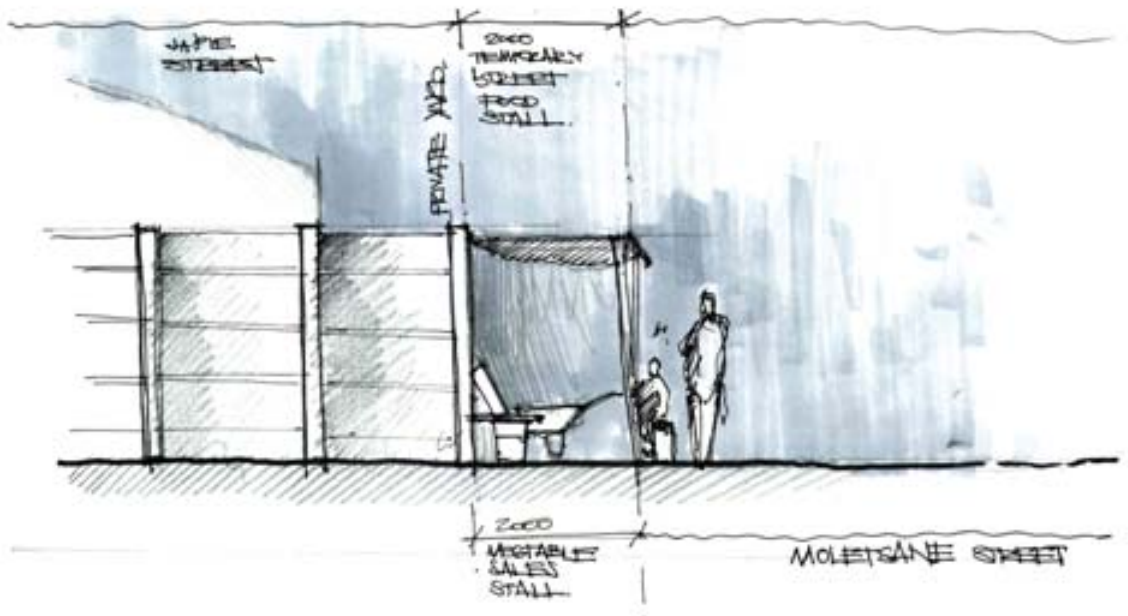


Figure 5.117: Spatial section of existing threshold condition at the activity node (Dawjee 2013)



Figure 5.118: Alaska: Detailed rendition of space allocation at household level (Kuun 2013)

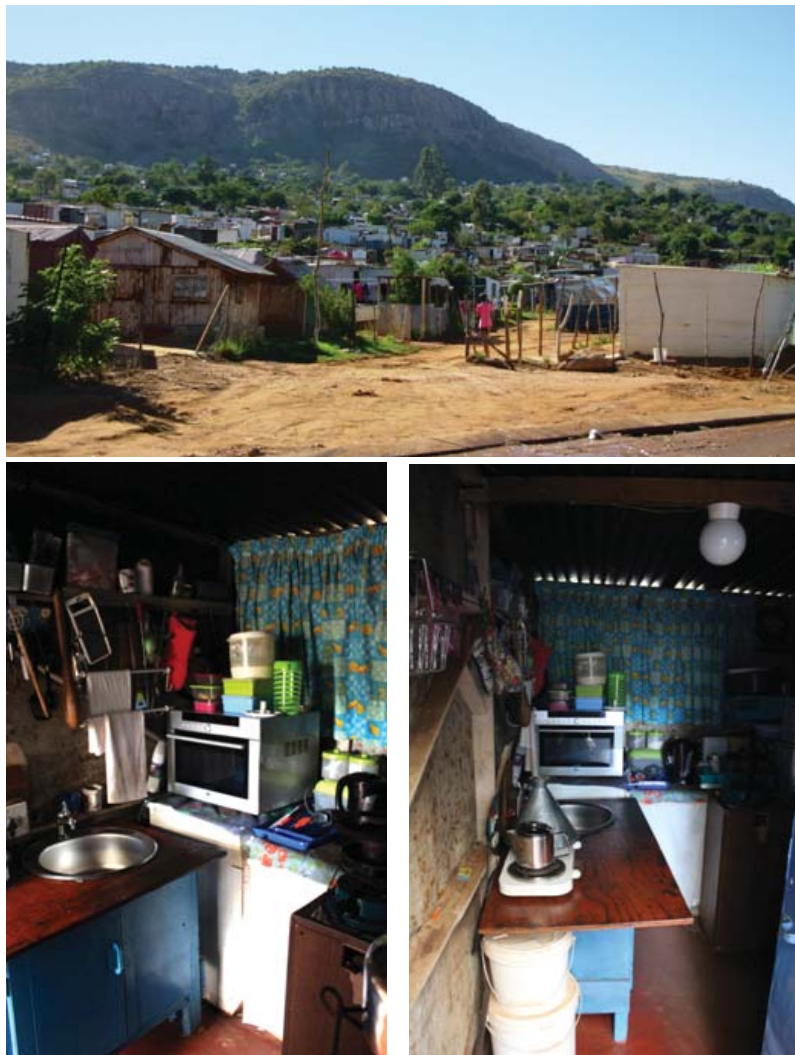


Figure 5.119: Alaska: Photographic documentation of dwelling conditions at household level (Kuun 2013)

Table 5.35: Application of CAP methodology: Making Community Mapin RFP 721 (2013)		
CAP methodology applied?		Reasons?
Complete Base Plan		
√	<i>Meet with community on location</i>	Engagement with specific network groups ensure regular meetings and documentation of information on base plans
√	<i>Map community concerns and opportunities</i>	Concerns and opportunities specific to location documented
√	<i>Patterns of use</i>	Use patterns documented at settlement scale as well as nodal/block scale
Dwelling Typologies		
√	<i>Document use; plot sizes; tenure; building types</i>	Documentation includes plans, photographs, spatial sections
√	<i>Document family story, past and future expectations</i>	Narrative in relationship to network, significance as activity node and aspirations documented
√	<i>Describe physical characteristics</i>	Materiality, spatial impact and density documented photographically and in sketches
√	<i>Plot plan: dwelling, uses, dimensions</i>	Architectural documentation of existing conditions
√	<i>Photograph or sketch of dwelling</i>	Dwellings and surrounding area documented visually
x	<i>Table of basic data</i>	
Augmentation to Making Community Map		
√	<i>PGIS</i>	Access to GIS documents from UP Department of Geography

5.8.3.5. CAP wall chart: Set of Actions & Related Tasks (+ Collaborative planning)

Due to the explicit requirement in the brief that specific networks and nodes of activity had to be identified and reinforced, the majority of the student groups were able to produce urban design frameworks that were concise, focused and appropriate in terms of their proposals for sustainable livelihoods and the reinforcement of social capital (Figure 5.120; 5.121; 5.122; 5.123). Urban connectivity was not as strongly emphasized as in the previous iterations of the course, focusing rather on an increased urban complexity and stabilization within the settlement.

Time allocated to the urban design frameworks was strictly limited and contextualized as a platform of understanding to support an architectural proposal. Insisting on this priority curtailed the investigative phase intentionally to facilitate a deeper engagement with the architectural concerns that had been difficult in the previous iterations.

The value of the urban framework and the use of CAP lay mainly in providing the students with a platform of engagement with the unfamiliar context and the complex human interaction that had to underpin their brief glimpse of the informal settlement. Working in groups contributed to their confidence in addressing this challenge and assisted in developing conceptual frameworks that responded to the circumstances (Table 5.36).

As part of the course schedule, a day was arranged where students were encouraged to invite the people they had interacted with during their engagement with the community to attend a studio critique of the students' design proposals. This allowed a space for deliberation in which the *studio bubble* could be breached, challenging the insular withdrawal during the design process. The session was well attended, with intense discussions surrounding proposals and counter-suggestions. Through these consistently applied contact sessions, it was possible to see greater confidence in the students' embrace of a collaborative design process.

Through these consistently applied contact sessions, it was possible to see greater confidence in the students' embrace of a collaborative design process (Figure 5.124; 5.125).

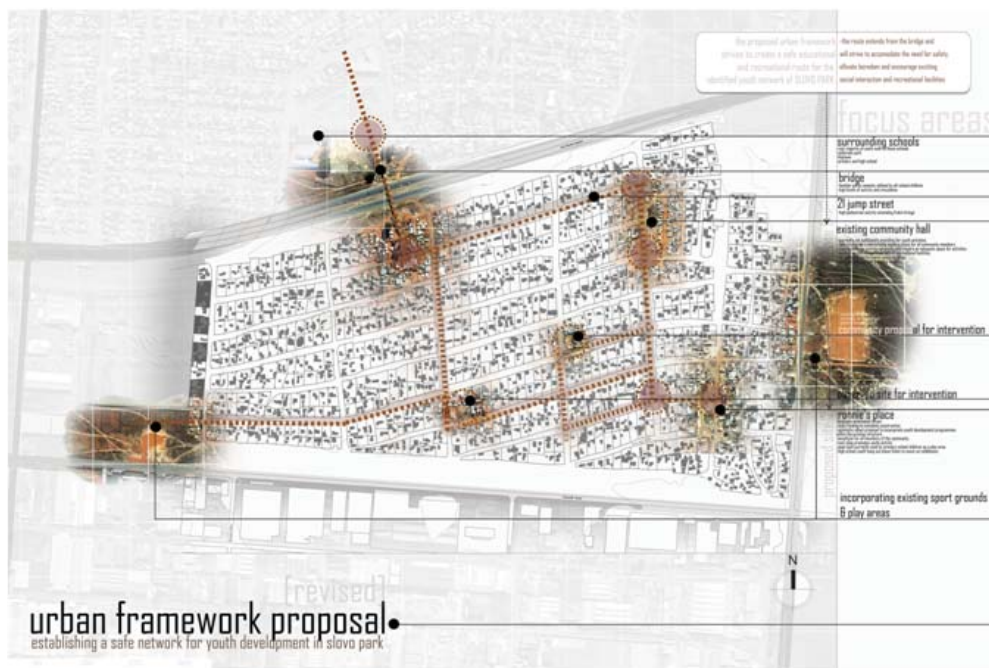


Figure 5.120: Slovo Park: Urban framework proposal focused on enhancing the activity nodes related to youth activities (Becker et al 2013)



Figure 5.121: Slovo Park: Urban design framework proposal addressing the existing retail route and activity nodes related to artisans and recyclers (Dawjee et al 2013)



Figure 5.122: Alaska: Urban strategy focused on enhancing the activity route converging on an identified community gathering space (Coetzee, Jordaan, Visser, Wilken 2013)

4[ZONING] - IDENTIFICATION OF VARIOUS SITES FOR IMPLEMENTATION

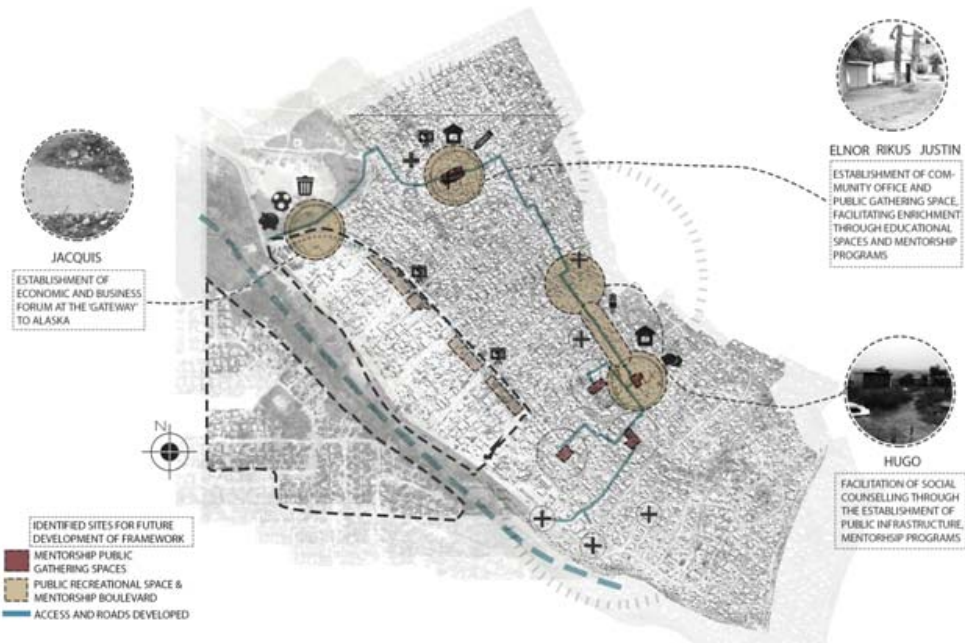


Figure 5.123: Alaska: Urban strategy focused on supporting identified nodes of network activity with the aim of encouraging social stability in the settlement (Coetzee, de Kock, Labuschagne, Tolsma, Hugo 2013)



Figure 5.124: Studio contact sessions between students and the community members who had been contacted in the two settlements (Author 2013)

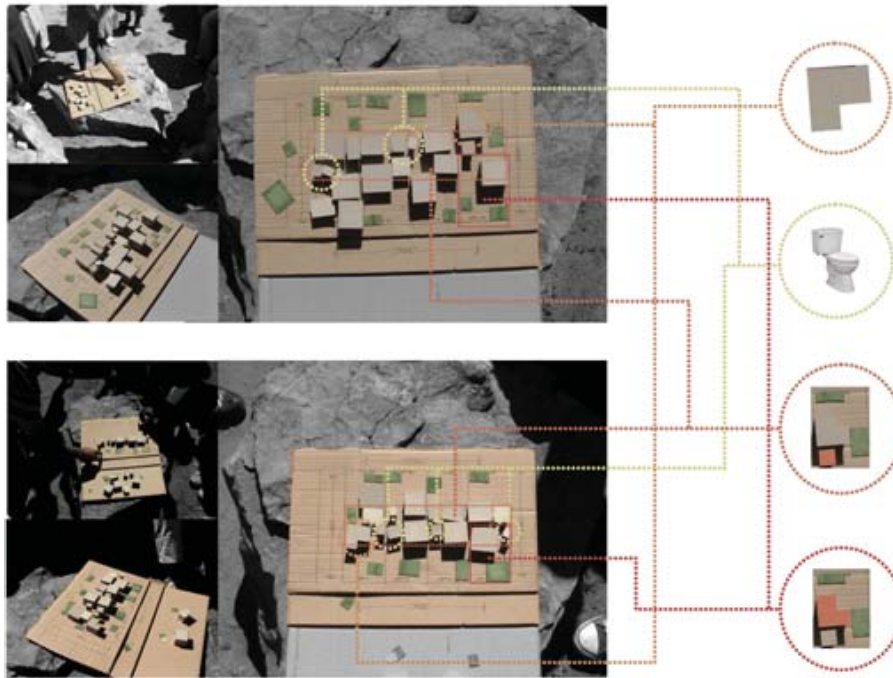


Figure 5.125: Alaska: Collaborative design process making use of interactive model building (Mattheus 2013)

Table 5.36: Application of CAP methodology: Set of Actions and related Tasks in RFP 721 (2013)		
CAP methodology applied?		Reasons?
Identify and prioritize actions		
✓	Decide actions & related spatial & non-spatial interventions	Urban design strategies embrace existing non-spatial patterns and enhance these through proposed physical interventions
✓	Prioritize interventions: need, feasibility and political viability	Phased, incremental interventions proposed in response to socio-economic needs identified
✓	Consider consequence & grouping in terms of input and goods	Through identification of networks, responsibility structures and potential equity contributions established
Augmentation to Set of Actions and Related Tasks		
✓	Collaborative Design	Regular visits to site, reciprocal studio contact sessions ensure collaborative process

5.8.3.6. CAP wall chart: Plan for Implementation (+ Community Architecture)

By making use of the base platform inherent in the CAP and focusing in on networks active within the settlements, it was possible to arrive at significant loci for proposed interventions, confirmed by existing spatial appropriation for related activities.

Effectively, the majority of sites identified were able to illustrate their reinforcement of existing use and significance, rather than imposing new functions on unknown sites. The process of investigation informed the conceptual approach to the urban design frameworks that in turn supported the choice of sites for proposed intervention.

Building on the conceptual urban frameworks within the parameters of the identified activity networks, programmatic responses reflected a grasp of the requirements and possibilities within specific segments of the two settlements. Programmes were mostly suited to an incremental development in support of self-sustaining livelihood opportunities. Many of the student designs were considerate of the processes required for stabilization as part of the architectural resolution.

Some resistance to community input was experienced in a particular group working in Slovo Park, who proposed the demolition of the existing community hall as part of their proposed design intervention (Figure 5.126). The position and orientation of the hall was considered to be problematic in terms of the public space it serves, its construction inferior and in need of rehabilitation. This proposal was vehemently critiqued both by the studio lecturers as well as the community leadership who had been part of the upgrade processes. This provided a good opportunity for the consideration of negotiation and the role of architect-as-expert top down authority as opposed to architect-as-facilitator. Due to this group's interaction with a neighbouring pastor whose interests differed from that of the Development Forum, the students felt confident in their allegiance to the alternative voice in the community and therefore defended their position, holding their ground for the duration of the module.



Figure 5.126: Slovo Park: Proposal to demolish the community hall and replace with new structures (Lundie 2013)

At the opposite end of the scale, a group of particularly talented designers working in Alaska were so overwhelmed by their concern and respect for the community structure and authority that they were disempowered in the design process. They ceded authorship to such an extent that their proposals were difficult to evaluate.

Studio critique was blended with comments by the identified community members resulting in a continuum of consideration for real-world concerns as well as academic requirement. This resulted in a mostly successful transition from the collective urban response to the individual design proposition (Figure 5.127; 5.128; 5.129).

The composition of the groups to be inclusive of landscape architecture and interior architecture students played a significant role in determining the level of urban and contextual responsiveness (Figure 5.130; 5.131). The focus of the urban investigations was aimed at discovering the points of social convergence, which also pre-empted a consciousness of the urban context as determined by edges, thresholds, open space, scale and recognition.

Group collaboration was encouraged and several proposals incorporated the public space successfully with the proposed architectural intervention. Mediated threshold opportunities were proposed by many of the students, indicating an awareness of the urban and contextual significance (Figure 5.132; 5.133).

Due to this heightened urban and contextual response, it became clear that the majority of the group were able to navigate the transitional intersection between individual and collective as manifested in the architectural proposal. This is seen as a positive outcome of work produced during this iteration.

On the whole there was a greater confidence exhibited in engaging with the particularities of the site and the people living there than in some of the previous investigations. The regular feedback clearly influenced the nuances of typological investigation and anchored some of the decision making processes (Table 5.37).

Students were able to speak with authority of the frameworks influencing the design process,

mostly referring to those represented by the community's needs rather than theories or precedents derived from external sources. In many cases, there was a distinct decision to discard academic theory in favour of a response to the more populist requirements or preferences voiced by the community members.

The intensely collaborative nature of this engagement provided a possible platform for the development of a complex identity in architectural terms, representing the constraints and opportunities in informal settlements.

Assessment by the panel of internal lecturers and external professional architects assumed the same format as in previous years, thereby making the outcomes comparable. It is noted again that, despite the stated focus on process and complexity, student projects remain subjected to the expectation of individual resolution, mostly of the product.



Figure 5.127: Slovo Park: proposed intervention in response to existing conditions on site (Dawjee 2013)

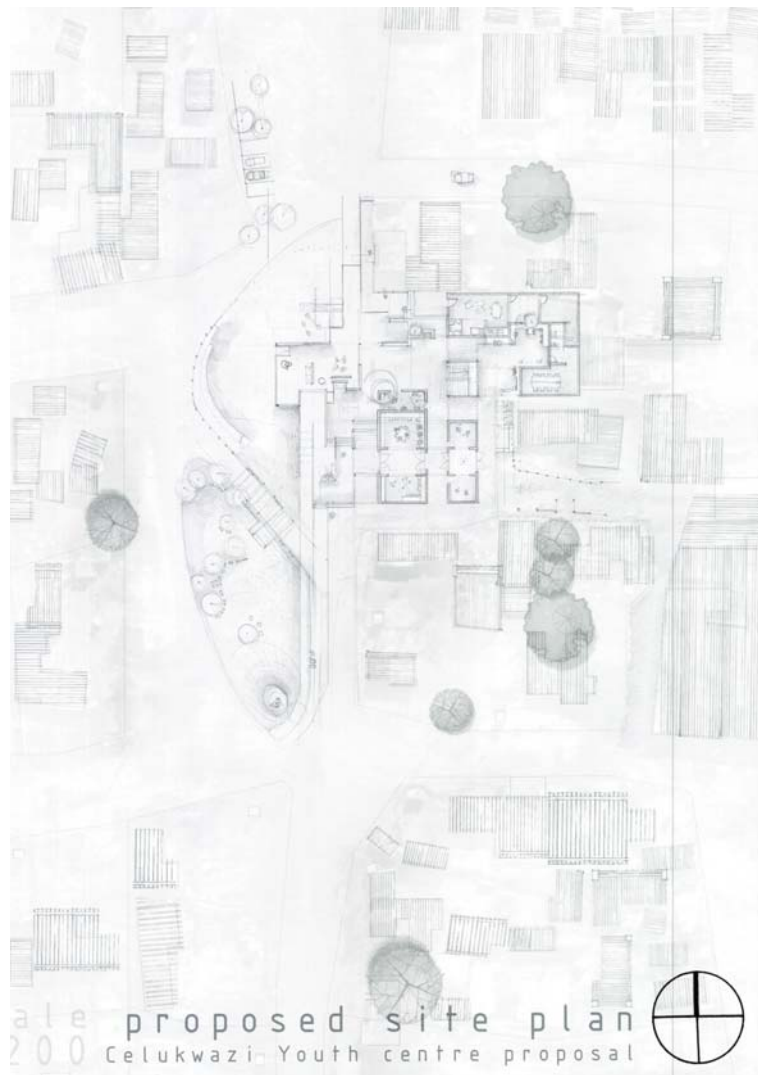


Figure 5.128: Slovo Park: Proposed architectural augmentation of existing structures in response to activities at nodal point (Ramos 2013)



Figure 5.129: Slovo Park: Architectural interventions proposed as augmentation of existing activities and structures identified at nodal point in settlement (Leeferink 2013)



Figure 5.130: Alaska: Improvement of public spaces and urban thresholds on existing pedestrian routes and activity nodes identified through engagement process (van den Ende 2013)



Figure 5.131: Alaska: Enhancement of public gathering space and proposed intervention addressing stormwater problems on the site (Wilken 2013)

phasing



Figure 5.132: Alaska: Proposed architectural intervention towards incremental consolidation of existing dwelling and use patterns following collaborative approach (Mattheus 2013)

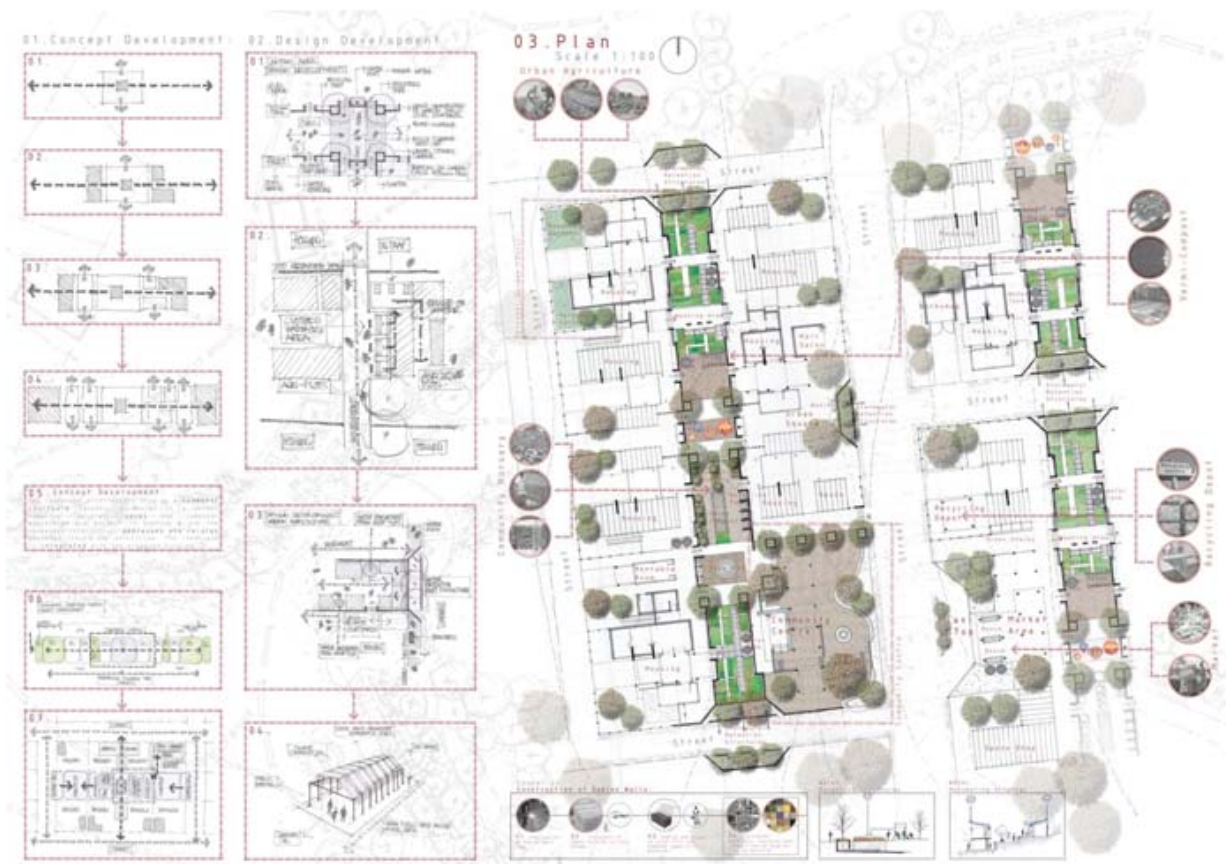


Figure 5.133: Alaska: Incremental approach to proposed improvements to shared semi-private space (Engberts 2013)

Table 5.37: Application of CAP methodology: Plan for Implementation in RFP 721 (2013)		
CAP methodology applied?		Reasons?
Identify tasks		
√	Consider primary tasks	Incremental approach to proposed architectural interventions, in support of strengthening networks through the development
√	Consider constraints	Spatial and programmatic resolutions responsive to networks and nodal conditions
√	Establish responsibilities: Full, shared, support	Structures of authority and responsibility established in network groups identified through engagement process and considered in proposed interventions
Synthesize proposal		
√	Prepare co-ordinated plan for action	Interventions situated within urban design framework and sustained livelihood strategies
x	Executive summary of workshop	
√	Area profile	Urban frameworks include comprehensive documentation of context
√	Overall planning objectives	Planning objectives situated within overall consideration of settlement and metropolitan area
Project memorandum		
√	Project objectives	Objectives specific to architectural proposals investigated
x	Project implementation	
x	Project budget	
x	Plan	
Augmentation to Plan for Implementation		
x	Community Architecture	

5.8.4. Conclusion

By 2013, CAP was officially introduced to the student brief, including the proposed augmentation measures in as far as they could be applied by students at the Honours level. The focus was specifically at identifying the organising social networks active within the settlement, especially taking note of their spatial manifestation. Points of architectural intervention were then expected to relate programmatically to the needs identified through engagement with the community and resolved at a spatial level through collaborative interaction.

By involving the whole Honours class, it was possible to evaluate whether this approach to developing architectural response could be applied to the two different contexts of Slovo Park and Alaska. From the examples illustrated in this document, it is evident that students were able to assimilate aspects of CAP and successfully apply these principles to the development of urban strategies as well as architectural proposals. Through the proposed interventions, existing social capital could be reinforced and enhanced, thereby supporting sustainable livelihood strategies.

Including the community members in the studio feedback loops served to strengthen some of the design proposals, although this process remained tentative. Despite the allowance made in the brief and schedule for collaborative design, it remains an evasive component of the augmentation to CAP. On the whole, however, the 2013 Honours group were able to transition between the collective and the individual requirements more easily than the previous groups, thereby confirming that this approach to the module could be assimilated in the time available.

5.9. Conclusion to chapter five

Student work undertaken at the University of Pretoria Department of Architecture within the research field of Human Settlements and Urbanism in the period 2010 – 2013 has served as a case study in which the application of Community Action Planning (CAP) has been documented (Table 5.38).

During each iteration of the Research Field Project (RFP) module, the student brief has established the parameters and expected outcomes of the students' engagement in the informal settlements of Slovo Park in Johannesburg and Alaska, Mamelodi in Pretoria. By way of theoretical underpinning in the accompanying Research Field Study (RFS) module, students were increasingly introduced to CAP through the Hamdi's (2010) *Placemaker's Guide to Building Community*. During 2012 and 2013 the student brief explicitly included reference to the wall chart developed at Massachusetts Institute of Technology Special Interest Group in Urban Studies (MIT SIGUS 2014) by Goethert & Hamdi, describing the methodology of the CAP.

Beyond the scope of the RFP module, a workshop series conducted in Slovo Park during 2011 has been considered in terms of the augmentation measures to the CAP as proposed in chapter 4 of this thesis investigation. Specifically, the workshops embodied the application of needs analysis methods proposed in *Human Scale Development* (Max-Neef 1991) and in drawings depicting *Images of Home* (Cooper-Marcus 1995).

The augmentation proposed in the collective *Testimonio* (Brabeck 2003) became manifest in the documentary film *Waterborne* that was produced in collaboration with some of the students enrolled for the RFP module during 2012.

During 2010 and 2012, the relationship that developed between the students engaged on site and the community leadership of Slovo Park resulted in a shared desire to implement improvements to the existing community hall. These *live builds* have been included in the case study and considered in terms of their processes in which CAP methods were applied.

From this case study and following a process of critical reflection after each year of application, CAP has been integrated into the Honours curriculum at the department of

Architecture at the University of Pretoria. The approach to architectural intervention has been adjusted from product-oriented to process-driven. Students have identified existing social networks that sustain livelihoods in informal settlements, responding to the spatial enhancement of these nodes of energy. Despite the continued challenge of assessment by panels of professional architects who are not similarly immersed in such an approach, an increasing awareness of its importance has been noted.

The initial inability of the 2010 group to transition from their immersion in the research and the urban strategy to the individual proposals was significantly improved over the period of investigation, with the 2013 groups both in Alaska and Slovo Park displaying a good grasp of the settlement dynamics as well as sensitive architectural articulation of the proposed interventions.

Collaboration between students and community members was evident in the construction of Slovo Hall and its subsequent upgrade. However, the possibility of engaging in shared authorship in terms of architectural articulation remained elusive throughout the study period.

In the following chapter, findings of the case study will be considered in terms of the ability to address the key factors contributing to the marginality of the architectural profession to the discourse on informal settlement upgrade. The potential of the CAP methodology, along with proposed augmentation to the CAP has been considered in chapter 4. Through the application of CAP over a four year period, this potential will be off-set against the constraints and opportunities experienced on site and in the context of architectural production in an educational context. These findings will then contribute to the conclusions drawn in chapter 7 of the thesis.

Table 5.38

Table 5.38 indicates to what extent the CAP methodology has been applied to the course module, the workshop series as well as the live build projects from 2010 to 2013.

Chapter 6

Findings from case study

6.1. Introduction

In the following chapter, the findings of the case study will be discussed. The application of Community Action Planning (CAP) as a platform of architectural engagement will be considered in terms of the key factors contributing to the marginality of the architectural profession in the discourse on informal settlement upgrade as identified in chapter three. From these considerations, a comparative analysis between the potential of the proposed CAP methodology and its subsequent iterations will indicate the ability of students in an architectural programme to address these key factors. The variables impacting on the iteration of the studio modules will be taken into consideration.

6.1.1. Research & design studio

6.1.1.1. Number of students enrolled

- 2010: Five students (voluntary engagement)
- 2011: Fifteen students (mandatory engagement)
- 2012: Fourteen students (voluntary engagement)
- 2013: Twelve students in Slovo Park, twenty two students in Alaska (choice between the two sites)

6.1.1.2. Sites of engagement, history of relationship with community

- 2010: Slovo Park Community Development Forum leadership, introduced via top-structure leadership of CORC/ FEDUP
- 2011: Introduction to NGO Viva Village in Alaska, Mamelodi through the Community Engagement Programme at UP
- 2012: Slovo Park Community Development Forum leadership in conjunction with one of the previous participants in the Slovo Park Community Hall upgrade.
- 2013: Slovo Park community encourage further student interaction; NGO Viva Village offers students a base from which to engage in the informal settlement of Alaska; some students stay over in the settlements for a few days at the beginning of the research period.

6.1.1.3. Student brief and assignments

- 2010: No formal brief, based on structure inherited from 2008/2009

- 2011: Formalised brief with focus on mapping and participation towards appropriate design response
- 2012: Formalised brief with focus on balance between participatory process and product; explicit parameters of expected outcomes
- 2013: Formalised brief introducing CAP as basis of engagement, with focus on identification of socially organising networks within the community. Clear parameters for outcomes of process and product. CAP methodology included as an addendum to the brief

6.1.1.4. Schedules: Studio, assessment and community interaction

- 2010: Broad outlines of design milestones from urban design framework through to building resolution
- 2011: Schedule makes allowance for community engagement on site after initial mapping and interim crits as milestones from urban design framework to building resolution
- 2012: Schedule makes allowance for community mapping and presentation, with interim crits as milestones from urban design framework to building resolution
- 2013: Schedule makes allowance for intense community interaction at the beginning of the quarter, with desk crits in studio by community members and pin-ups in the settlements. One interim crit as milestone for transition between urban design framework and individual design resolution

6.1.1.5. Assessments and crit reports

- 2011: Assessments and reports favour proposal of architectural products, no consideration for participatory processes in the assessments
- 2012: Assessment includes consideration of participatory process and responsiveness to community requirements
- 2013: Assessment includes consideration of participatory process and responsiveness to community requirements

6.1.2. Theoretical support

6.1.2.1. Student brief and assignment

- 2010: Theory course based on cinematography and urbanism
- 2011: Theory course more closely aligned to outcomes of design studio
- 2012: Theory course continued as in previous year
- 2013: Theory includes CAP; Hamdi (2010) prescribed and read in parallel with study of informal settlement upgrade examples

6.1.2.2. Lecture themes

- 2010: The cinematic city and urban design
- 2011: Syllabus themes indicative of a comprehensive approach to urban mapping and authorship in design with small consideration of participative practices
- 2012: Syllabus themes maintained from previous year
- 2013: Focus on CAP; Syllabus themes critical investigation of contemporary approaches to informal settlement upgrade

6.1.2.3. Reading list

- 2010: Reading list including Hamdi (2004, 2010)
- 2011: Extensive reading list including sections of Hamdi (2004, 2010)
- 2012: Reading list continued from previous year, additions include critical position regarding informal settlement upgrade (Huchzermeyer 2011)
- 2013: Hamdi (2010) prescribed, previous reading list adjusted to support syllabus themes

6.1.3. Physical implementation of small-scale interventions

6.1.3.1. Student engagement

- 2010: RFP 710 module accommodates seven week physical engagement
- 2012: Voluntary engagement in July recess; Collaboration with JCP programme

6.2. Application of CAP and Augmentation

In chapter four the various aspects of the CAP methodology were analysed and considered in terms of their potential ability to address the key factors contributing to the current marginality of the architectural profession to the discourse on informal settlement upgrade. Certain augmentation measures were proposed to address these key factors more comprehensively. A comparative analysis of the application of CAP and the proposed augmentations over the study period serves to reveal which aspects of this methodology proved to be most effective in their ability to address the key factors. This analysis has been done in the form of comparative tables in which the application of CAP in each study period has been overlaid with the potential ability to address the key factors. The findings from this analysis are presented below.

6.2.1. 2010 RFP Research and design studio module

The matrix representing the application of CAP and augmentation in terms of key factors during 2010 RFP refers (Table 6.1)

- Summary of total CAP & Augmentation in terms of Key Factors addressed: **9,51%** (Table 6.1.1)

During this first engagement, the most significant application of CAP occurred in the *Making of the Community Map*, where the base map was enriched through the documentation of the dwelling typologies (Figures 6.1; 6.1.1), with no application of *Plan for implementation* or any of the proposed augmentation measures. Through this application of CAP, the key factor of *Tri-sectoral Balance* was most effectively addressed, followed by *Participation* and the *Role of Architects* (Figures 6.2; 6.2.1).

Table 6.1

2010 RFP Full Matrix: Application of CAP & Augmentation in terms of Key Factors

Table 6.1.1.1: 2010 RFP Summary: Application of CAP & Augmentation in terms of Key Factors (refer to Table 6.1)

	Total CAP & Augmentation in terms of each key factor	Introduction	Statement of Problems and Opportunities	Documentation of Key Information	Making Community Map	Actions	Plan for Implementation	Needs & Networks	PGIS	Collaborative Design	Community Architecture	Total CAP	Total Augm	Total CAP & Augmentation
2010 RFP														
Definition	14%	0,00%	0,27%	0,05%	0,27%	0,07%	0,00%	0,00%	0,00%	0,00%	0,00%	0,67%	0,00%	0,67%
Transformative Mandate	12%	0,00%	0,32%	0,27%	0,52%	0,02%	0,00%	0,00%	0,00%	0,00%	0,00%	1,14%	0,00%	1,14%
Tri-Sectoral Balance	10%	0,10%	0,20%	0,60%	1,02%	0,12%	0,00%	0,00%	0,00%	0,00%	0,00%	2,04%	0,00%	2,04%
Tenure security	9%	0,00%	0,27%	0,60%	0,82%	0,07%	0,00%	0,00%	0,00%	0,00%	0,00%	1,76%	0,00%	1,76%
Participation	11%	0,50%	0,62%	0,22%	0,55%	0,12%	0,00%	0,00%	0,00%	0,00%	0,00%	2,01%	0,00%	2,01%
Role of Architects	7%	0,00%	0,30%	0,60%	0,82%	0,17%	0,00%	0,00%	0,00%	0,00%	0,00%	1,89%	0,00%	1,89%
Average	10%	0,60%	1,99%	2,33%	4,00%	0,60%	0,00%	0,00%	0,00%	0,00%	0,00%	9,51%	0,00%	9,51%

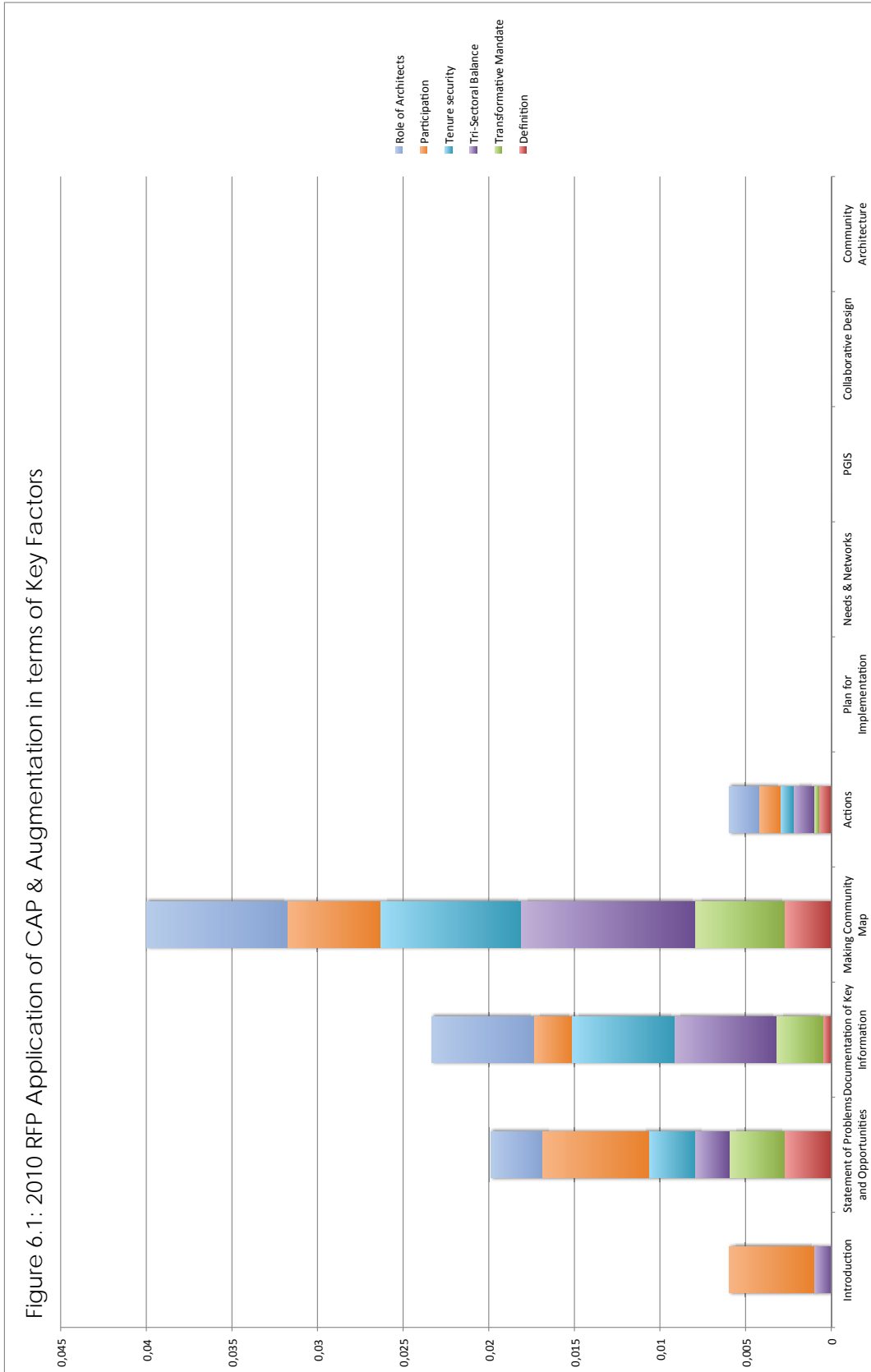
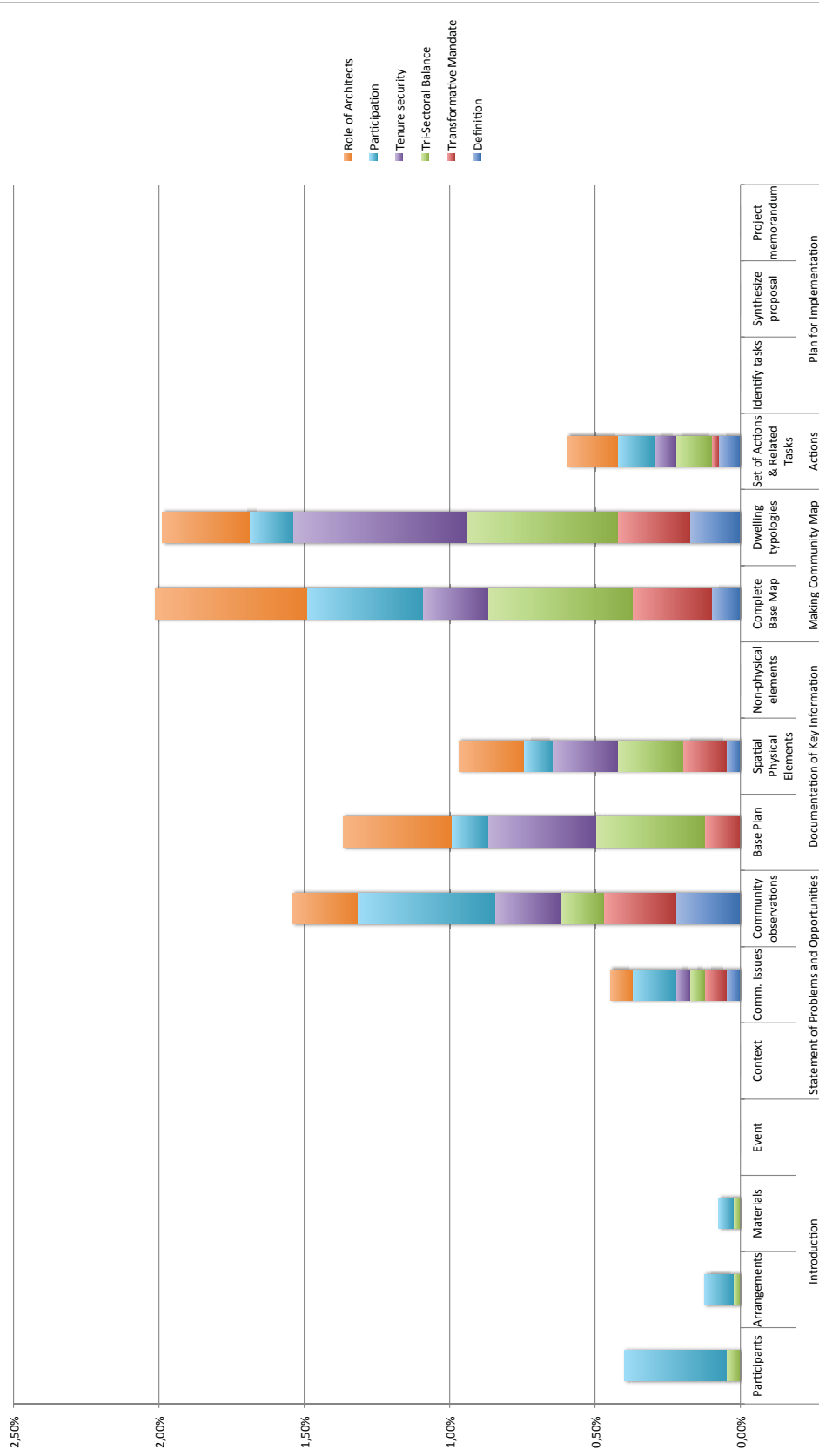
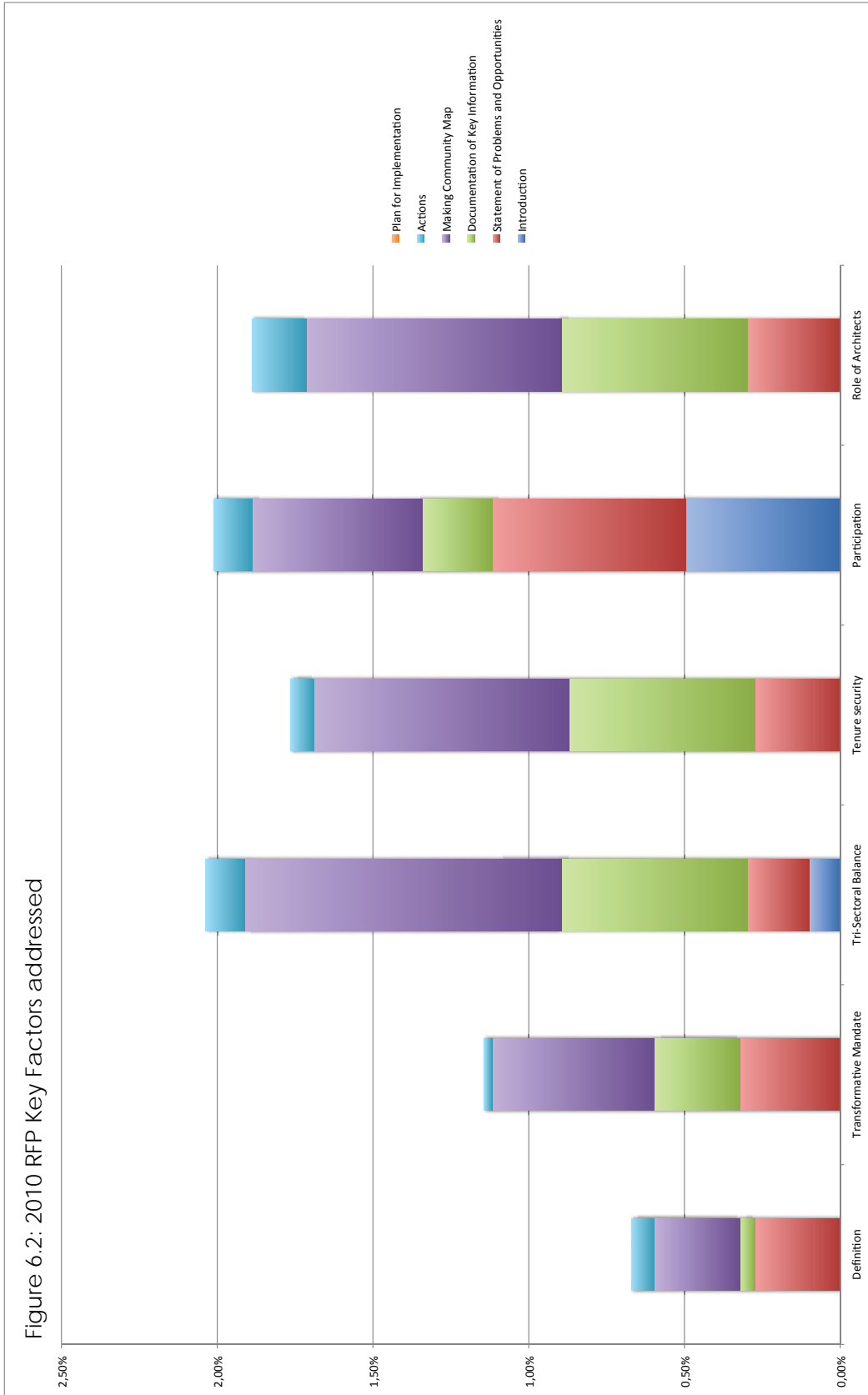
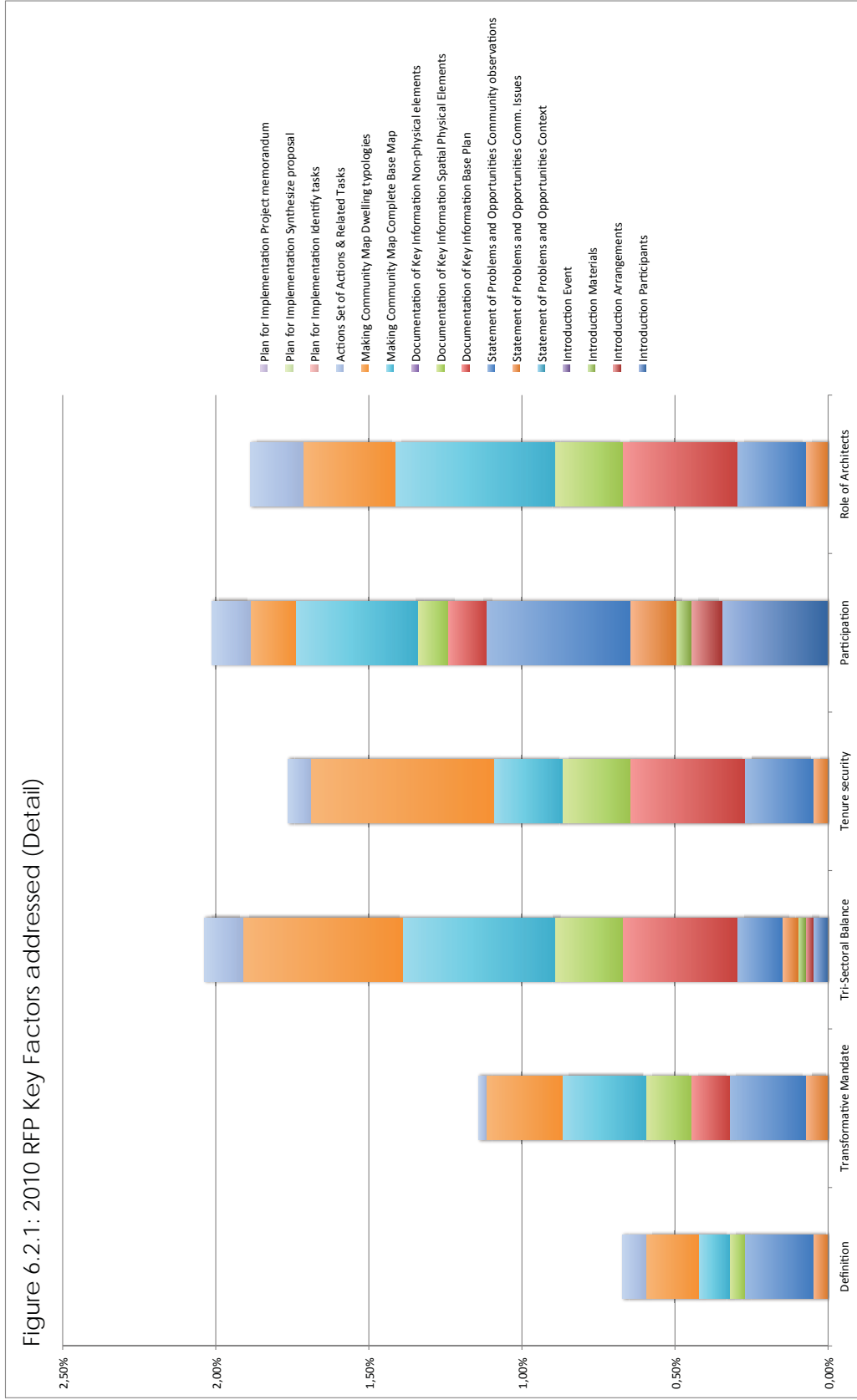


Figure 6.1.1: 2010 RFP Application of CAP & Augmentation in terms of Key Factors
(Detailed methodology)







6.2.2. 2011 RFP Research and design studio module

The matrix representing the application of CAP and augmentation in terms of key factors during 2011 RFP refers (Table 6.2)

- Summary of total CAP & Augmentation in terms of Key Factors addressed: **5,96%** (Table 6.2.1)

In the second iteration of the module, the greatest focus was seen in the *Documentation of Key Information*, specifically in the attention paid to the preparation of the base maps (Figures 6.3; 6.3.1). None of the proposed augmentation measures were applied. From this application, the key factors of *Tri-sectoral Balance*, *Participation* and *Role of Architects* were most pertinently addressed (Figures 6.4; 6.4.1).

Table 6.2

2011 RFP Full Matrix: Application of CAP & Augmentation in terms of Key Factors

Table 6.2.1:
2011 RFP Summary: Application of CAP & Augmentation in terms of Key Factors (refer to Table 6.2)

	Total CAP & Augmentation per factor	Introduction	Statement of Problems and Opportunities	Documentation of Key Information	Making Community Map	Actions	Plan for Implementation	Needs & Networks	PGIS	Collaborative Design	Community Architecture	Total CAP	Total Augm	Total CAP & Augmentation
2011 RFP														
Definition	7%	0,00%	0,07%	0,07%	0,10%	0,07%	0,02%	0,00%	0,00%	0,00%	0,00%	0,35%	0,00%	0,35%
Transformative Mandate	6%	0,00%	0,07%	0,27%	0,17%	0,02%	0,05%	0,00%	0,00%	0,00%	0,00%	0,60%	0,00%	0,60%
Tri-Sectoral Balance	7%	0,05%	0,05%	0,65%	0,30%	0,12%	0,12%	0,00%	0,00%	0,00%	0,00%	1,29%	0,00%	1,29%
Tenure security	6%	0,00%	0,07%	0,55%	0,27%	0,07%	0,17%	0,00%	0,00%	0,00%	0,00%	1,14%	0,00%	1,14%
Participation	7%	0,42%	0,15%	0,32%	0,17%	0,12%	0,12%	0,00%	0,00%	0,00%	0,00%	1,32%	0,00%	1,32%
Role of Architects	5%	0,00%	0,07%	0,62%	0,27%	0,17%	0,12%	0,00%	0,00%	0,00%	0,00%	1,27%	0,00%	1,27%
Average	6%											5,96%	0,00%	5,96%

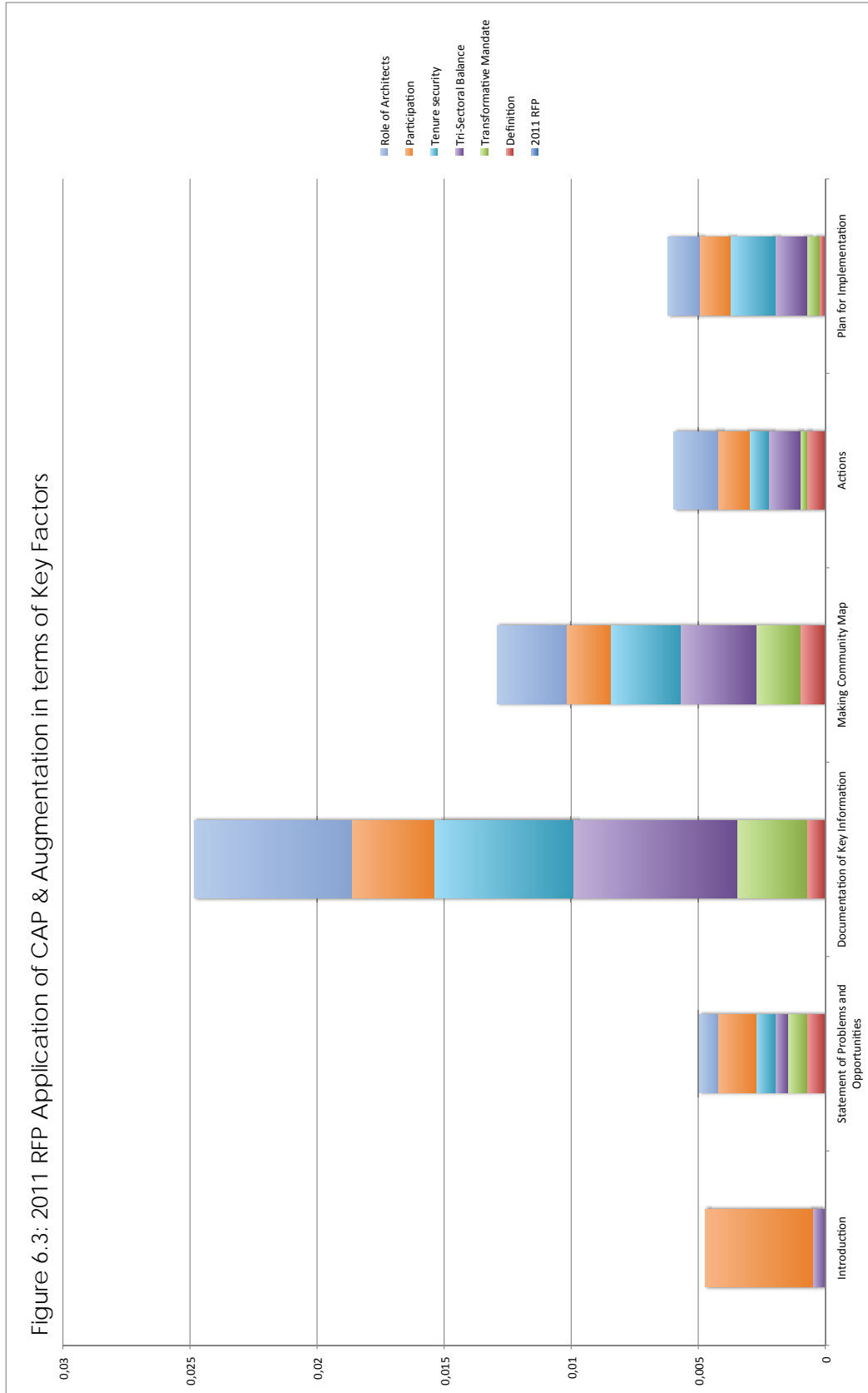
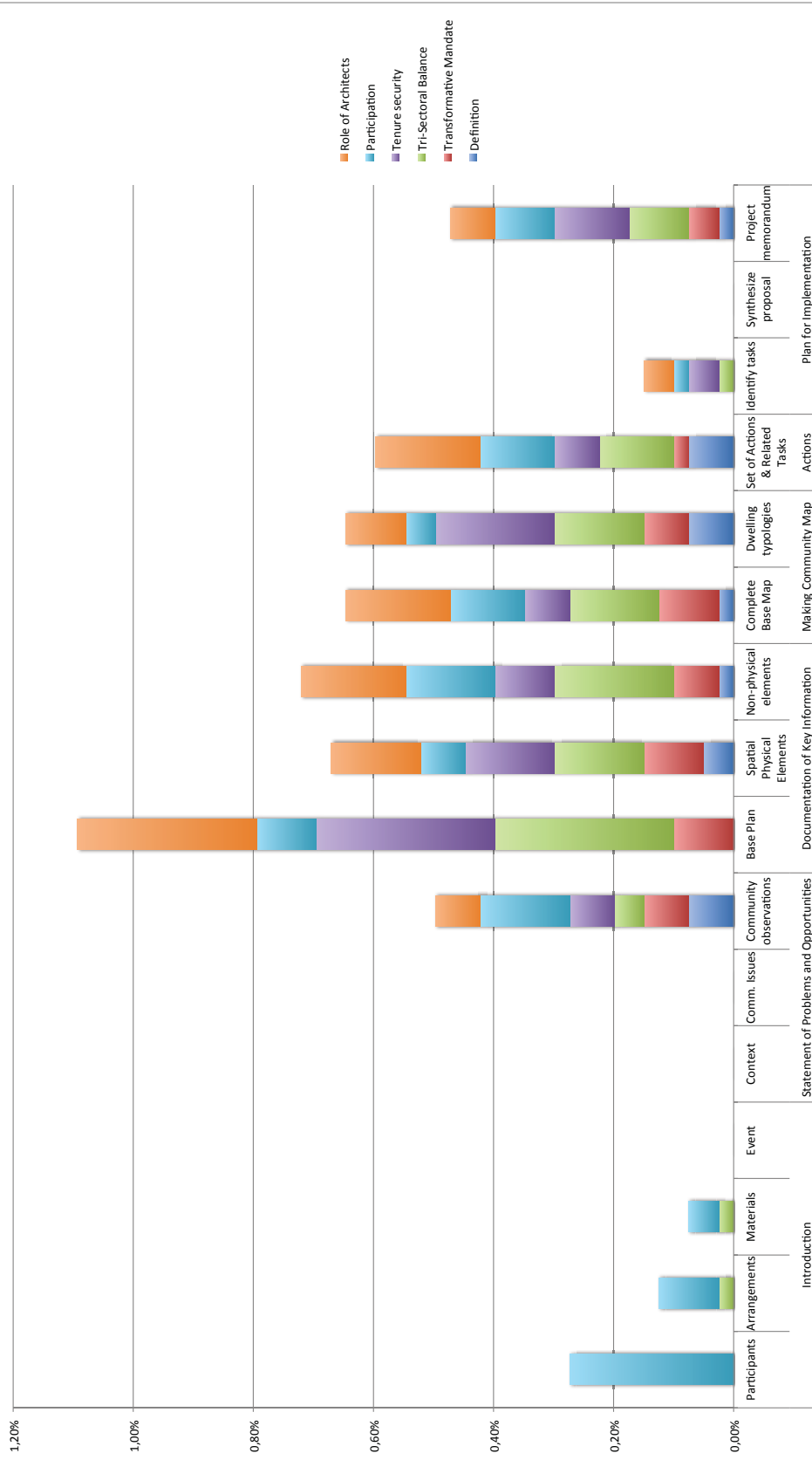
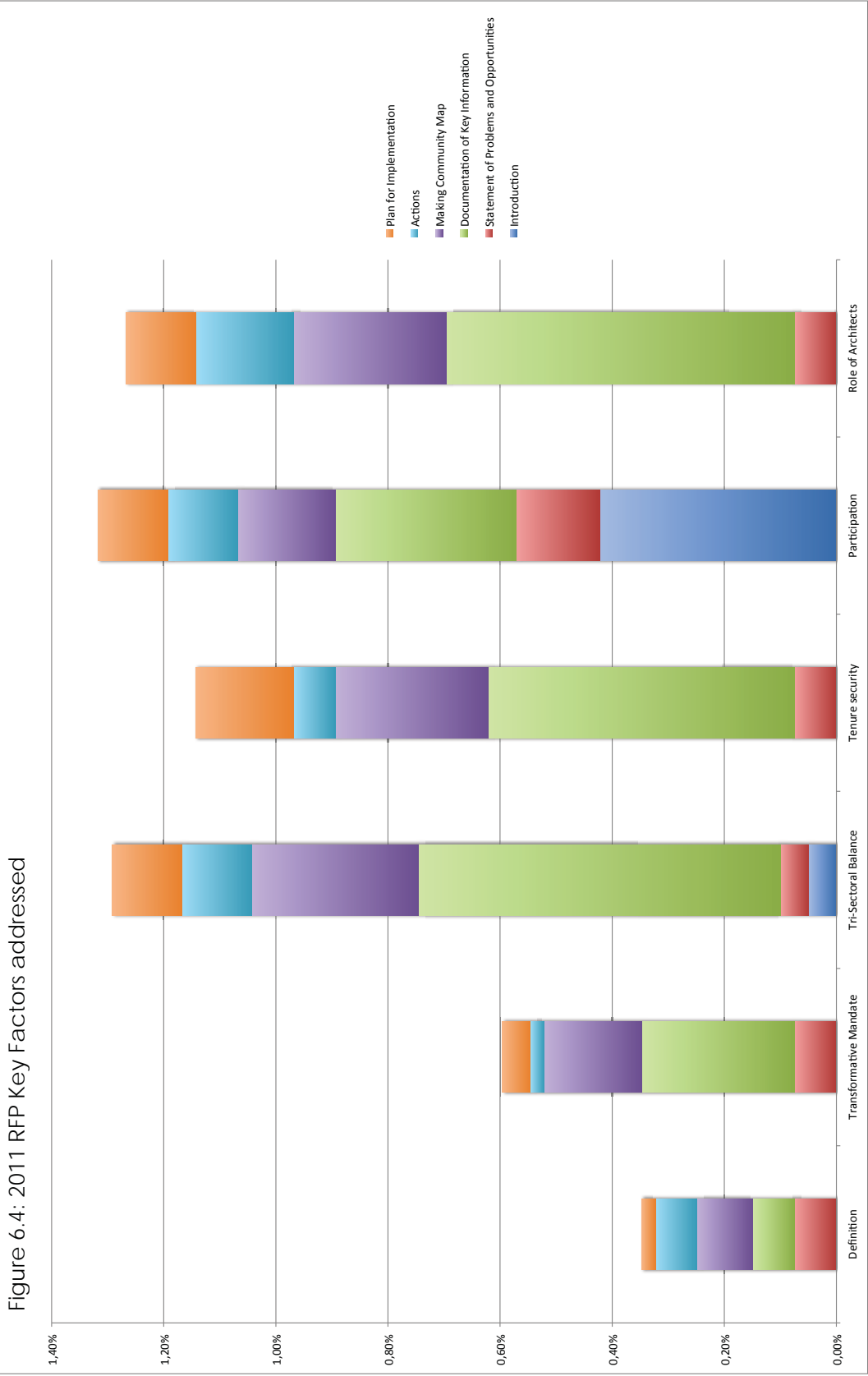
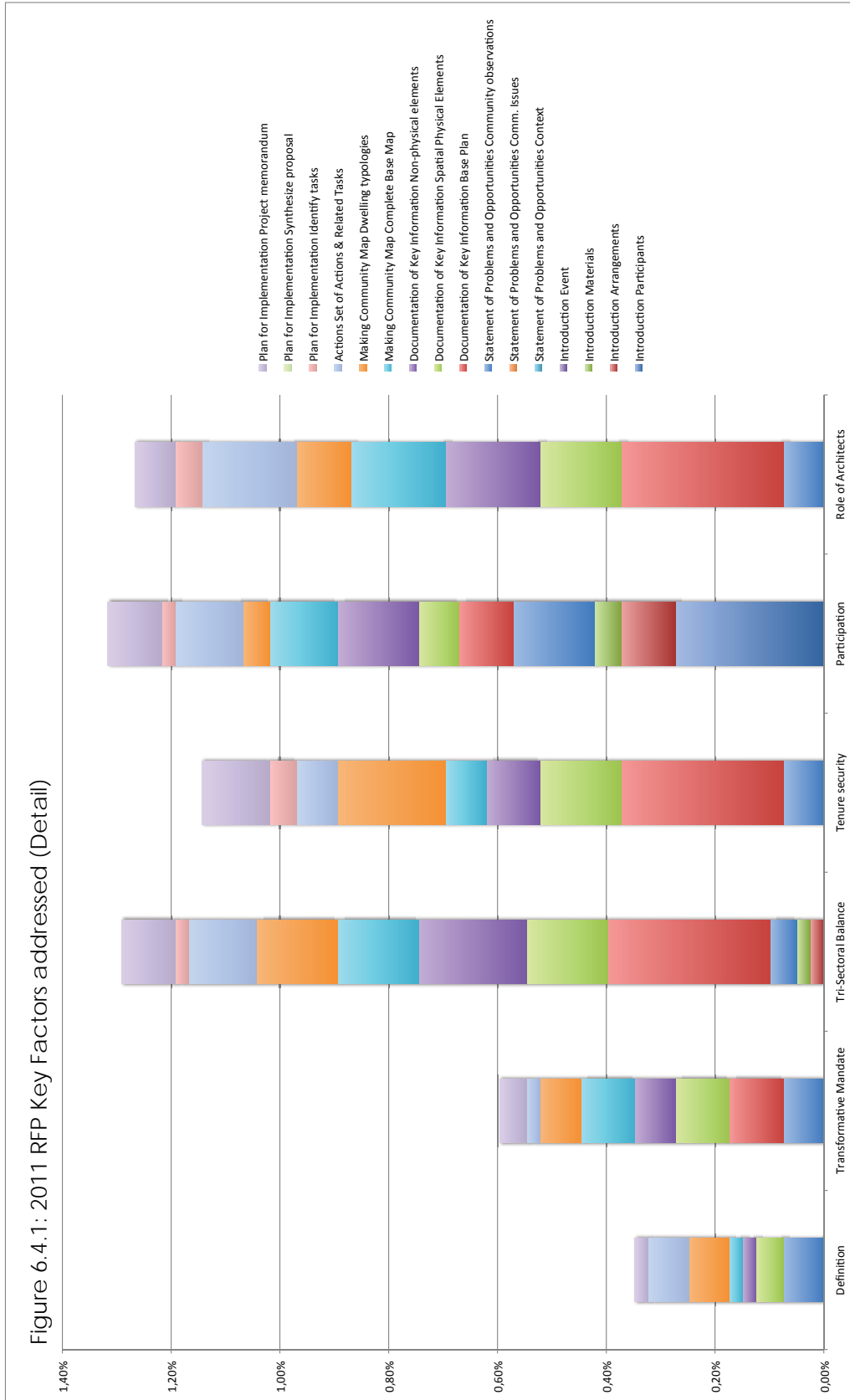


Figure 6.3.1: 2011 RFP Application of CAP & Augmentation in terms of Key Factors
(Detailed methodology)







6.2.3. 2012 RFP Research and design studio module

The matrix representing the application of CAP and augmentation in terms of key factors during 2012 RFP refers (Table 6.3)

- Summary of total CAP & Augmentation in terms of Key Factors addressed: **15,13%**
(Table 6.3.1)

During this iteration, the *Documentation of Key Information* contributed to the greatest extent in addressing the key factors, with contributions through the application of the proposed augmentation measures of *Needs and Networks* as well as *Collaborative Design* appearing to impact specifically on the ability to address the *Role of Architects* (Figures 6.5; 6.5.1). On the whole, this iteration served to address the key factor of *Participation* most effectively, followed by the *Role of Architects* and *Tri-Sectoral Balance* (figure 6.6; 6.6.1).

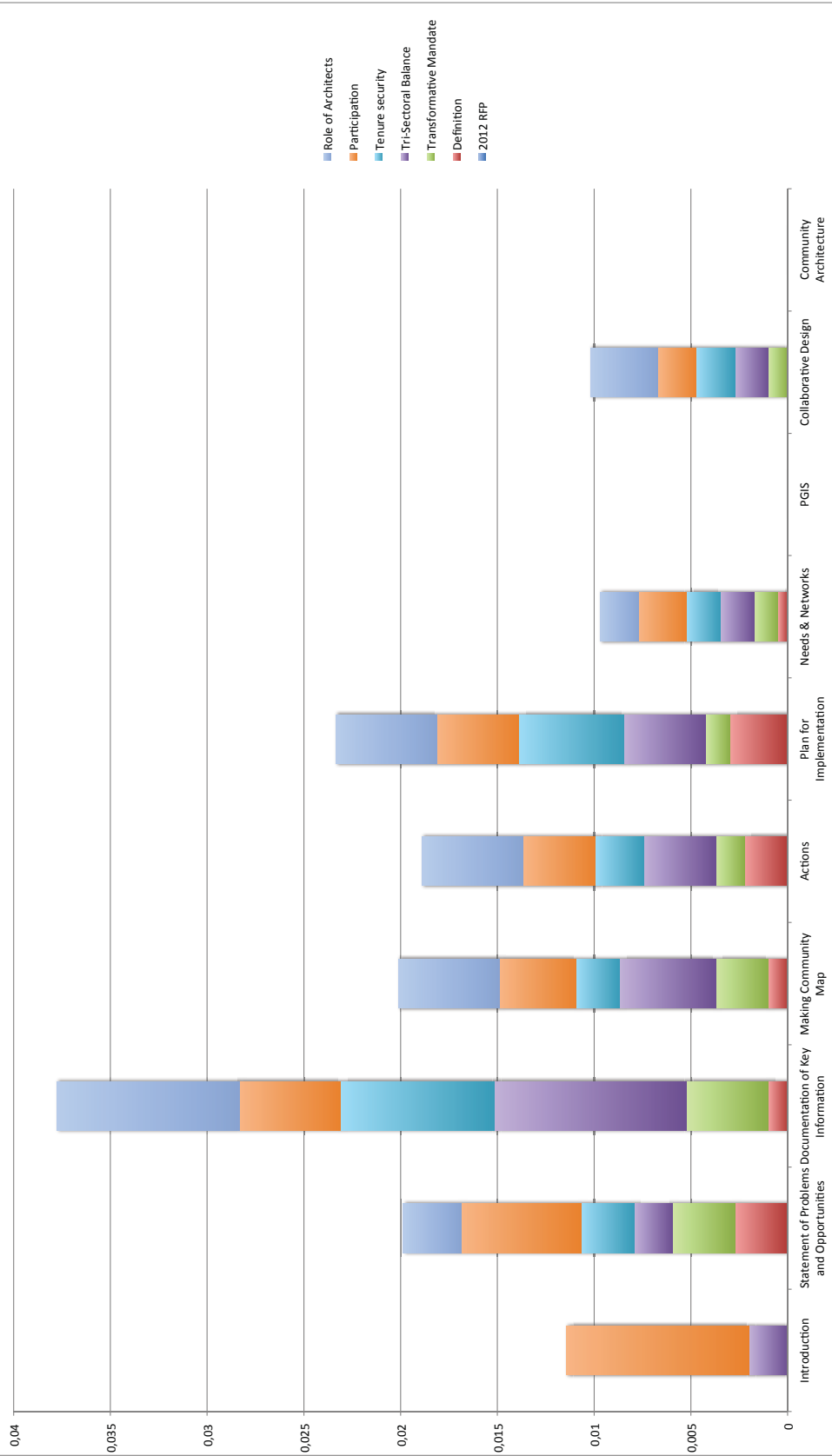
Table 6.3

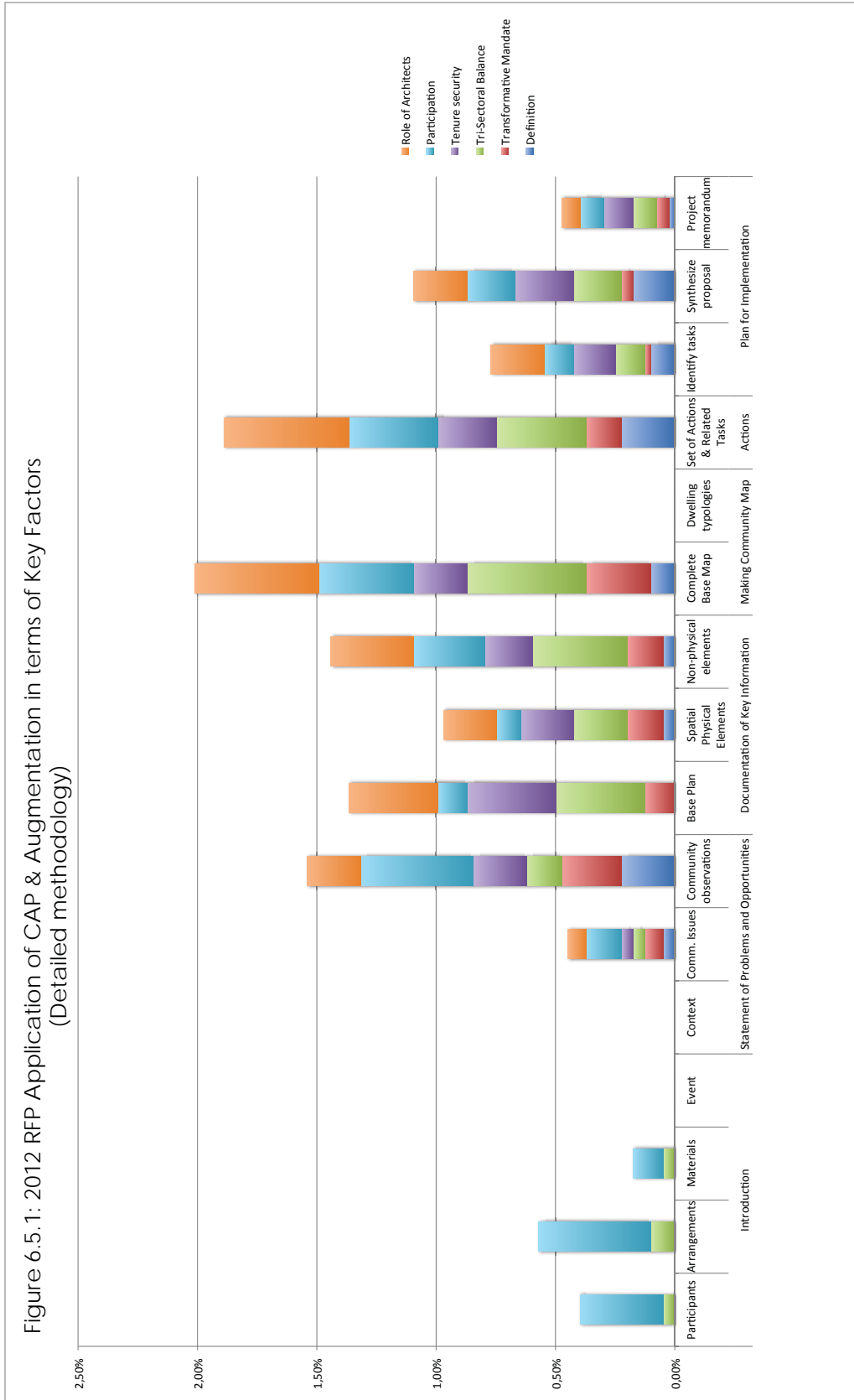
2012 RFP Full Matrix: Application of CAP & Augmentation in terms of Key Factors

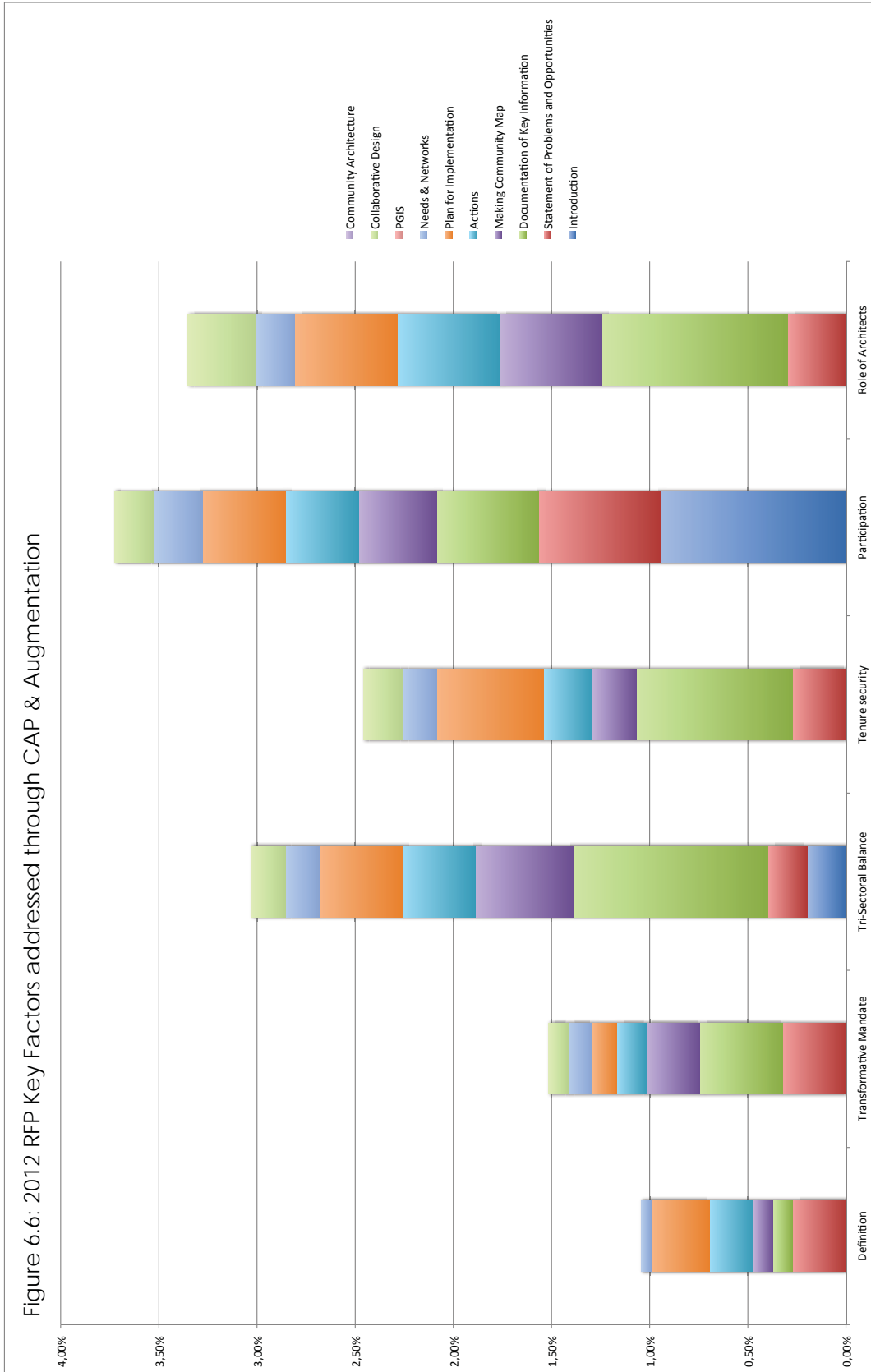
Table 6.3.1:
 2012 RFP Summary: Application of CAP & Augmentation in terms of Key Factors (refer to Table 6.3)

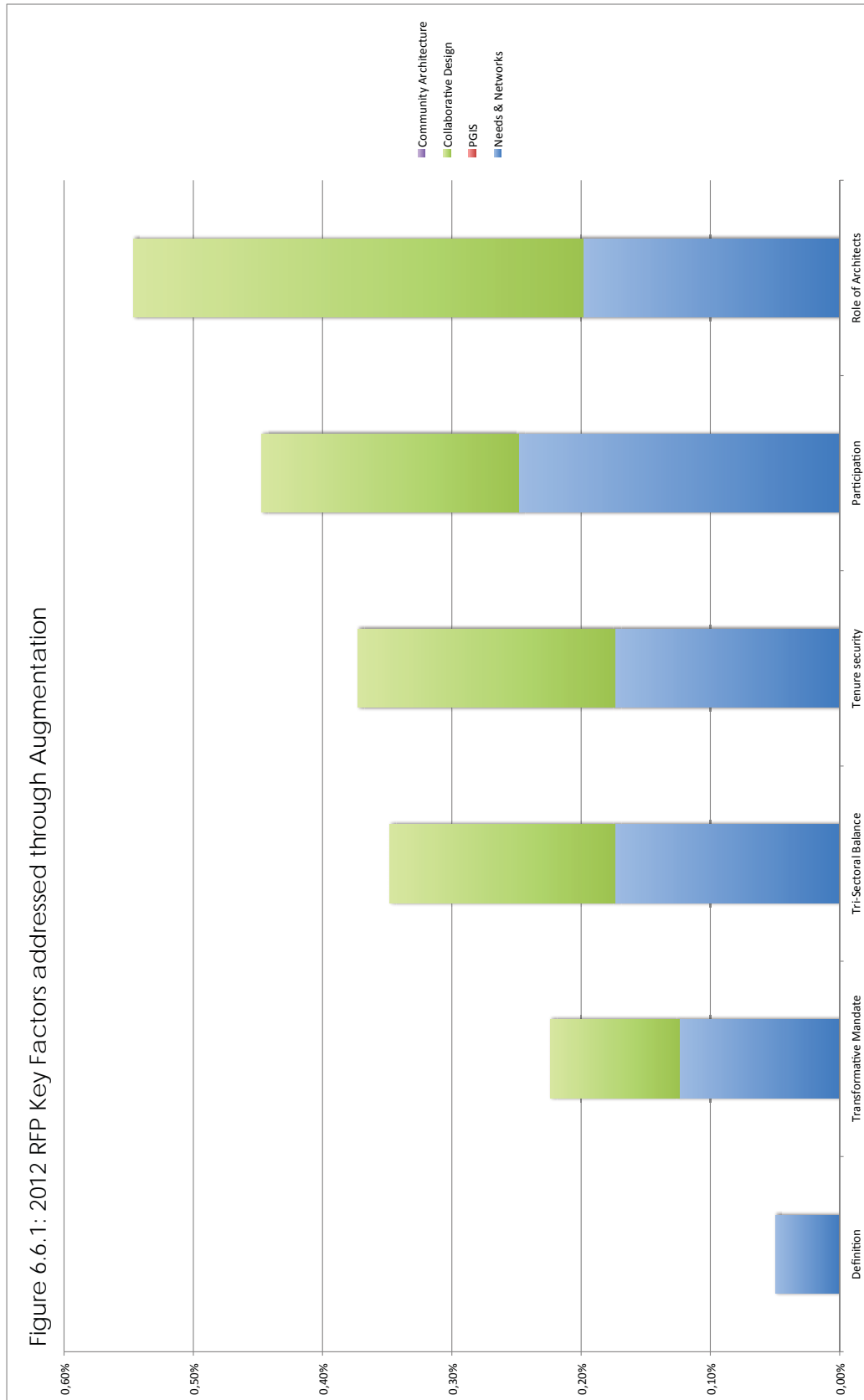
	Total CAP & Augmentation per factor	Introduction	Statement of Problems and Opportunities	Documentation of Key Information	Making Community Map	Actions	Plan for Implementation	Needs & Networks	PGIS	Collaborative Design	Community Architecture	Total CAP	Total Augm	Total CAP & Augmentation
2012 RFP														
Definition	21%	0,00%	0,27%	0,10%	0,10%	0,22%	0,30%	0,05%	0,00%	0,00%	0,00%	0,99%	0,05%	1,04%
Transformative Mandate	15%	0,00%	0,32%	0,42%	0,27%	0,15%	0,12%	0,12%	0,00%	0,10%	0,00%	1,29%	0,22%	1,52%
Tri-Sectoral Balance	15%	0,20%	0,20%	0,99%	0,50%	0,37%	0,42%	0,17%	0,00%	0,17%	0,00%	2,68%	0,35%	3,03%
Tenure security	13%	0,00%	0,27%	0,79%	0,22%	0,25%	0,55%	0,17%	0,00%	0,20%	0,00%	2,09%	0,37%	2,46%
Participation	21%	0,94%	0,62%	0,52%	0,40%	0,37%	0,42%	0,25%	0,00%	0,20%	0,00%	3,28%	0,45%	3,73%
Role of Architects	12%	0,00%	0,30%	0,94%	0,52%	0,52%	0,52%	0,20%	0,00%	0,35%	0,00%	2,81%	0,55%	3,35%
Average	16%											13,14%	1,99%	15,13%

Figure 6.5: 2012 RFP Application of CAP & Augmentation in terms of Key Factors









6.2.4. 2013 RFP Research and design studio module

The matrix representing the application of CAP and augmentation in terms of key factors during 2013 RFP refers (Table 6.4)

- Summary of total CAP & Augmentation in terms of Key Factors addressed: **17,36%**
(Table 6.4.1)

The application of CAP included the augmentation measures of *Needs and Networks*, *PGIS* and *Collaborative Design* in the final iteration of the module. From this comprehensive application, the most prominent aspect of the CAP application remained in *Making the Community Map* and in the *Documentation of Key Information*, with a focus on the base map (Figures 6.7; 6.7.1). Once again, it was found that the key factors of *Participation* and the *Role of Architects* were most effectively addressed in this iteration (Figure 6.8; 6.8.1).

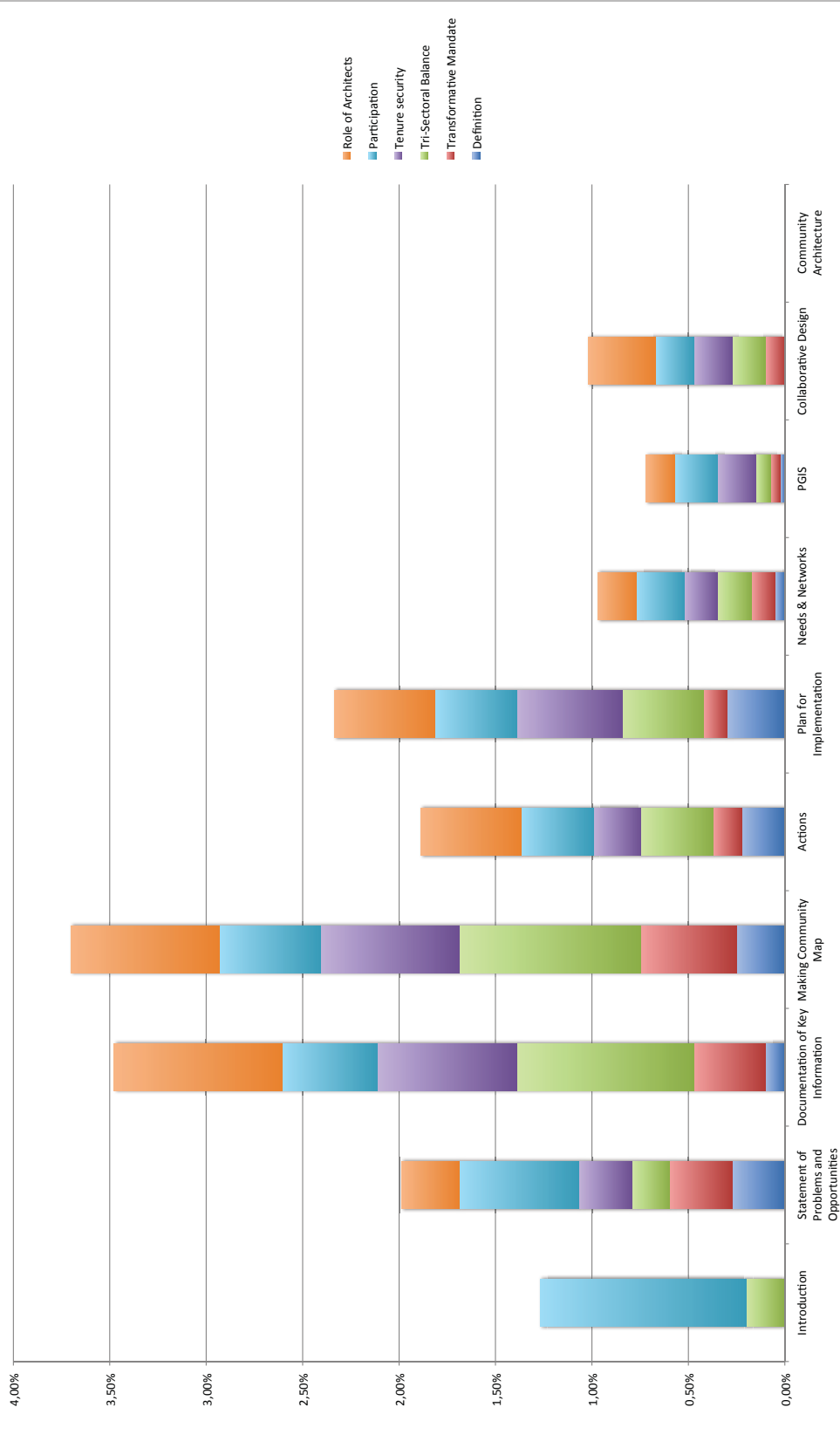
Table 6.4

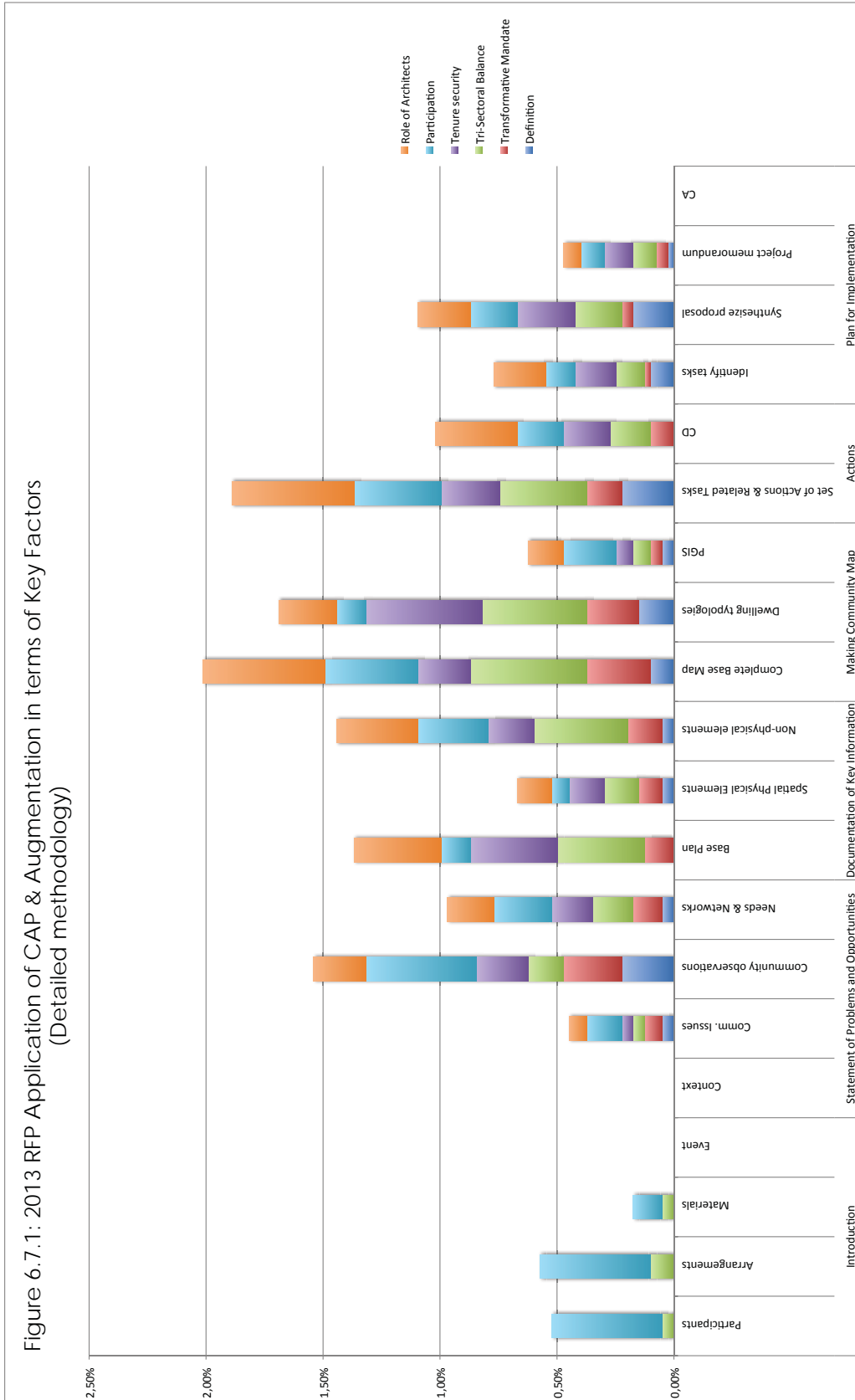
2013 RFP Full Matrix: Application of CAP & Augmentation in terms of Key Factors

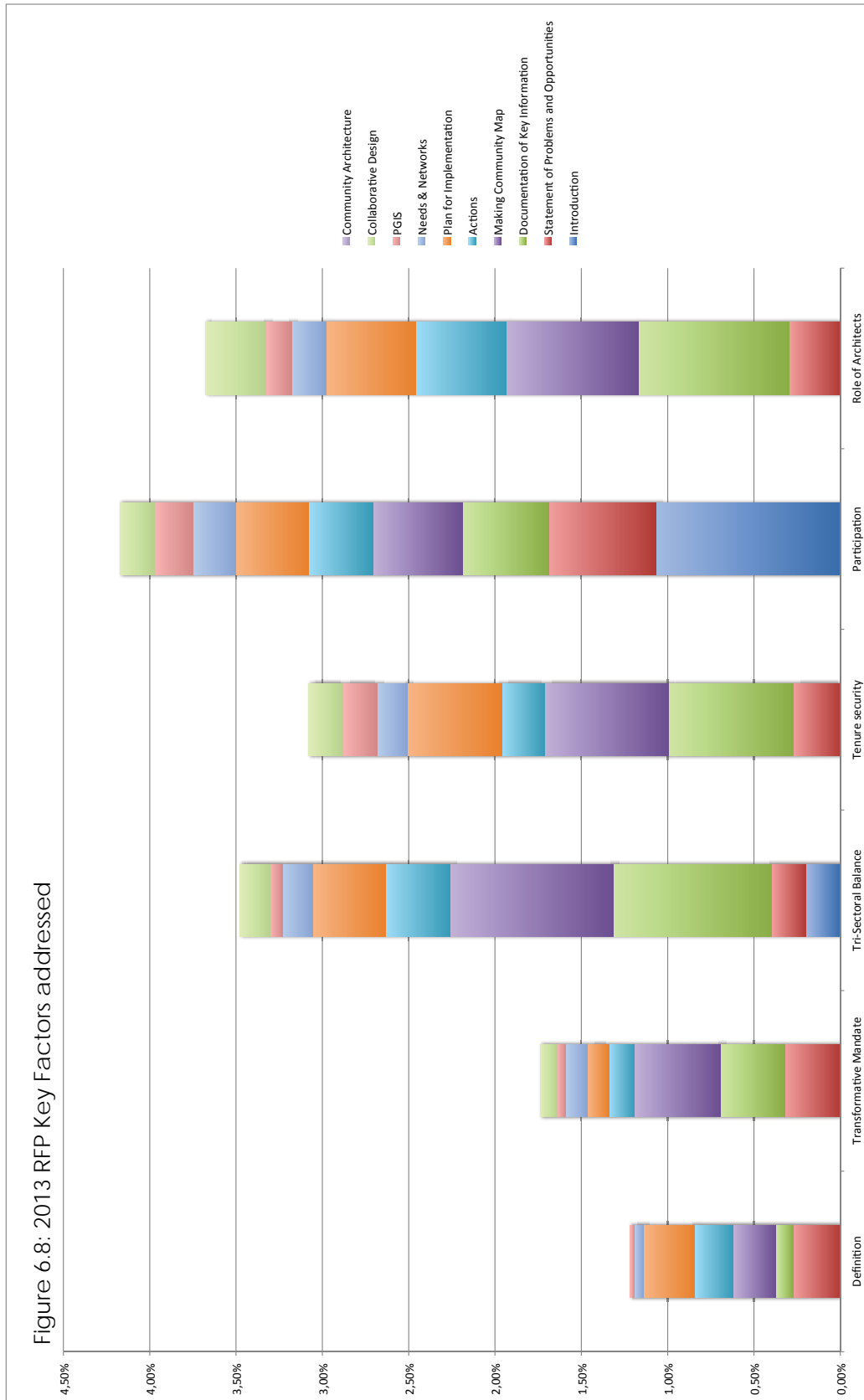
Table 6.4.1: 2013 RFP Summary: Application of CAP & Augmentation in terms of Key Factors (refer to Table 6.4)

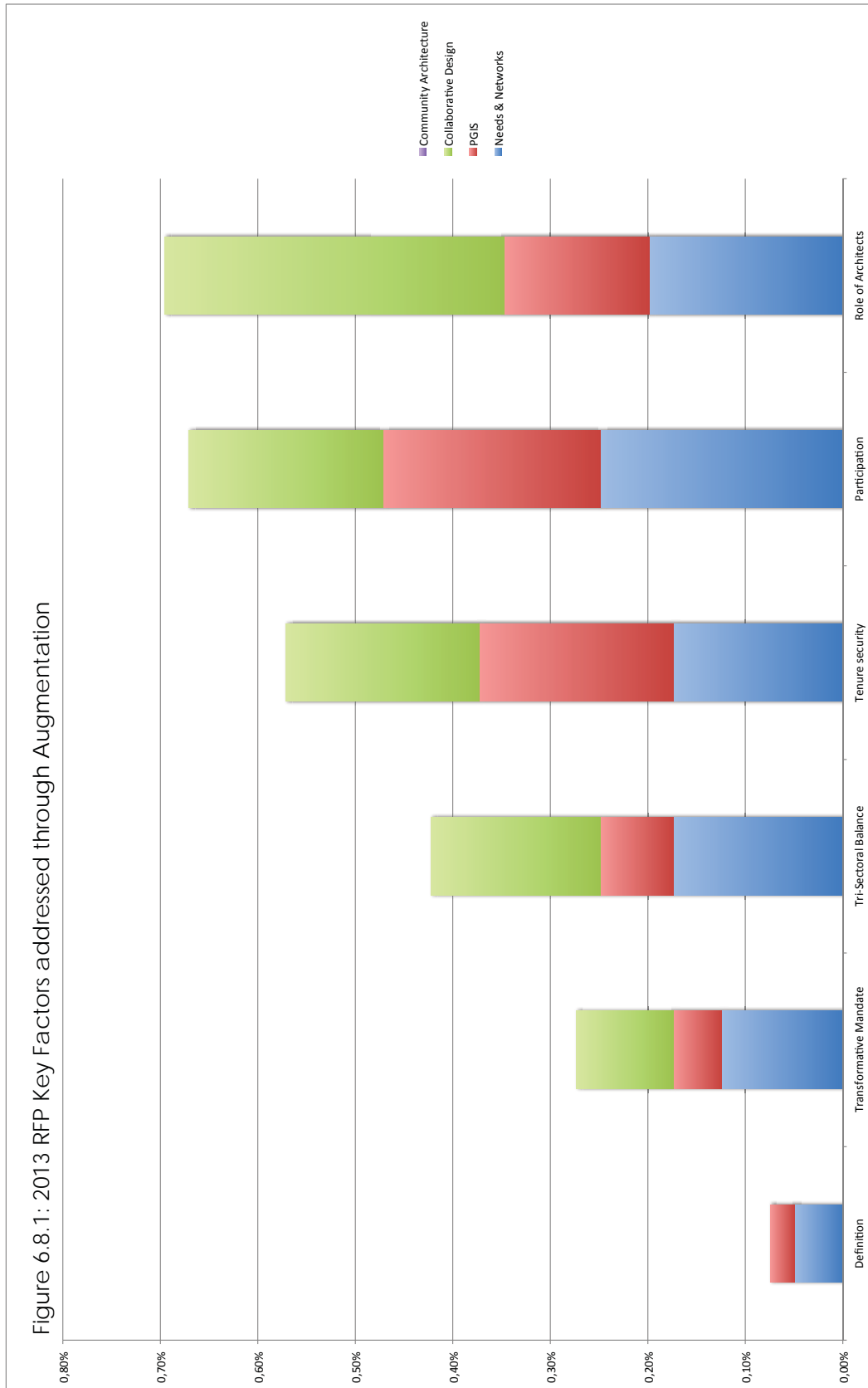
	Total CAP & Augmentation	Introduction	Statement of Problems and Opportunities	Documentation of Key Information	Making Community Map	Actions	Plan for Implementation	Needs & Networks	PGIS	Collaborative Design	Community Architecture	Total CAP	Total Augm	Total CAP & Augmentation
2013 RFP														
Definition	25%	0,00%	0,27%	0,10%	0,25%	0,22%	0,30%	0,05%	0,02%	0,00%	0,00%	1,14%	0,07%	1,22%
Transformative Mandate	18%	0,00%	0,32%	0,37%	0,50%	0,15%	0,12%	0,12%	0,05%	0,10%	0,00%	1,47%	0,27%	1,74%
Tri-Sectoral Balance	18%	0,20%	0,20%	0,92%	0,94%	0,37%	0,42%	0,17%	0,07%	0,17%	0,00%	3,06%	0,42%	3,48%
Tenure security	15%	0,00%	0,27%	0,72%	0,72%	0,25%	0,55%	0,17%	0,20%	0,20%	0,00%	2,51%	0,57%	3,08%
Participation	23%	1,07%	0,62%	0,50%	0,52%	0,37%	0,42%	0,25%	0,22%	0,20%	0,00%	3,50%	0,67%	4,17%
Role of Architects	13%	0,00%	0,30%	0,87%	0,77%	0,52%	0,52%	0,20%	0,15%	0,35%	0,00%	2,98%	0,70%	3,68%
Average	19%											14,65%	2,71%	17,36%

Figure 6.7: 2013 RFP Application of CAP & Augmentation in terms of Key Factors









6.2.5. 2010 Community hall upgrade

The matrix representing the application of CAP and augmentation in terms of key factors during 2010 Community hall upgrade refers (Table 6.5)

- Summary of total CAP & Augmentation in terms of Key Factors addressed: **15.72%**
(Table 6.5.1)

With the upgrade of the community hall in Slovo Park during 2010, it was found that all the proposed augmentations were included as part of the method of engagement. The most prominent aspects of the application were the *Documentation of Key Information* and *Plan for Implementation*, with the focus on the *base map* and *Set of Actions and related Tasks* (Figures 6.9; 6.9.1). In this process, the key factors of *Participation* and *Role of Architects* were most effectively addressed (Figure 6.10; 6.10.1).

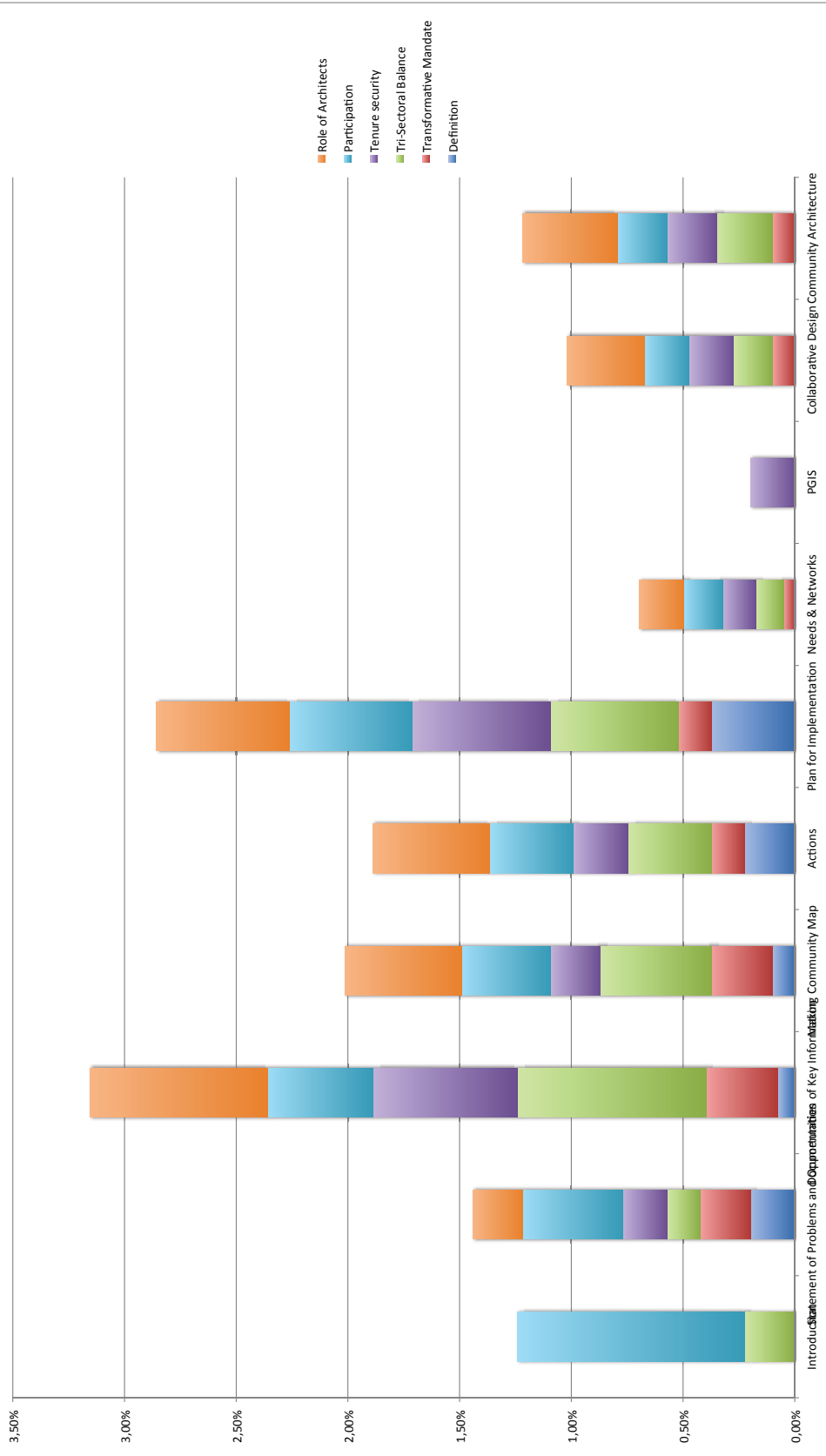
Title 6.5

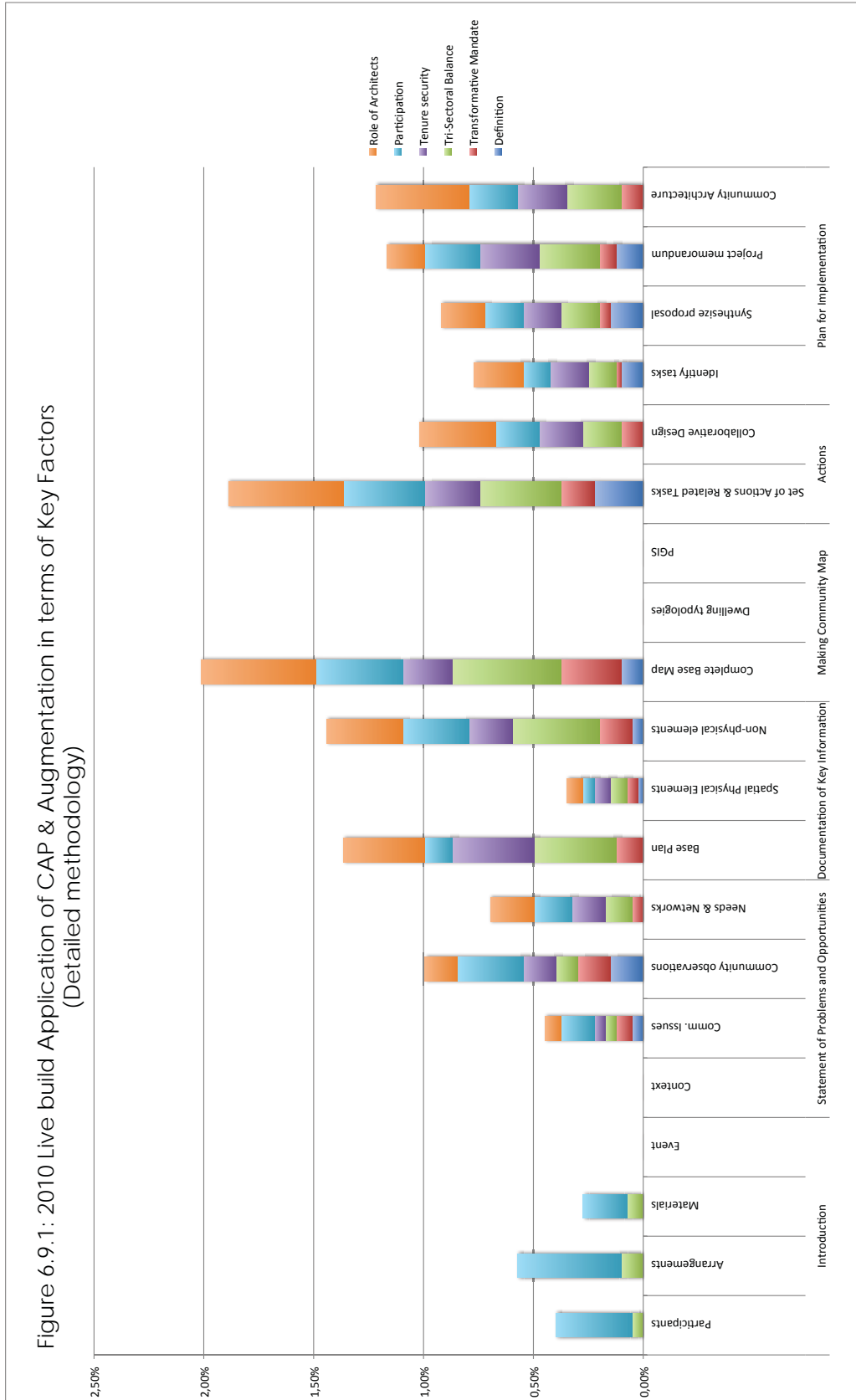
2010 Build Full Matrix: Application of CAP & Augmentation in terms of Key Factors

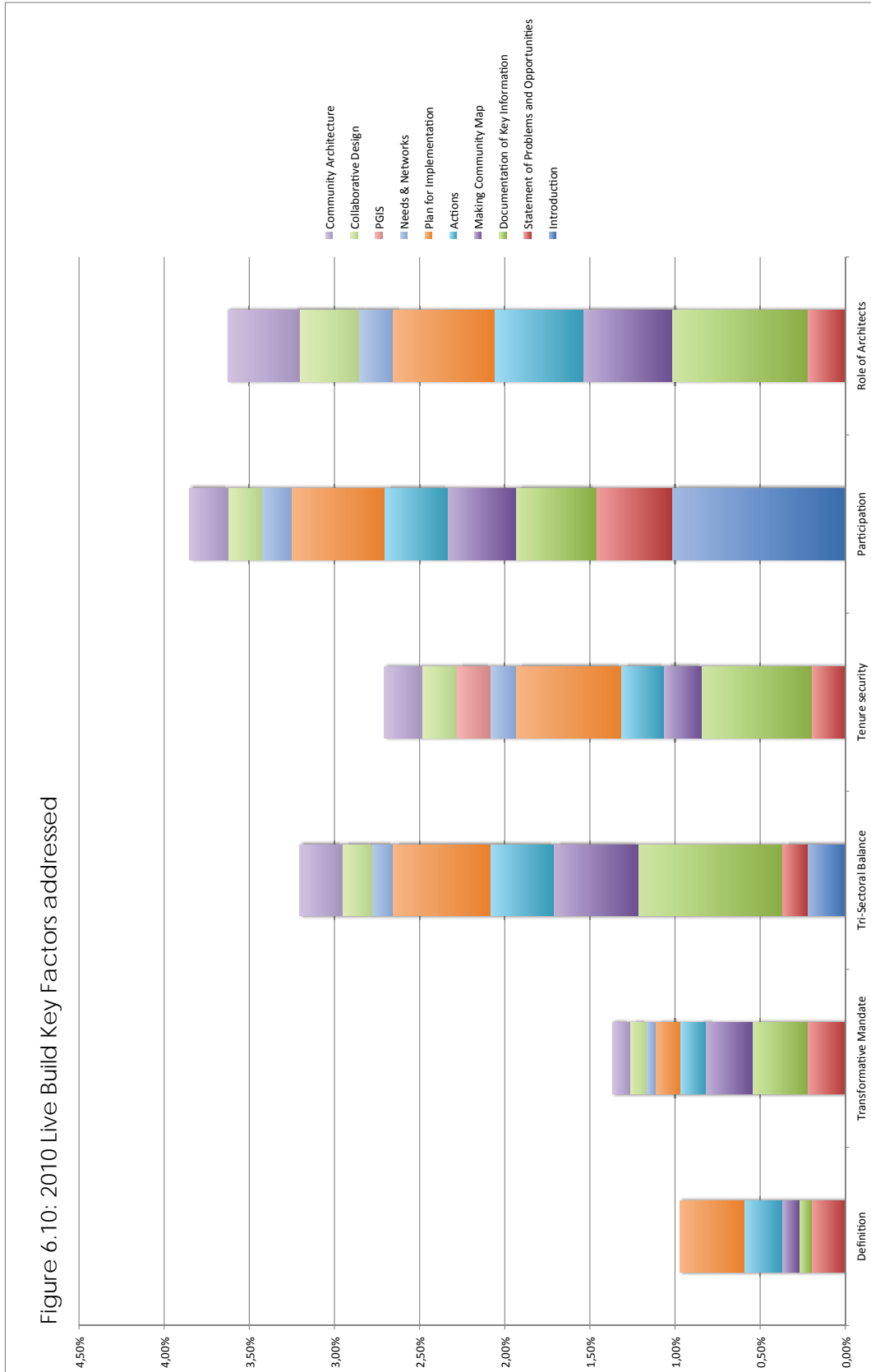
Table 6.5.1: 2010 Build Summary: Application of CAP & Augmentation in terms of Key Factors (refer to Table 6.5)

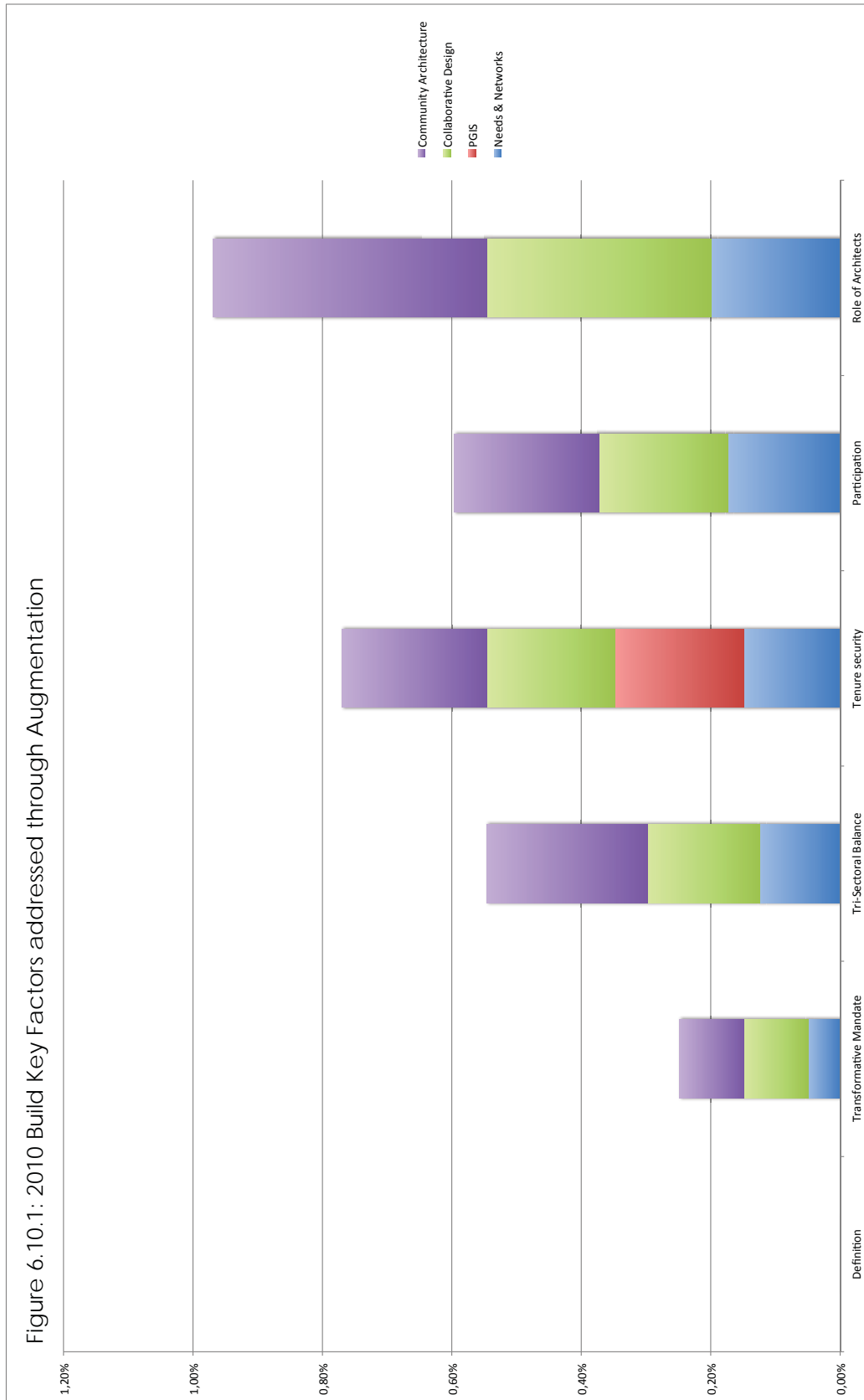
	Total CAP & Augmentation	Introduction	Statement of Problems and Opportunities	Documentation of Key Information	Making Community Map	Actions	Plan for Implementation	Needs & Networks	PGIS	Collaborative Design	Community Architecture	Total CAP	Total Augm	Total CAP & Augmentation
2010 Build														
Definition	20%	0,00%	0,20%	0,07%	0,10%	0,22%	0,37%	0,00%	0,00%	0,00%	0,00%	0,97%	0,00%	0,97%
Transformative Mandate	14%	0,00%	0,22%	0,32%	0,27%	0,15%	0,15%	0,05%	0,00%	0,10%	0,10%	1,12%	0,25%	1,37%
Tri-Sectoral Balance	16%	0,22%	0,15%	0,84%	0,50%	0,37%	0,57%	0,12%	0,00%	0,17%	0,25%	2,66%	0,55%	3,20%
Tenure security	13%	0,00%	0,20%	0,65%	0,22%	0,25%	0,62%	0,15%	0,20%	0,20%	0,22%	1,94%	0,77%	2,71%
Participation	21%	1,02%	0,45%	0,47%	0,40%	0,37%	0,55%	0,17%	0,00%	0,20%	0,22%	3,25%	0,60%	3,85%
Role of Architects	13%	0,00%	0,22%	0,79%	0,52%	0,52%	0,60%	0,20%	0,00%	0,35%	0,42%	2,66%	0,97%	3,63%
Average	16%											12,59%	3,13%	15,72%

Figure 6.9: 2010 Live Build Application of CAP & Augmentation in terms of Key Factors









6.2.6. 2012 Community hall upgrade

The matrix representing the application of CAP and augmentation in terms of key factors during 2012 community hall upgrade refers (Table 6.6)

- Summary of total CAP & Augmentation in terms of Key Factors addressed: **11,85%** (Table 6.6.1)

The augmentation measures that were applied in 2012 included *Collaborative Design* and *Community Architecture*. The method that contributed most to the application of the CAP overall was the *Plan for Implementation*, followed by *Making Community Map*, with the greatest focus on the base map, set of actions and community observations (Figures 6.11; 6.11.1). Through this second upgrade of the community hall, the key factor relating to the *Role of Architects* was most clearly addressed, followed by *Tri-Sectoral Balance* and *Participation* (Figure 6.12).

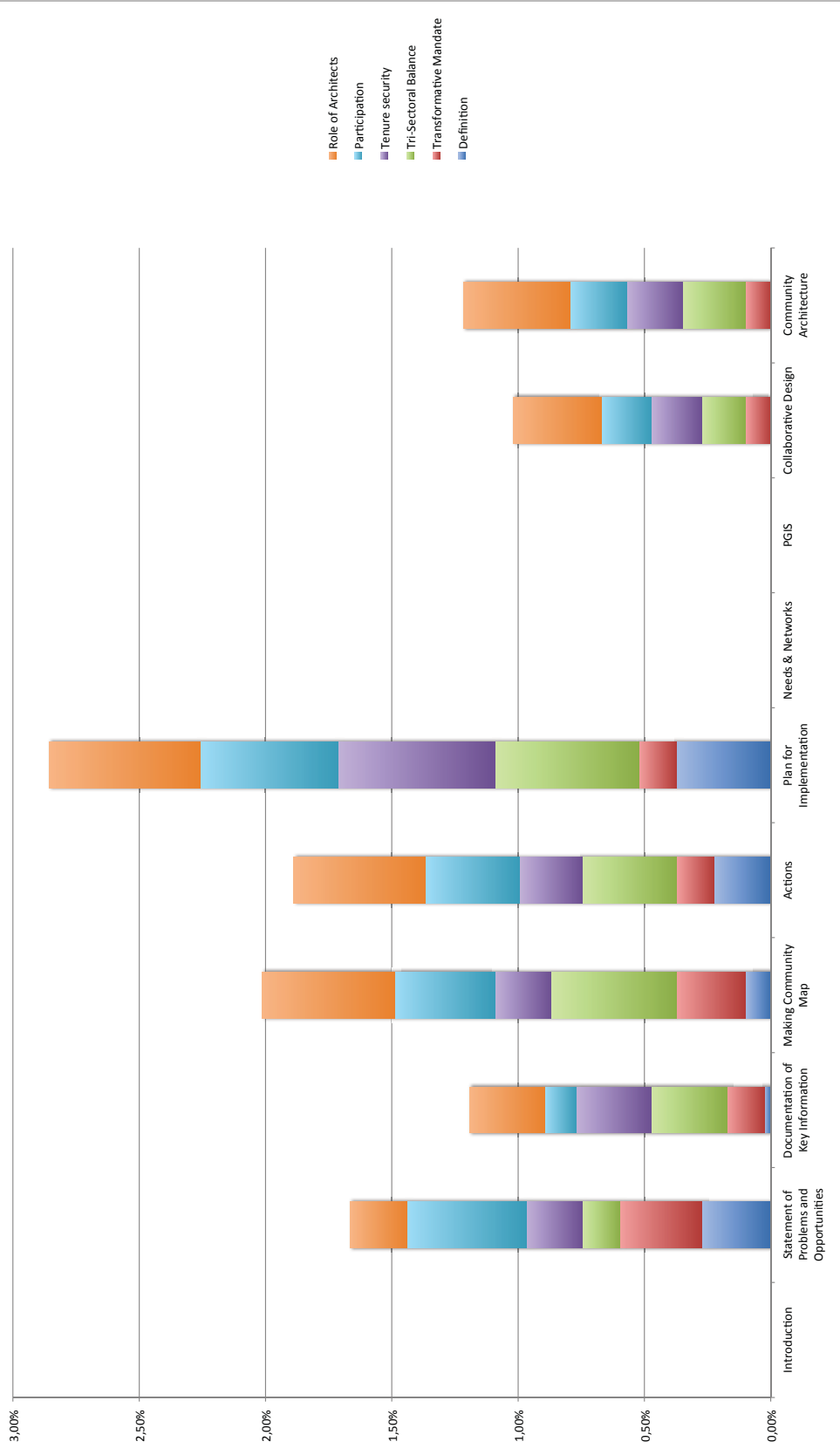
Table 6.6

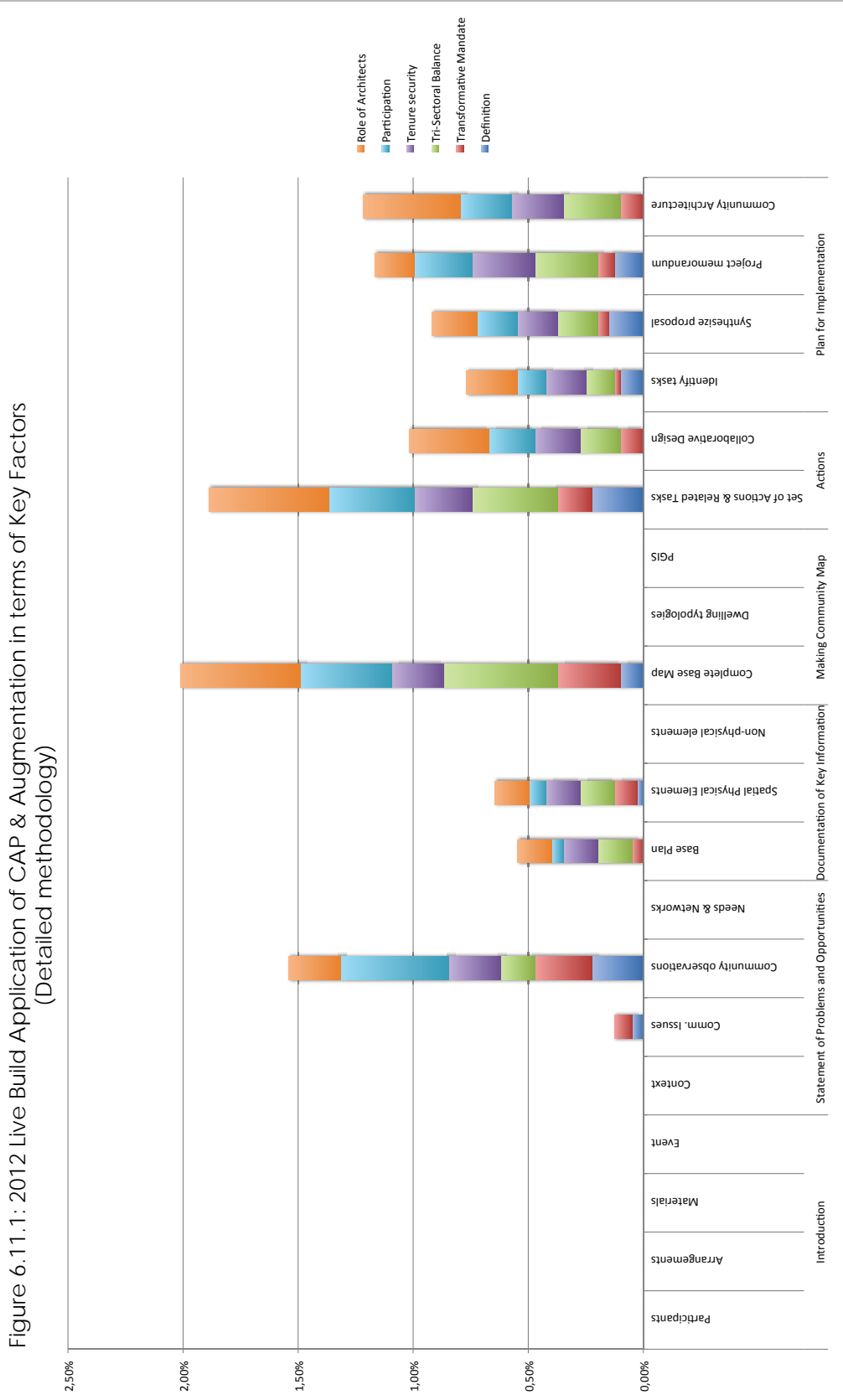
2012 Build Full Matrix: Application of CAP & Augmentation in terms of Key Factors

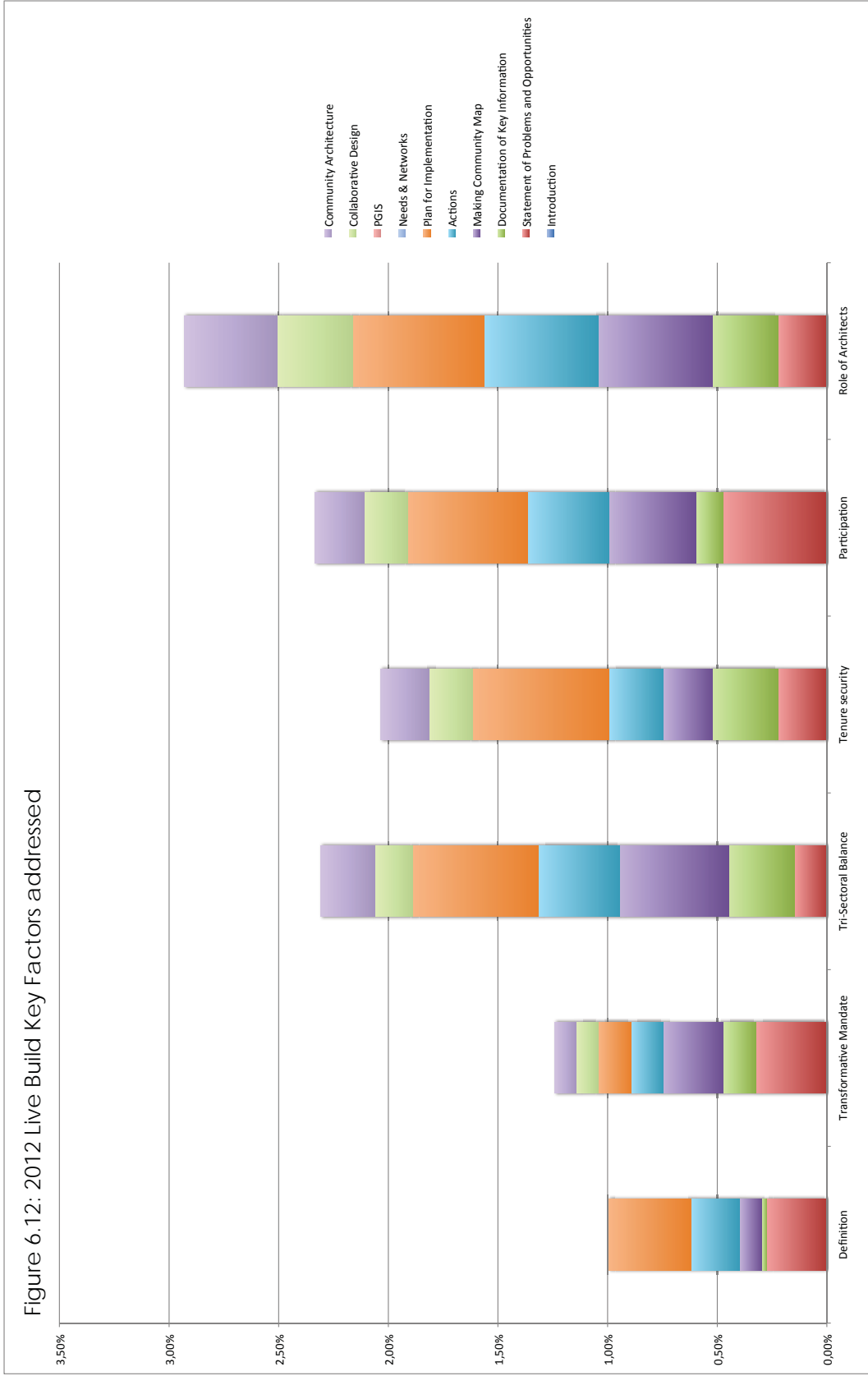
Table 6.6.1: 2012 Build Summary: Application of CAP & Augmentation in terms of Key Factors (refer to Table 6.6)

	Total CAP & Augmentation	Introduction	Statement of Problems and Opportunities	Documentation of Key Information	Making Community Map	Actions	Plan for Implementation	Needs & Networks	PGIS	Collaborative Design	Community Architecture	Total CAP	Total Augm	Total CAP & Augmentation
2012 Live Build														
Definition	20%	0,00%	0,27%	0,02%	0,10%	0,22%	0,37%	0,00%	0,00%	0,00%	0,00%	0,99%	0,00%	0,99%
Transformative Mandate	13%	0,00%	0,32%	0,15%	0,27%	0,15%	0,15%	0,00%	0,00%	0,10%	0,10%	1,04%	0,20%	1,24%
Tri-Sectoral Balance	12%	0,00%	0,15%	0,30%	0,50%	0,37%	0,57%	0,00%	0,00%	0,17%	0,25%	1,89%	0,42%	2,31%
Tenure security	10%	0,00%	0,22%	0,30%	0,22%	0,25%	0,62%	0,00%	0,00%	0,20%	0,22%	1,61%	0,42%	2,04%
Participation	13%	0,00%	0,47%	0,12%	0,40%	0,37%	0,55%	0,00%	0,00%	0,20%	0,22%	1,91%	0,42%	2,33%
Role of Architects	11%	0,00%	0,22%	0,30%	0,52%	0,52%	0,60%	0,00%	0,00%	0,35%	0,42%	2,16%	0,77%	2,93%
Average	13%											9,61%	2,24%	11,85%

Figure 6.11: 2012 Live Build Application of CAP & Augmentation in terms of Key Factors







6.2.7. 2010 Combination between RFP and community hall upgrade

The matrix representing the application of CAP and augmentation in terms of key factors during 2010 RFP combined with the community hall upgrade refers (Table 6.7)

- Summary of total CAP & Augmentation in terms of Key Factors addressed: **18,68%** (Table 6.7.1)

Although the RFP module and the community hall upgrade have been viewed separately, the upgrade followed on the engagement undertaken in the RFP module, thereby establishing a combined application of CAP methodology, which has been included as part of the evaluation. From this combined evaluation, it is apparent that the only augmentation measure not included into the process was the proposed *PGIS*. Despite this exclusion, *Making Community Map* and *Documentation of Key information* proved to be the most prominent methods applied, followed by the *Plan for Implementation*, with the greatest focus on the complete base map, the documentation of dwelling typologies and set of actions and related tasks (Figures 6.13; 6.13.1). The key factors that were addressed most positively were *Participation*, *Role of Architects* and *Tri-sectoral balance* (Figure 6.14).

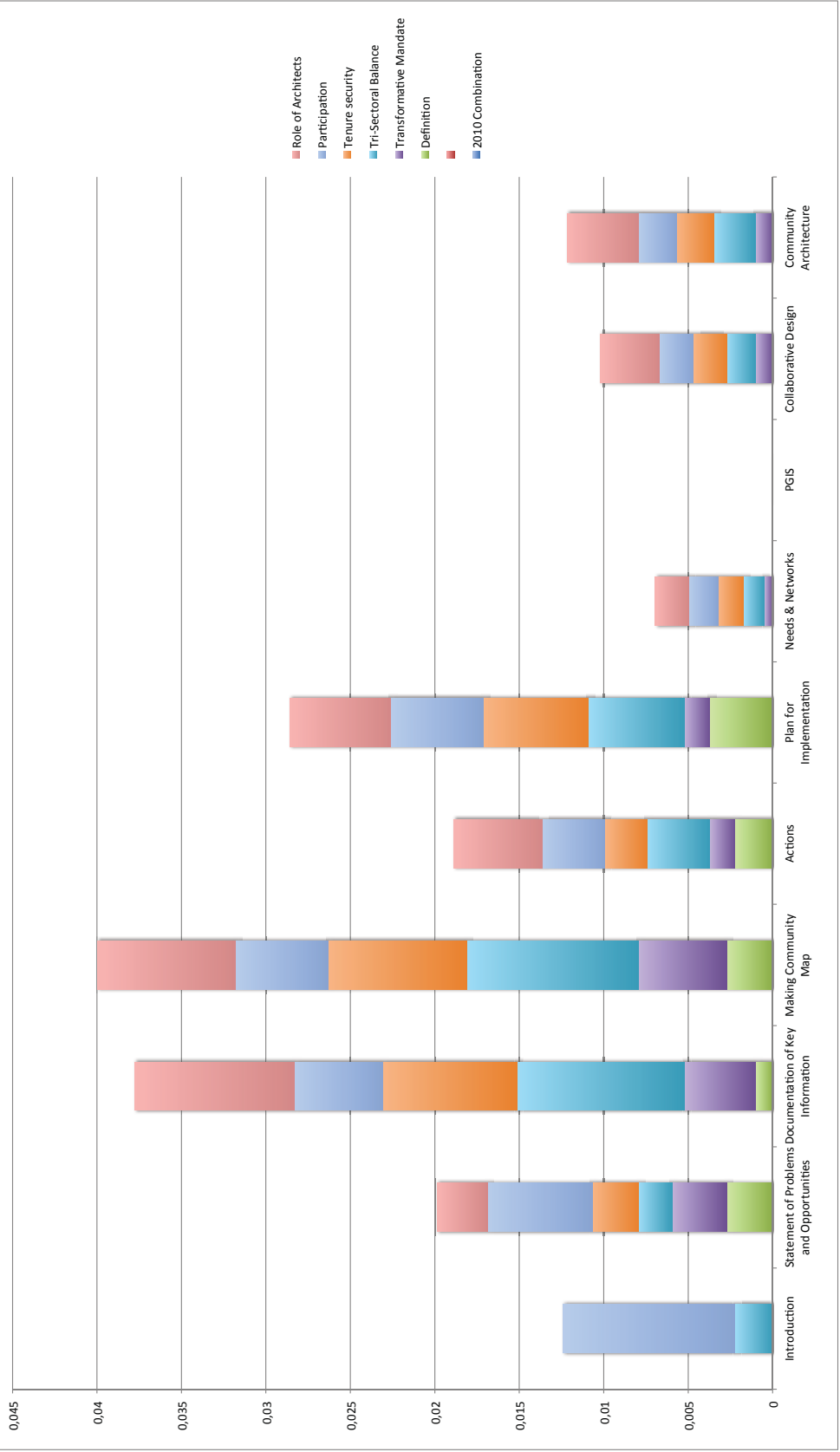
Table 6.7

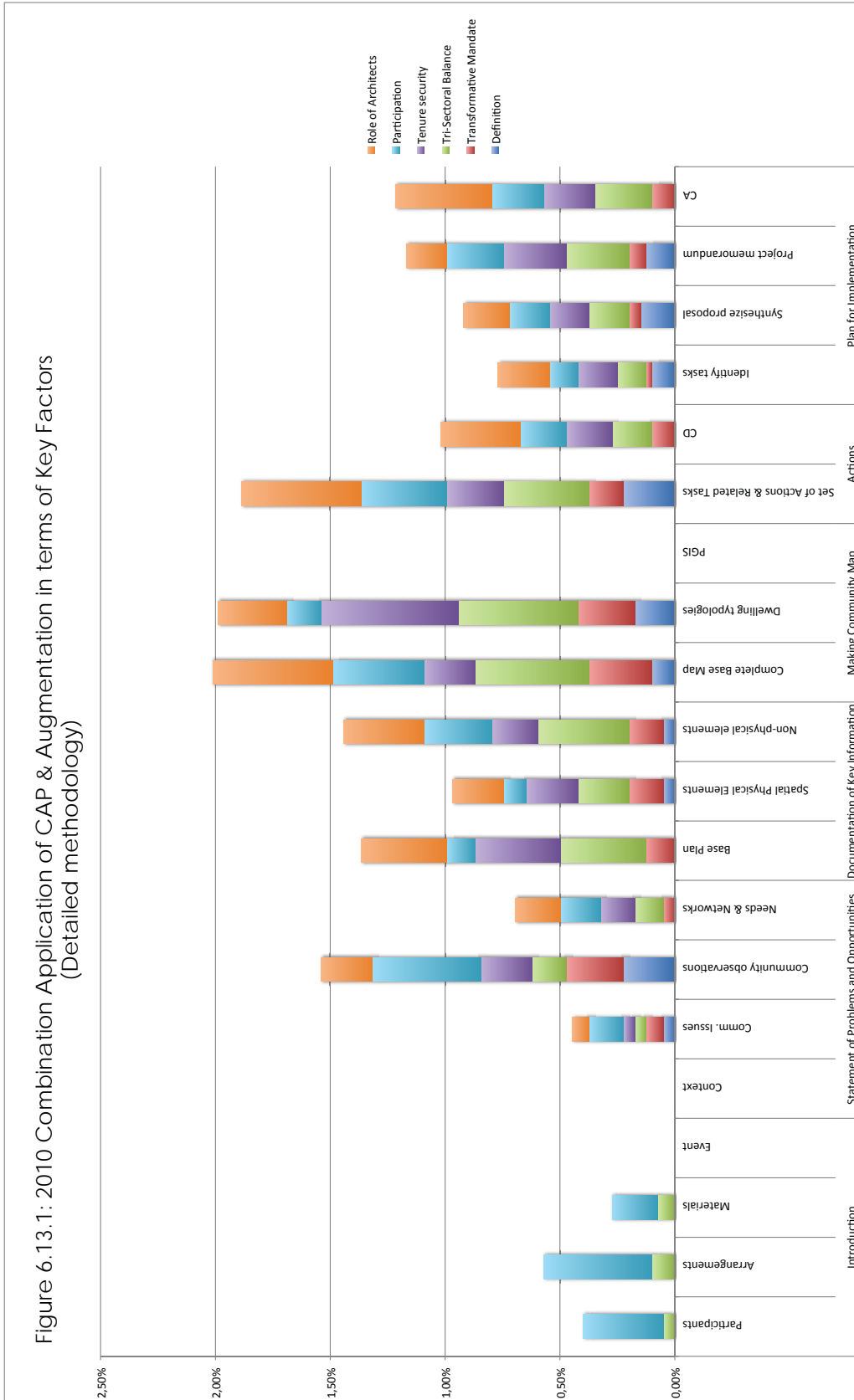
2010 Combination Full Matrix: Application of CAP & Augmentation in terms of Key Factors

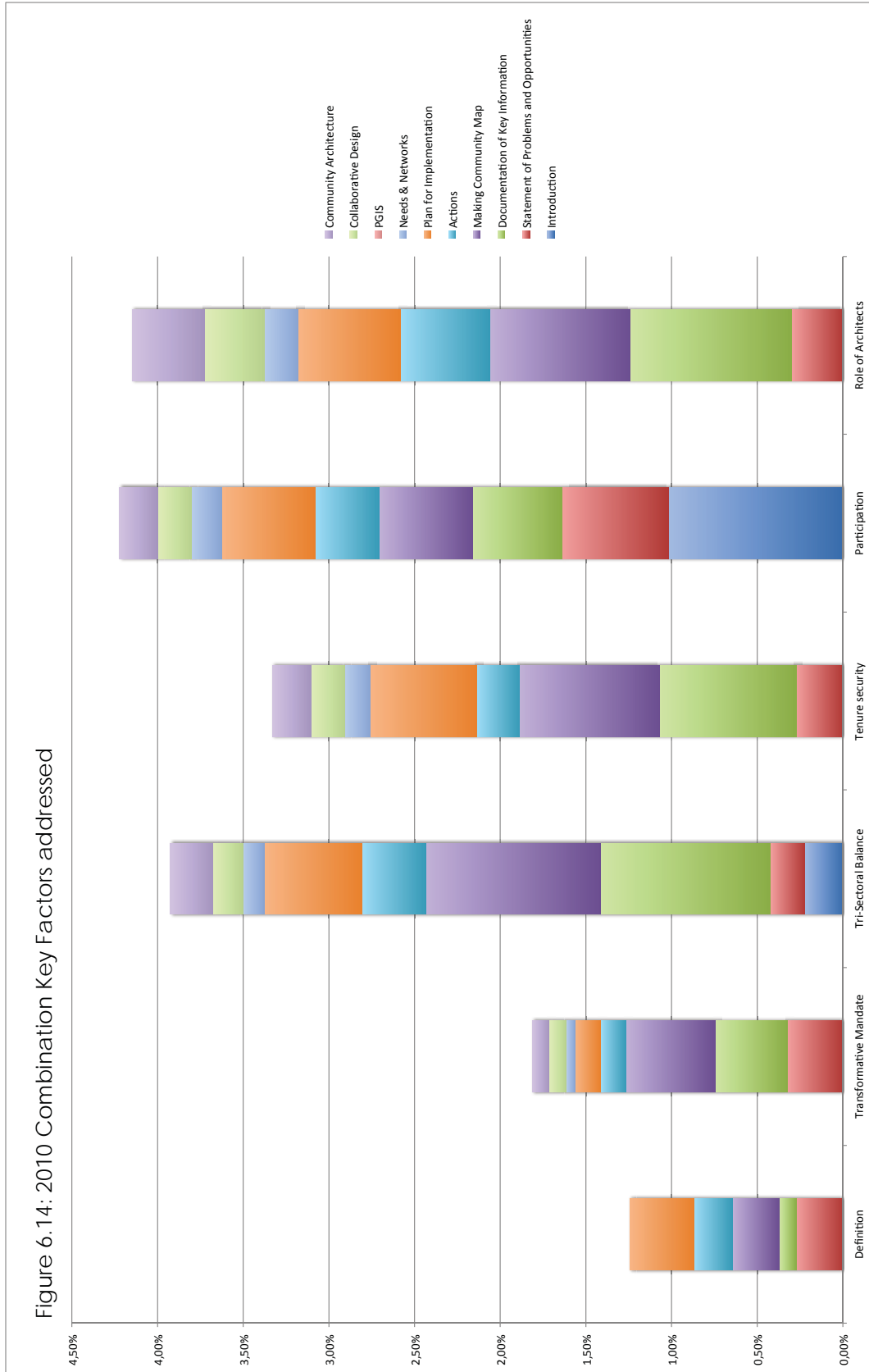
Table 6.7.1: 2010 Combo Summary: Application of CAP & Augmentation in terms of Key Factors (refer to Table 6.7)

	Total CAP & Augmentation	Introduction	Statement of Problems and Opportunities	Documentation of Key Information	Making Community Map	Actions	Plan for Implementation	Needs & Networks	PGIS	Collaborative Design	Community Architecture	Total CAP	Total Augm	Total CAP & Augmentation
2010 Combination														
Definition	18%	0,00%	0,27%	0,10%	0,27%	0,22%	0,37%	0,00%	0,00%	0,00%	0,00%	1,24%	0,00%	1,24%
Transformative Mandate	18%	0,00%	0,32%	0,42%	0,52%	0,15%	0,15%	0,05%	0,00%	0,10%	0,10%	1,56%	0,25%	1,81%
Tri-Sectoral Balance	19%	0,22%	0,20%	0,99%	1,02%	0,37%	0,57%	0,12%	0,00%	0,17%	0,25%	3,38%	0,55%	3,92%
Tenure security	17%	0,00%	0,27%	0,79%	0,82%	0,25%	0,62%	0,15%	0,00%	0,20%	0,22%	2,76%	0,57%	3,33%
Participation	20%	1,02%	0,62%	0,52%	0,55%	0,37%	0,55%	0,17%	0,00%	0,20%	0,22%	3,63%	0,60%	4,22%
Role of Architects	15%	0,00%	0,30%	0,94%	0,82%	0,52%	0,60%	0,20%	0,00%	0,35%	0,42%	3,18%	0,97%	4,15%
Average	18%											15,75%	2,93%	18,68%

Figure 6.13: 2010 Combination Application of CAP & Augmentation in terms of Key Factors







6.2.8. 2012 Combination between RFP and community hall upgrade

The matrix representing the application of CAP and augmentation in terms of key factors during 2012 RFP combined with the community hall upgrade refers (Table 6.8)

- Summary of total CAP & Augmentation in terms of Key Factors addressed: **17,04%** (Table 6.8.1)

By undertaking a similar evaluation of the 2012 iteration as a combination of the RFP module and the subsequent second upgrade of the community hall, it could be established that the *Documentation of Key Information* and *Plan for implementation* were the most salient methods applied. Of the proposed augmentation, only *PGIS* was not included as part of the application method. Seen in greater detail, the base map and set of actions and related tasks were used to greatest effect in addressing the key factors towards mitigation of architectural marginality (Figures 6.15; 6.15.1). Through this application of CAP and the augmentation measures, the key factors of *Participation* and *Role of Architects* could be most clearly addressed, followed by the *Tri-Sectoral Balance* (Figure 6.16).

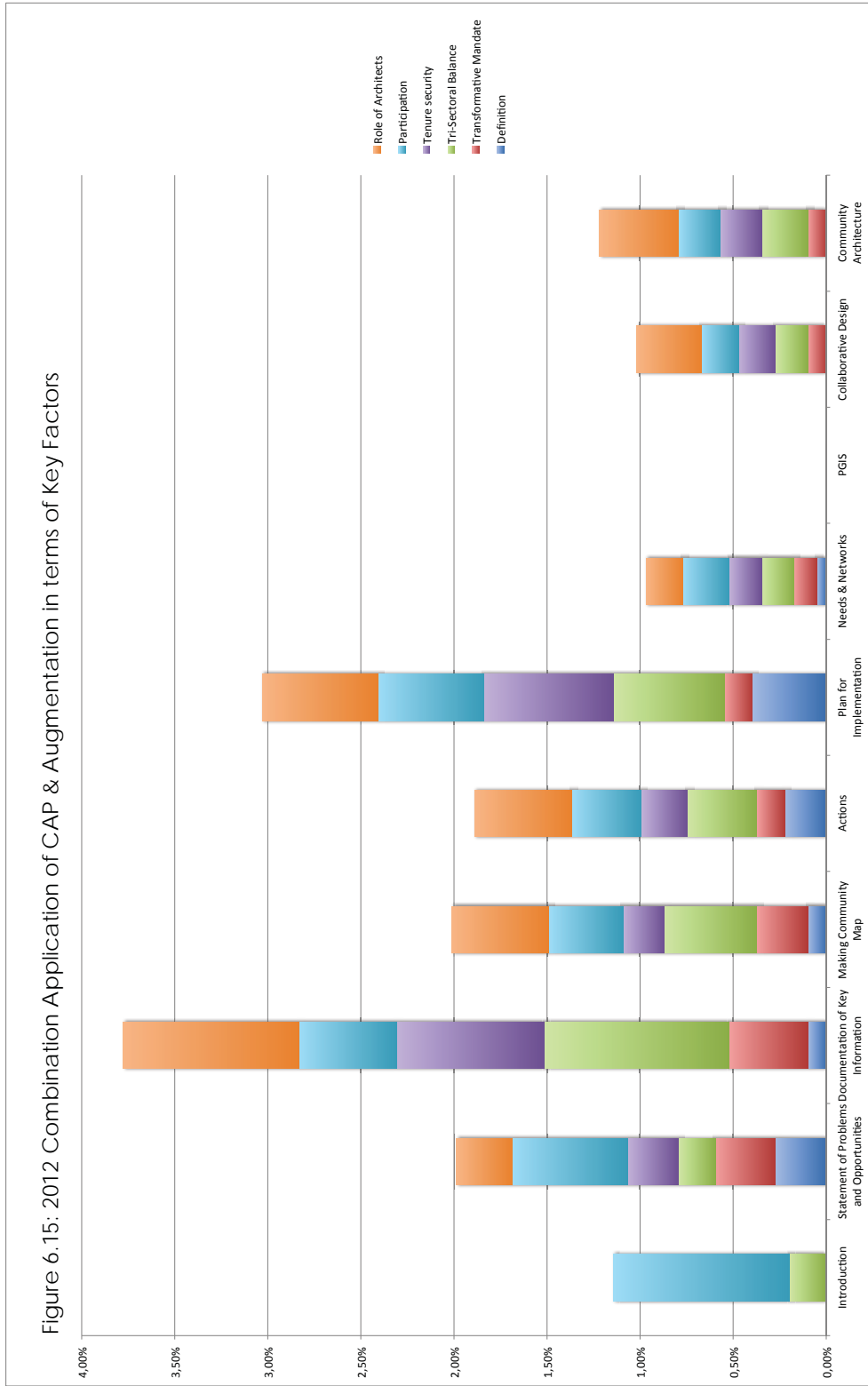
Table 6.8

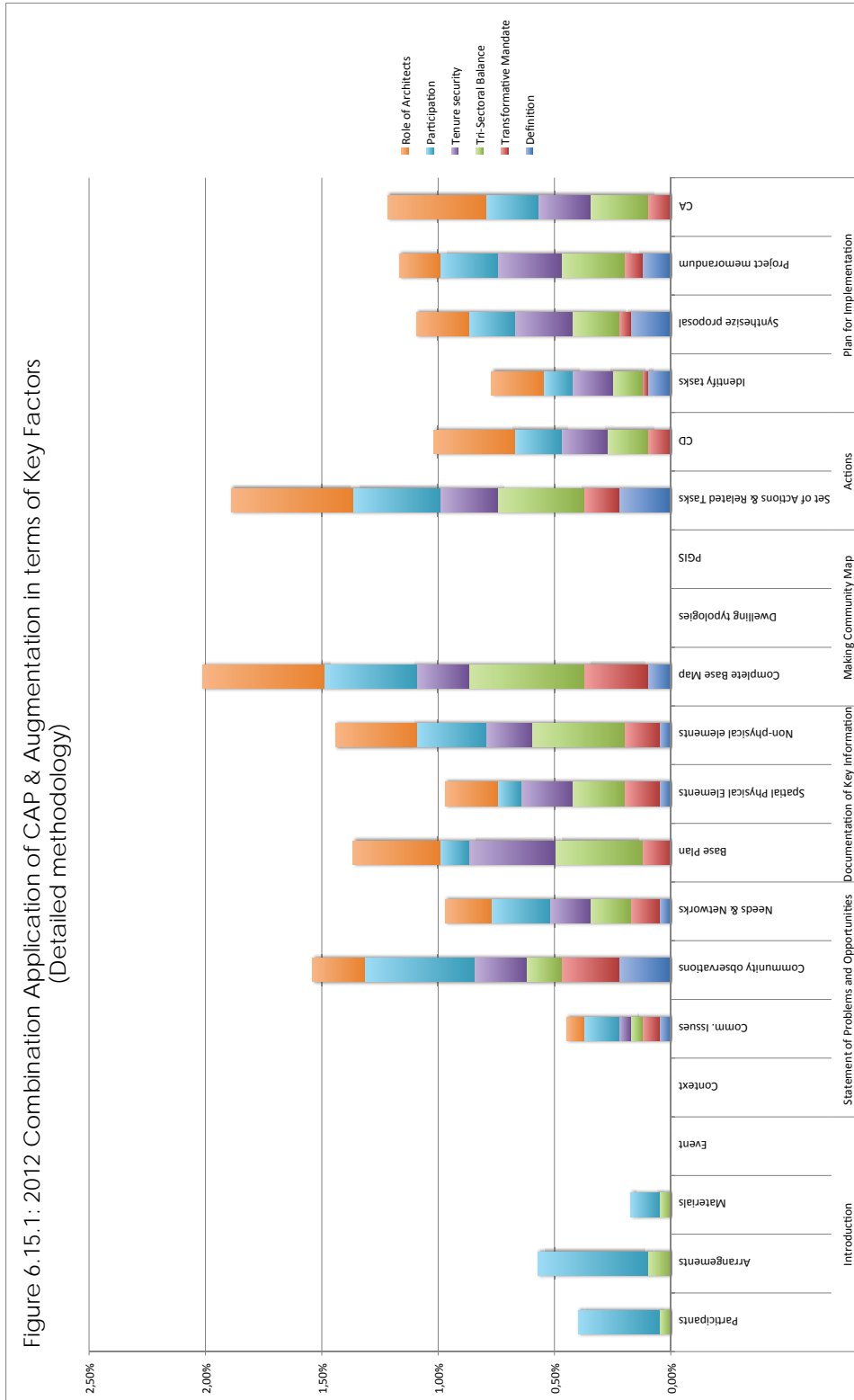
2012 Combination Full Matrix: Application of CAP & Augmentation in terms of Key Factors

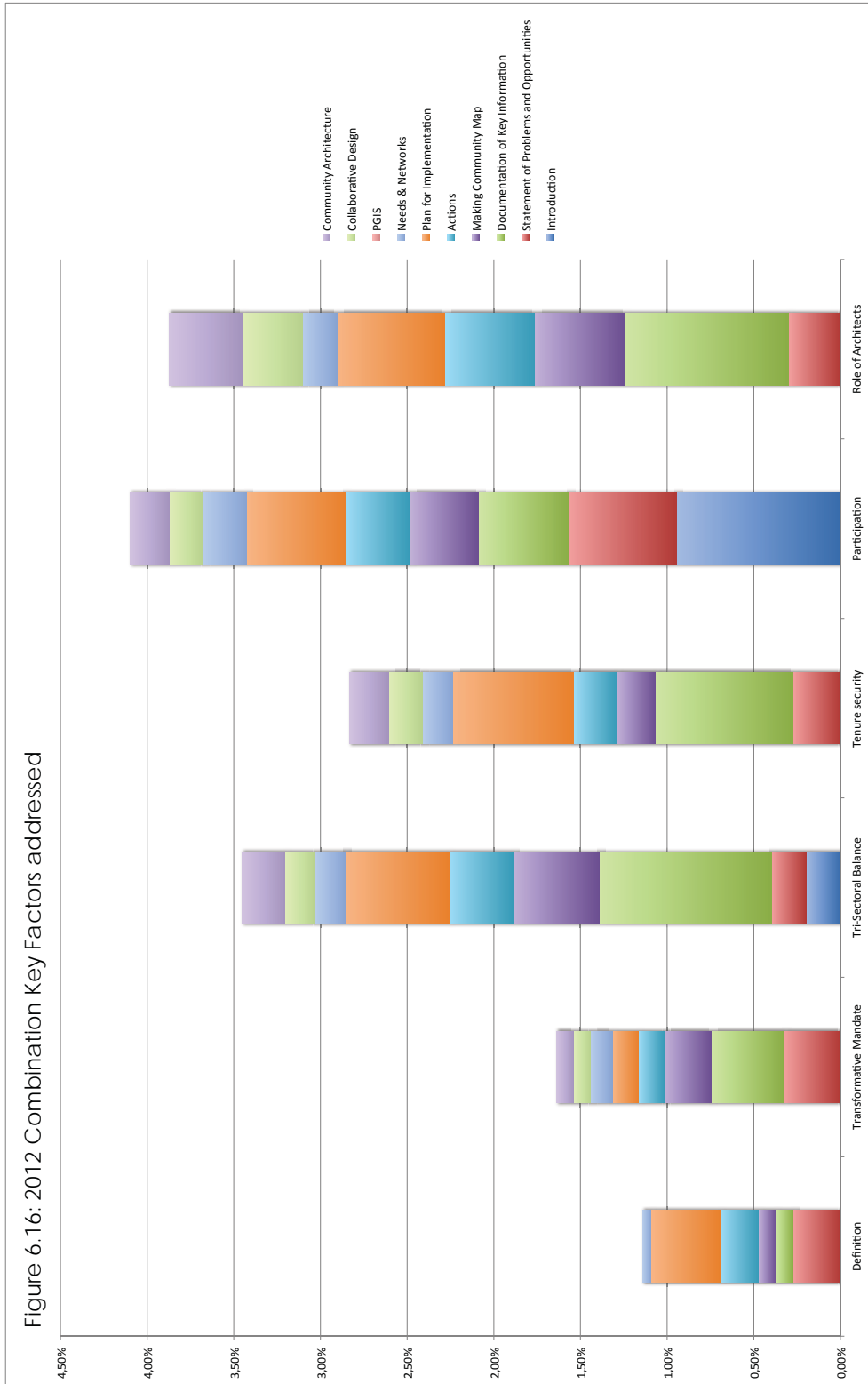
Table 6.8.1:
2012 Combo Summary: Application of CAP & Augmentation in terms of Key Factors (refer to Table 6.8)

	Total CAP & Augmentation	Introduction	Statement of Problems and Opportunities	Documentation of Key Information	Making Community Map	Actions	Plan for Implementation	Needs & Networks	PGIS	Collaborative Design	Community Architecture	Total CAP	Total Augm	Total CAP & Augmentation
2012 Combination														
Definition	16%	0,00%	0,27%	0,10%	0,10%	0,22%	0,40%	0,05%	0,00%	0,00%	0,00%	1,09%	0,05%	1,14%
Transformative Mandate	17%	0,00%	0,32%	0,42%	0,27%	0,15%	0,15%	0,12%	0,00%	0,10%	0,10%	1,32%	0,32%	1,64%
Tri-Sectoral Balance	17%	0,20%	0,20%	0,99%	0,50%	0,37%	0,60%	0,17%	0,00%	0,17%	0,25%	2,86%	0,60%	3,45%
Tenure security	14%	0,00%	0,27%	0,79%	0,22%	0,25%	0,70%	0,17%	0,00%	0,20%	0,22%	2,24%	0,60%	2,83%
Participation	19%	0,94%	0,62%	0,52%	0,40%	0,37%	0,57%	0,25%	0,00%	0,20%	0,22%	3,43%	0,67%	4,10%
Role of Architects	14%	0,00%	0,30%	0,94%	0,52%	0,52%	0,62%	0,20%	0,00%	0,35%	0,42%	2,91%	0,97%	3,87%
Average	16%											13,84%	3,20%	17,04%

Figure 6.15: 2012 Combination Application of CAP & Augmentation in terms of Key Factors







6.2.9. 2011 Workshop Series

The matrix representing the application of CAP and augmentation in terms of key factors during 2011 workshop series refers (Table 6.9)

- Summary of total CAP & Augmentation in terms of Key Factors addressed: **5,79%** (Table 6.9.1)

The workshop series conducted in Slovo Park during 2011 is included as part of the evaluation due to the investigation of augmentation measures proposed in this study that could not be investigated comprehensively within the structure of the RFP modules. The CAP workshop format was adhered to, after which a needs analysis was undertaken by making use of the *Human Scale Development Matrix* and exercises related to documenting the *Image of Home*. In terms of addressing the key factors emanating from this study, the *Statement of Problems and Opportunities* effectively became the primary vehicle of engagement due to its inclusion of the needs analysis method (Figures 6.17; 6.17.1). In this instance, the key factor of *Participation* was most significantly addressed (Figure 6.18).

Table 6.9

2011 Workshops Full Matrix: Application of CAP & Augmentation in terms of Key Factors

Table 6.9.1: 2011 Workshops Summary: Application of CAP & Augmentation in terms of Key Factors (refer to Table 6.9)

	Total CAP & Augmentation	Introduction	Statement of Problems and Opportunities	Documentation of Key Information	Making Community Map	Actions	Plan for Implementation	Needs & Networks	PGIS	Collaborative Design	Community Architecture	Total CAP	Total Augm	Total CAP & Augmentation
2011 Workshop Series														
Definition	8%	0,00%	0,35%	0,00%	0,00%	0,00%	0,00%	0,05%	0,00%	0,00%	0,00%	0,35%	0,05%	0,40%
Transformative Mandate	5%	0,00%	0,40%	0,00%	0,00%	0,00%	0,00%	0,12%	0,00%	0,00%	0,00%	0,40%	0,12%	0,52%
Tri-Sectoral Balance	4%	0,37%	0,20%	0,00%	0,00%	0,00%	0,00%	0,22%	0,00%	0,00%	0,00%	0,57%	0,22%	0,79%
Tenure security	4%	0,00%	0,45%	0,00%	0,00%	0,00%	0,00%	0,32%	0,00%	0,00%	0,00%	0,45%	0,32%	0,77%
Participation	14%	1,22%	0,89%	0,00%	0,00%	0,00%	0,00%	0,40%	0,00%	0,00%	0,00%	2,11%	0,40%	2,51%
Role of Architects	3%	0,00%	0,30%	0,00%	0,00%	0,00%	0,00%	0,50%	0,00%	0,00%	0,00%	0,30%	0,50%	0,79%
Average	6%											4,17%	1,61%	5,79%

Figure 6.17: 2011 Workshop Series Application of CAP & Augmentation in terms of Key Factors

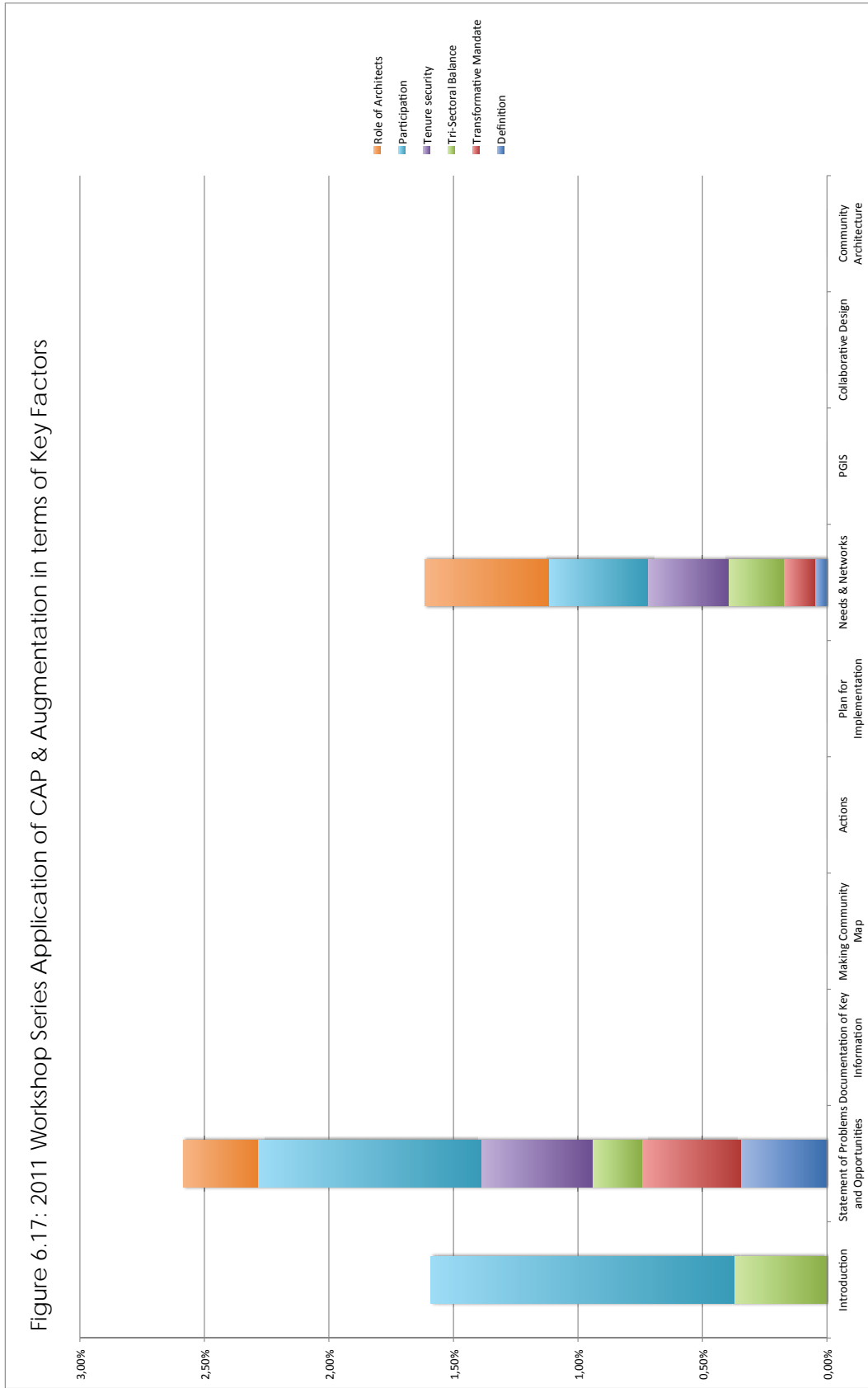


Figure 6.17.1: 2011 Workshop Series Application of CAP & Augmentation in terms of Key Factors (Detailed methodology)

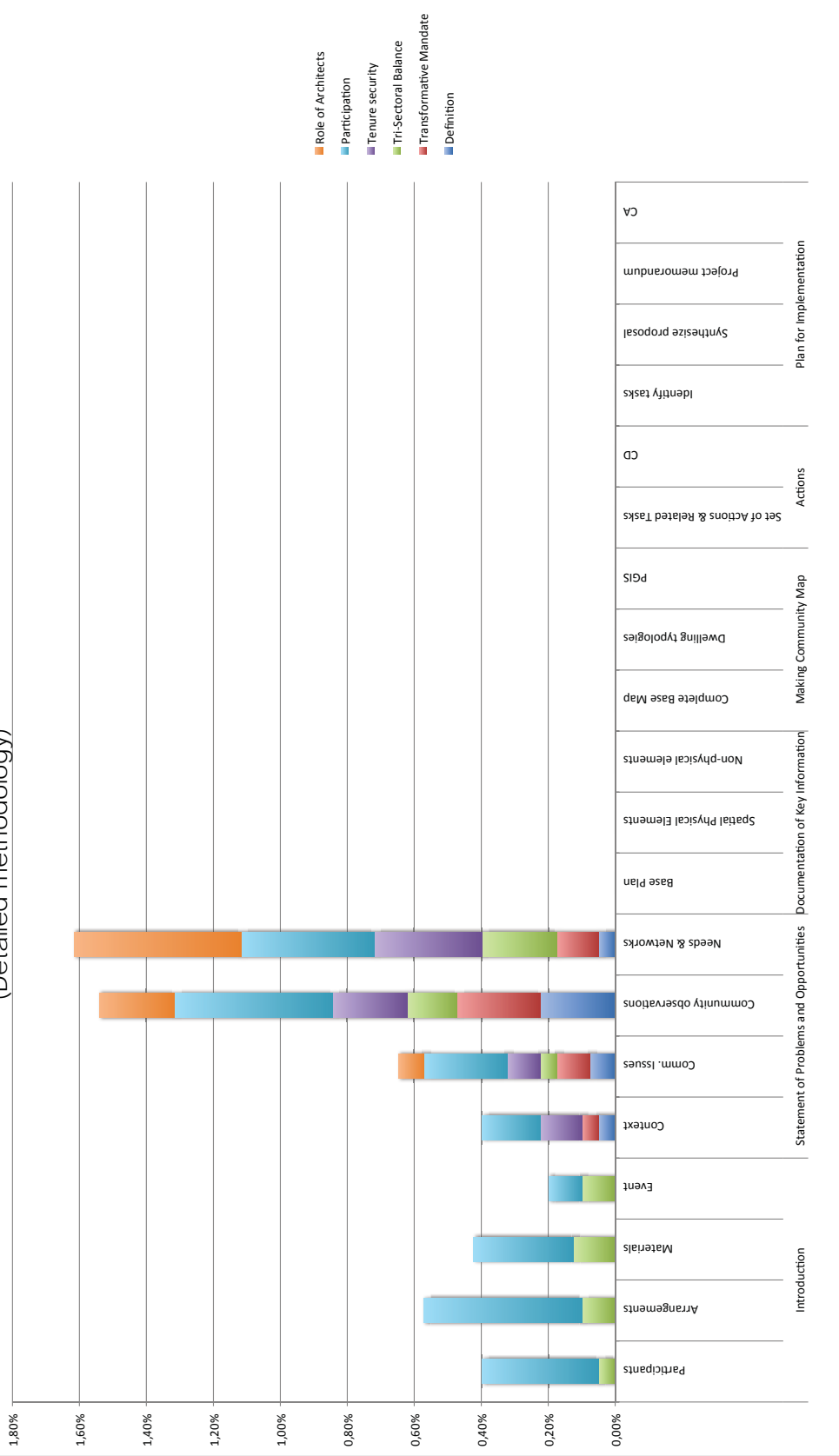
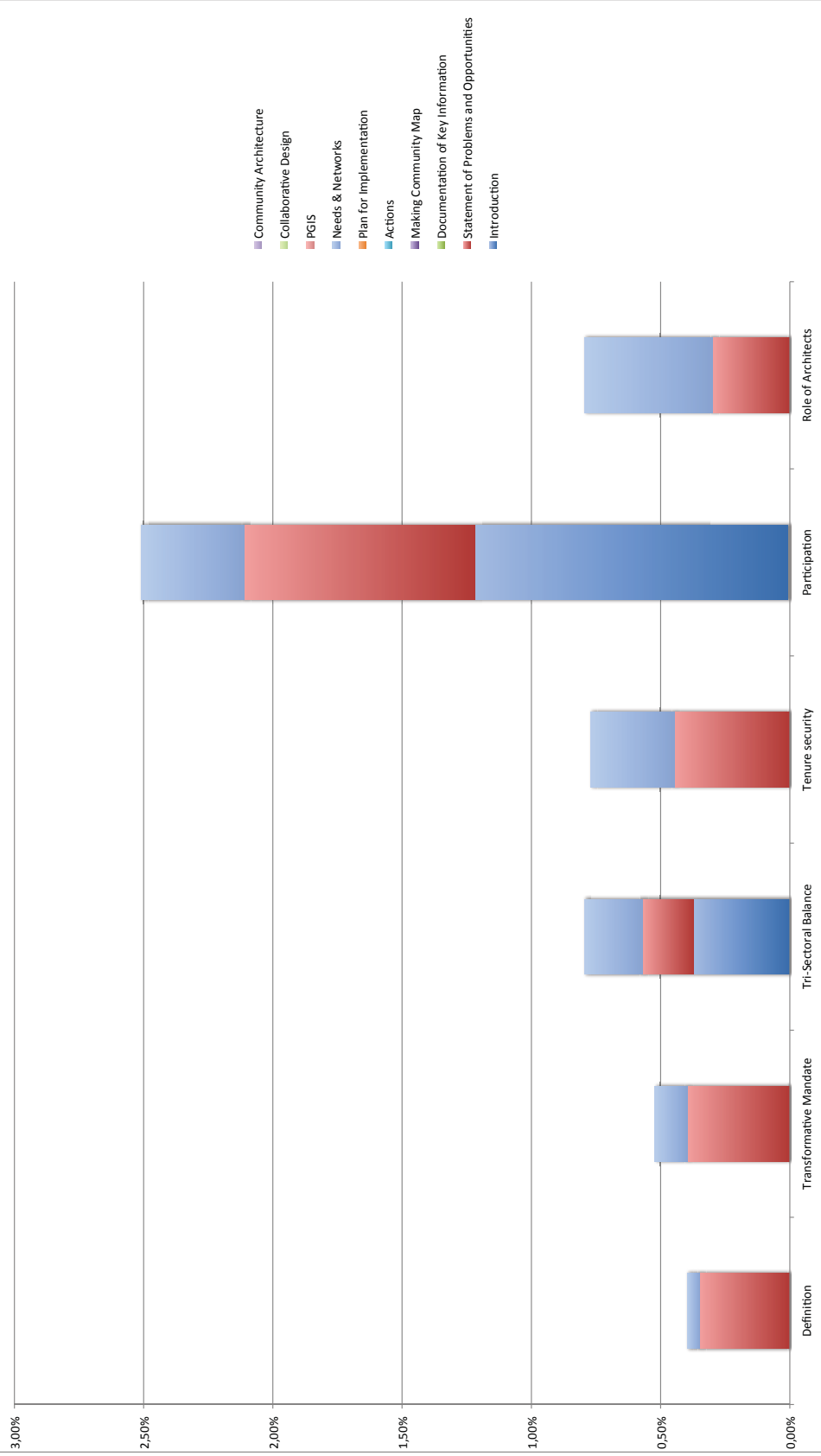


Figure 6.18: 2011 Workshop Series Key Factors addressed



6.3. Patterns of convergence in terms of CAP methodology

In viewing the overall ability of the various iterations to address the key factors contributing to marginality through the application of CAP and the proposed augmentations (Table 6.10), it has been found that the RFP module of 2013 succeeded in achieving the highest performance among the research and design modules (17,36%), falling short of the potential expected of the CAP proposal (23,03%). The combination of the RFP module and its subsequent implementation of a built project in 2010, however, achieved a higher level of satisfaction (18,68%), thus indicating the improved possibility of addressing the key factors through a layered application of CAP over an extended period of time (Figures 6.19; 6.19.1).

Table 6.10 Key Factors addressed in all iterations (proportional to CAP)

In terms of whole matrix		CAP Proposed	2010 RFP	2011 RFP	2012 RFP	2013 RFP	2010 Build	2012 Build	2011 Workshops	2010 Combo	2012 Combo
Definition	1,47%	0,67%	0,35%	1,04%	1,22%	0,97%	0,99%	0,40%	1,24%	1,14%	
Transformative Mandate	2,21%	1,14%	0,60%	1,52%	1,74%	1,37%	1,24%	0,52%	1,81%	1,64%	
Tri-Sectoral Balance	4,62%	2,04%	1,29%	3,03%	3,48%	3,20%	2,31%	0,79%	3,92%	3,45%	
Tenure security	4,27%	1,76%	1,14%	2,46%	3,08%	2,71%	2,04%	0,77%	3,33%	2,83%	
Participation	5,56%	2,01%	1,32%	3,73%	4,17%	3,85%	2,33%	2,51%	4,22%	4,10%	
Role of Architects	4,89%	1,89%	1,27%	3,35%	3,68%	3,63%	2,93%	0,79%	4,15%	3,87%	
Total	23,03%	9,51%	5,96%	15,13%	17,36%	15,72%	11,85%	5,79%	18,68%	17,04%	

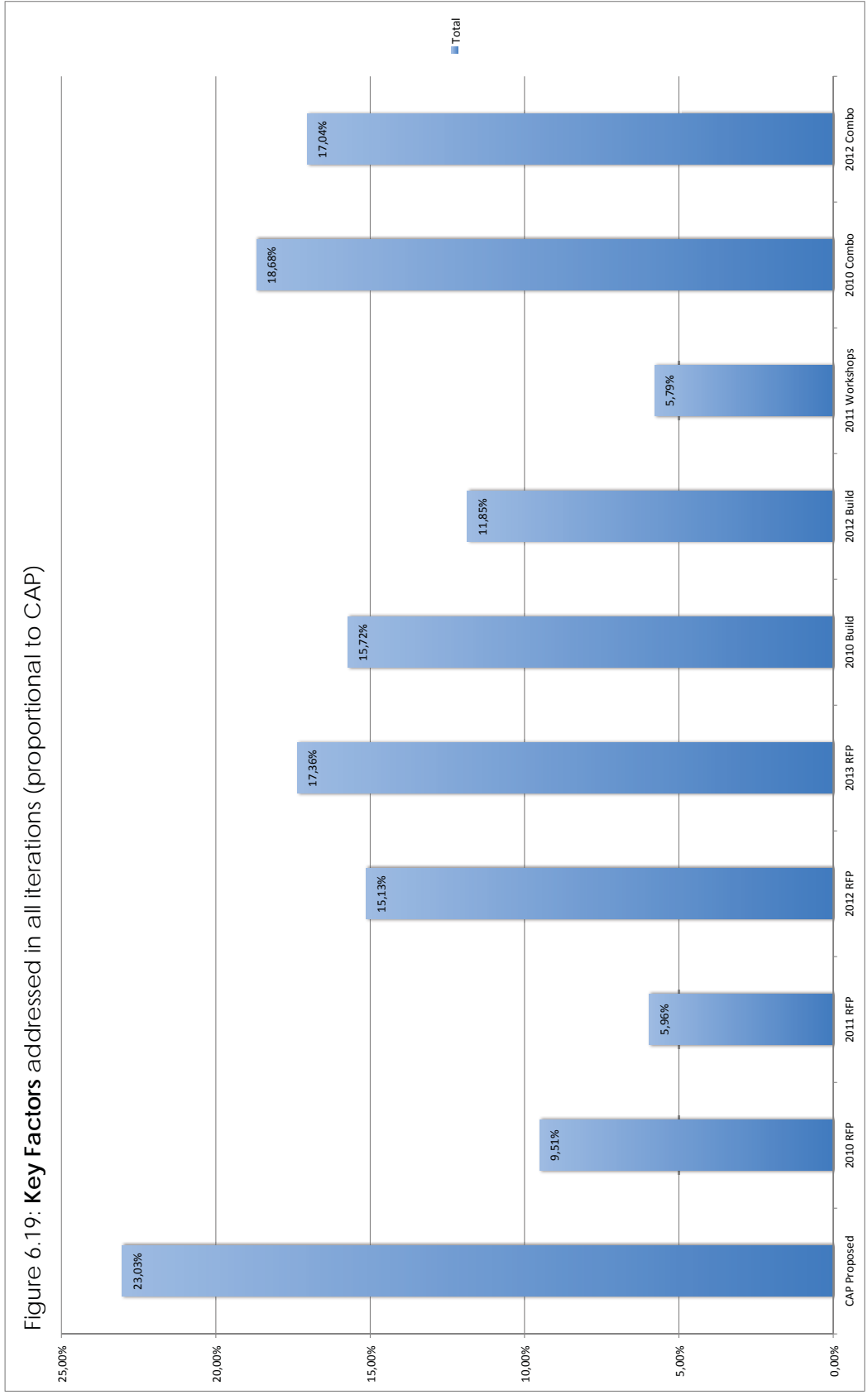
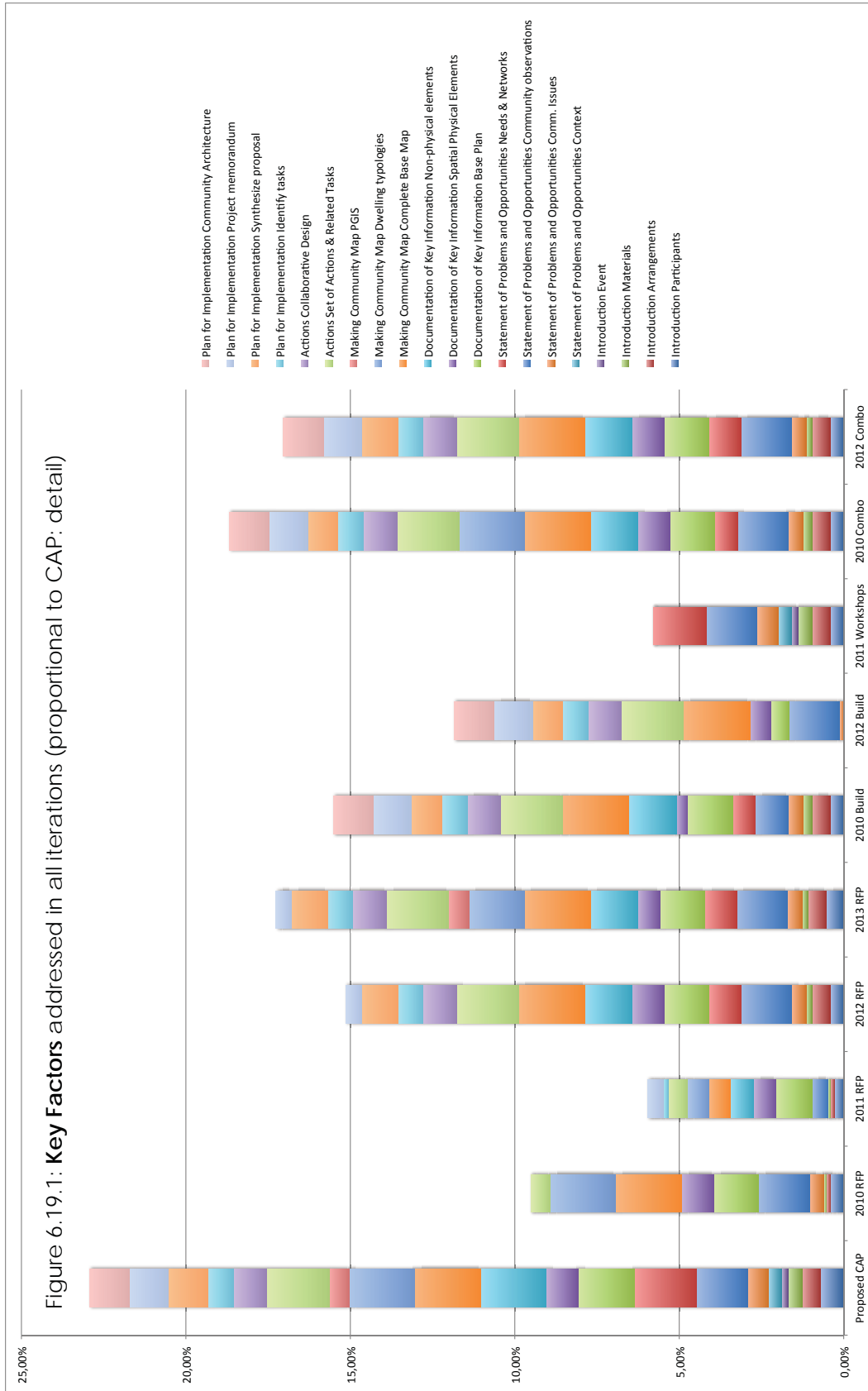


Figure 6.19: Key Factors addressed in all iterations (proportional to CAP)



Over the extent of the study period and the various iterations, it can be attested that the most significant aspect of the CAP in terms of addressing the key factors lies in *Documentation of Key Information*, followed by the *Making Community Map*. On average, the *Plan for Implementation* contributed significantly in the live build projects (Table 6.11; Figure 6.20). In closer consideration of the components of the CAP methodology, the following detailed observations were made (Table 6.12; Figure 6.21):

- *Introduction:*
 - Arrangements for introduction between members of the community and external participants make the most important contribution, with issues pertaining to the proposed workshop event not having been very significant (Figure 6.21.1).
- *Statement of Problems and Opportunities:*
 - Community observations are the most important and have been implemented consistently in all the iterations (Figure 6.21.2).
- *Documentation of Key Information:*
 - The base plan as well as documentation of non-physical elements appears to have made the greatest contribution to addressing the key factors. There is considerable consistency in these applications (Figure 6.21.3).
- *Making Community Map:*
 - Completing the base map was consistently applied to the full potential of CAP, except for the 2011 RFP iteration. This suggests that it constitutes an important and reliable aspect of the engagement process in order to address the key factors (Figure 6.21.4).
- *Set of Actions and Related Tasks:*
 - Collaborative design is seen to have made a contribution to this aspect of CAP, although the actual setting out of actions surpasses collaborative design significantly. There is consistency in the application of this aspect of CAP, indicating it as a reliable platform of engagement that can be replicated (Figure 6.21.5).
- *Plan for Implementation:*
 - A differentiation is noted between the RFP research and design modules and the small-scale interventions – in this case the upgrade of the community hall

in Slovo Park - where *Community Architecture* becomes relevant only in the execution of a construction project. Without such an expected outcome, the incorporation of research and planning into a synthesised action plan is the most significant aspect of this part of CAP. With the inclusion of a physical implementation, *Community Architecture* achieves the highest level of success in addressing the key factors (Figure 6.21.6).

Table 6.11 CAP methodology applied (proportional to Key Factors)

	Introduction	Statement of Problems and Opportunities	Needs & Networks	Documentation of Key Information	Making Community Map	PGIS	Set of Actions & Related Tasks	Collaborative Design	Plan for Implementation	Community Architecture
CAP & Augm proposed	1,89%	2,58%	1,89%	4,67%	4,00%	0,62%	1,89%	1,02%	3,15%	1,22%
2010 RFP	0,60%	1,99%	0,00%	2,33%	4,00%	0,00%	0,60%	0,00%	0,00%	0,00%
2011 RFP	0,47%	0,50%	0,00%	2,48%	1,29%	0,00%	0,60%	0,00%	0,62%	0,00%
2012 RFP	1,14%	1,99%	0,97%	3,78%	2,01%	0,00%	1,89%	1,02%	2,33%	0,00%
2013 RFP	1,27%	1,99%	0,97%	3,48%	3,70%	0,62%	1,89%	1,02%	2,33%	0,00%
2010 Build	0,00%	1,44%	0,70%	3,78%	2,01%	0,00%	1,89%	1,02%	2,86%	1,22%
2012 Build	0,00%	1,66%	0,00%	1,19%	2,01%	0,00%	1,89%	1,02%	2,86%	1,22%
2011 Workshops	1,59%	2,58%	1,61%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%
2010 Combo	1,24%	1,99%	0,70%	3,78%	4,00%	0,00%	1,89%	1,02%	2,86%	1,22%
2012 Combo	1,14%	1,99%	0,97%	3,78%	2,01%	0,00%	1,89%	1,02%	3,03%	1,22%
Average of RFP iterations	0,87%	1,61%	0,48%	3,02%	2,75%	0,16%	0,51%	0,51%	1,32%	0,00%
Average of Live Builds	0,00%	1,55%	0,35%	2,48%	2,01%	0,00%	1,89%	1,02%	2,86%	1,22%
Average of Combos	1,19%	1,99%	1,66%	3,78%	3,01%	0,00%	1,89%	1,02%	2,94%	1,22%

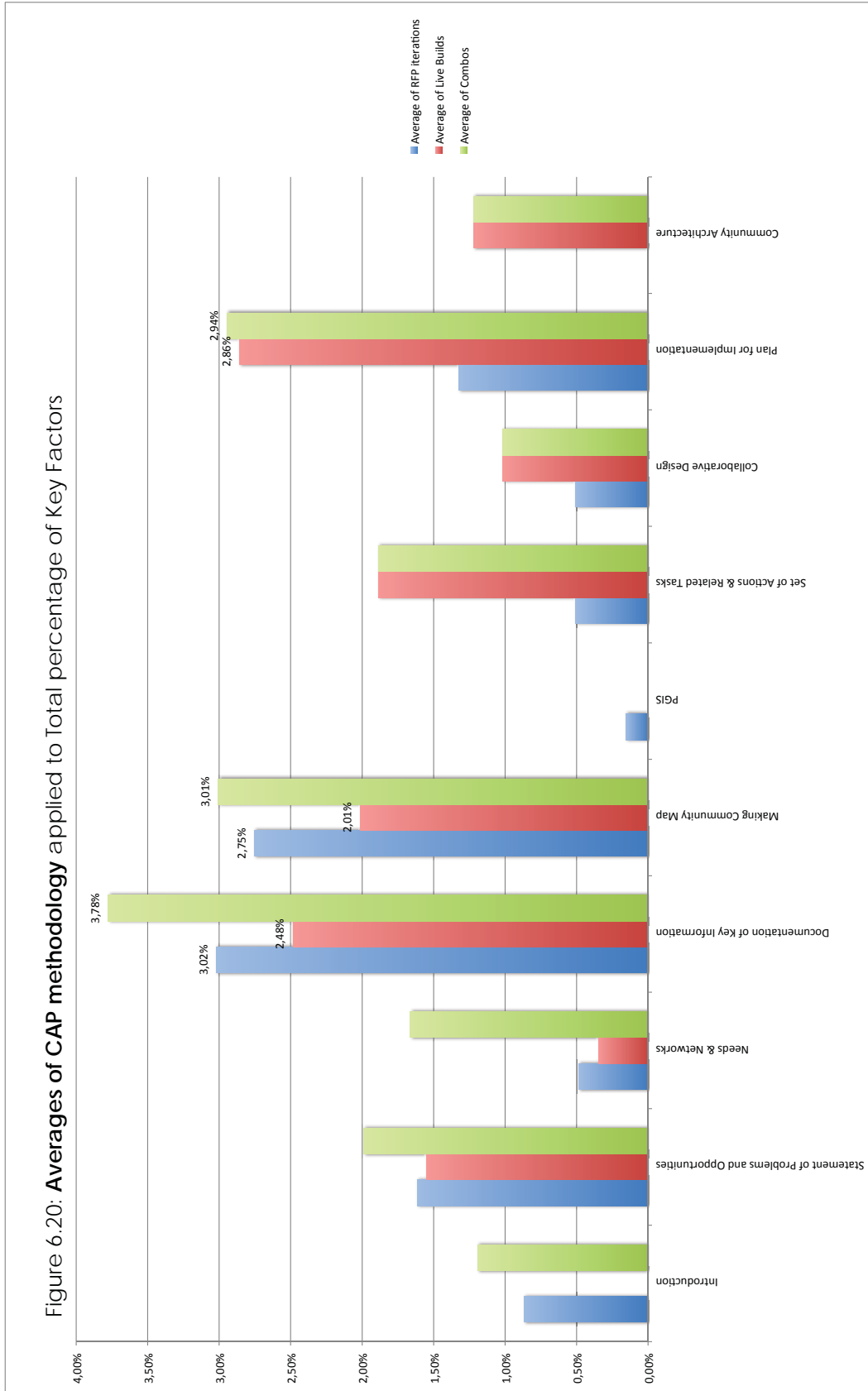
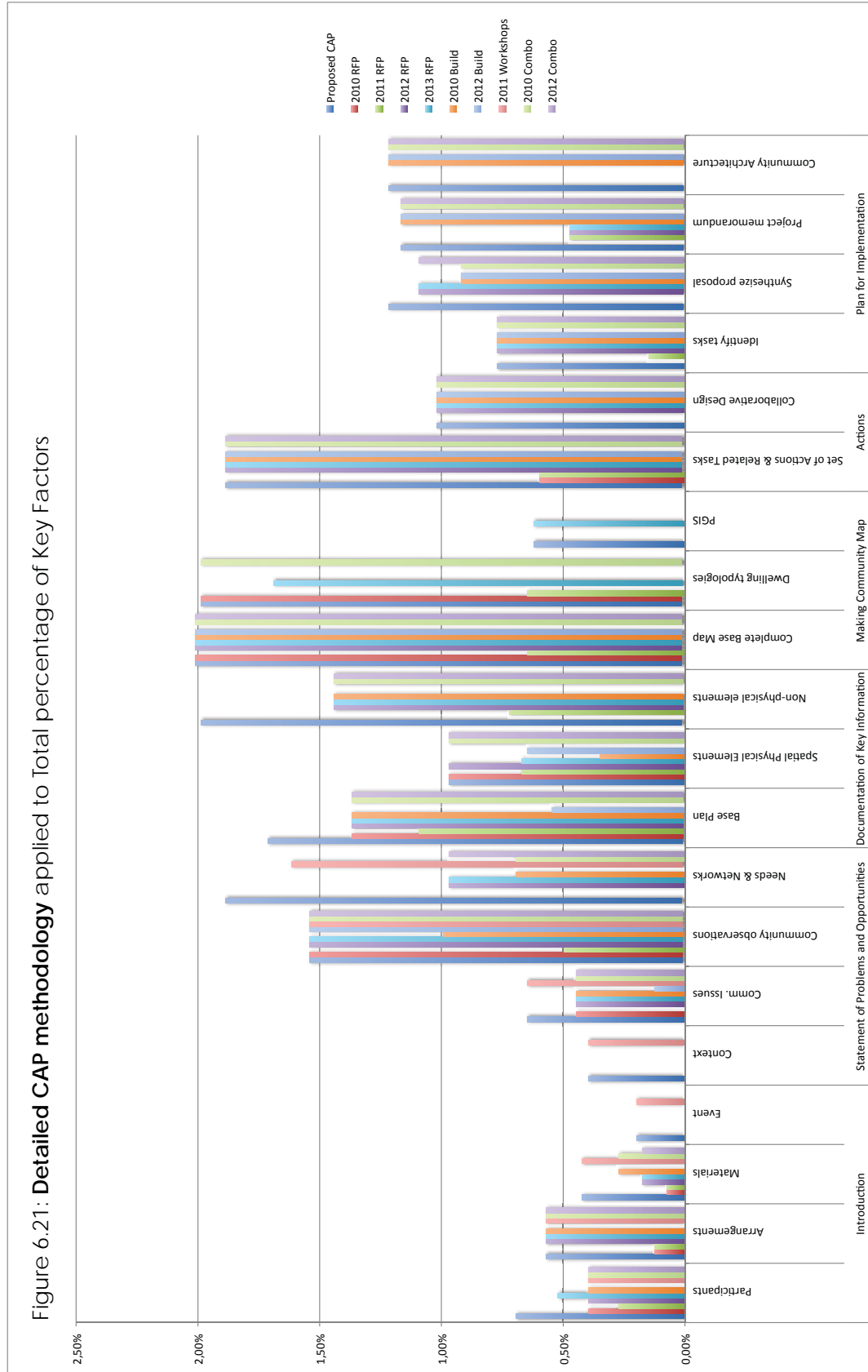
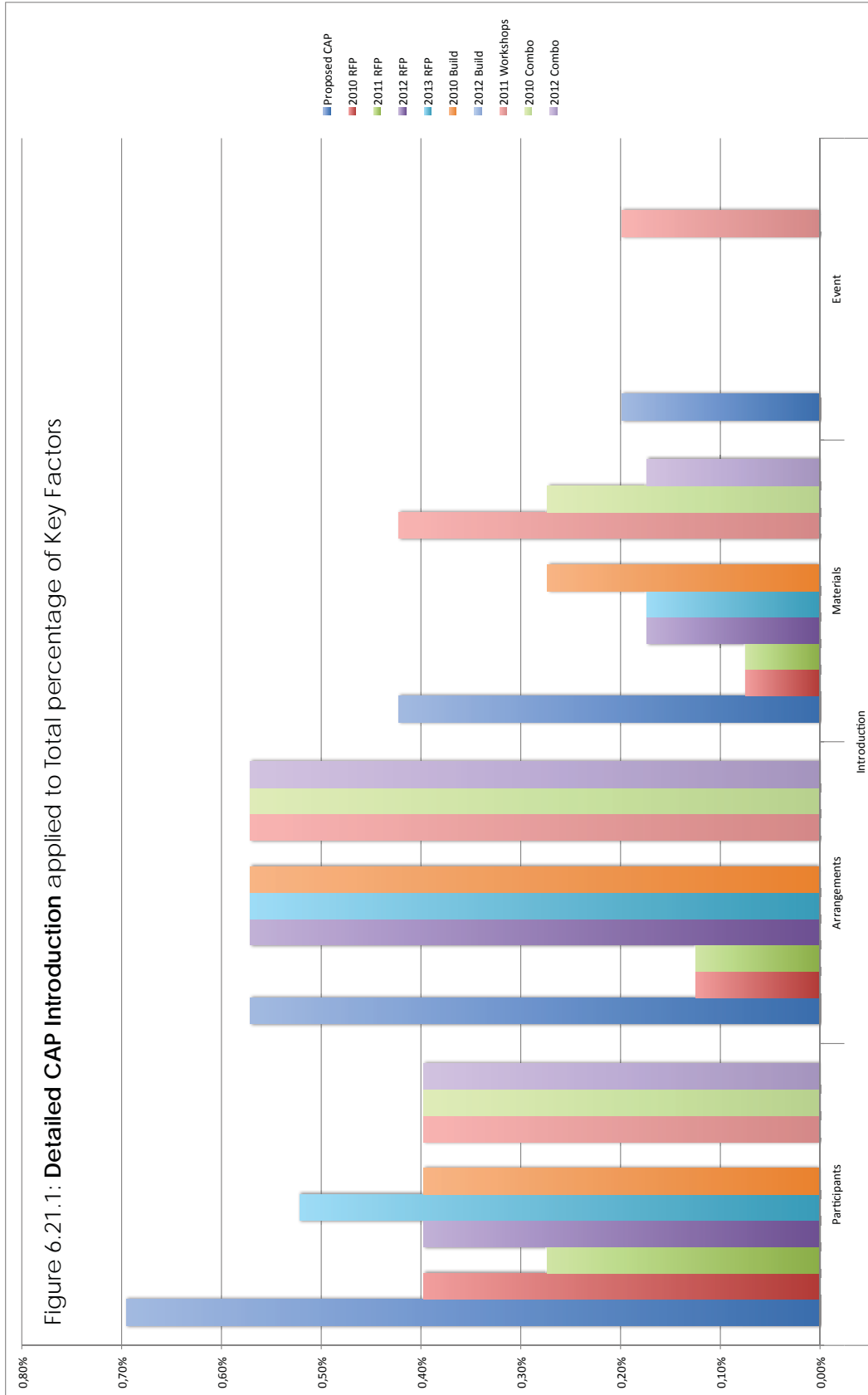
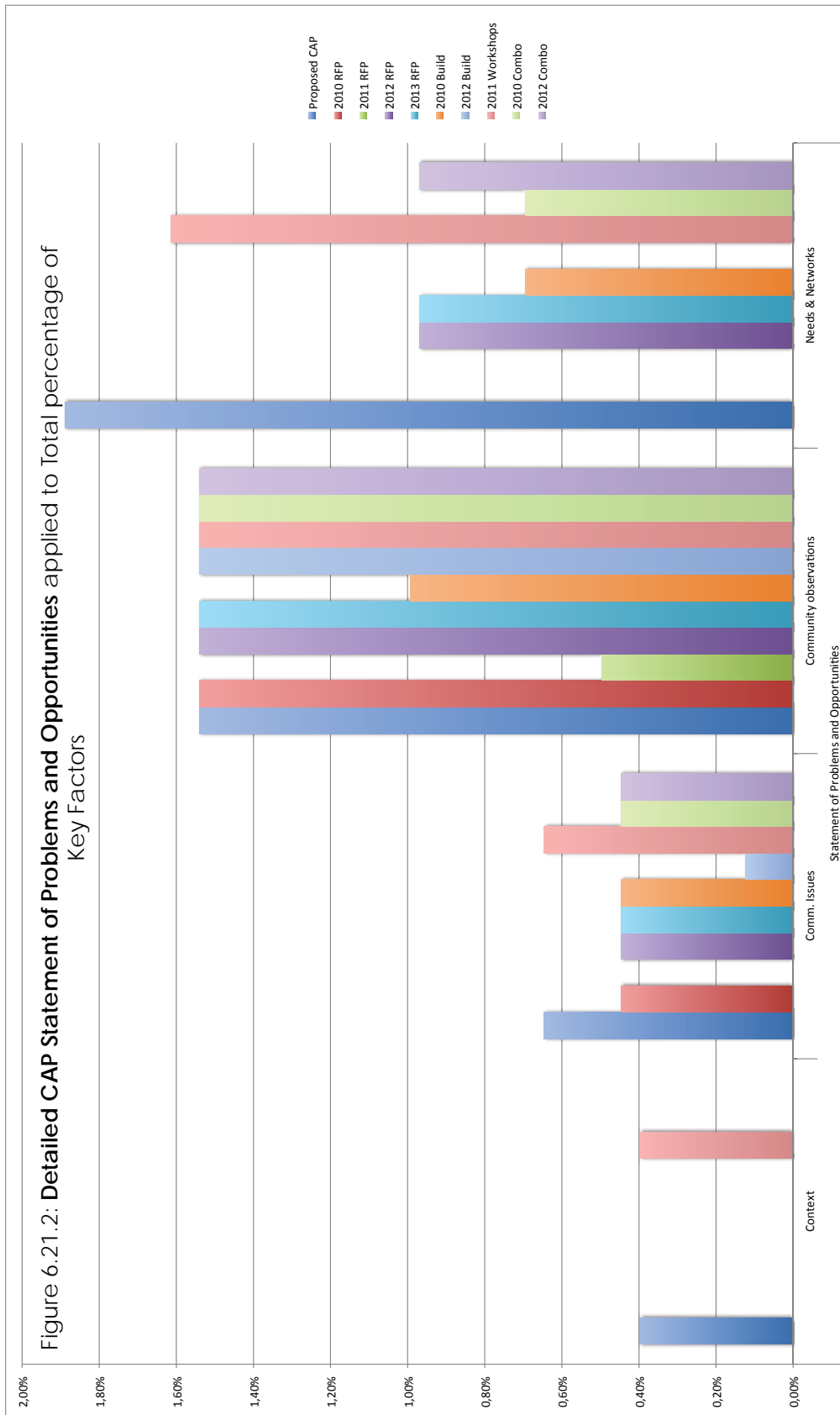


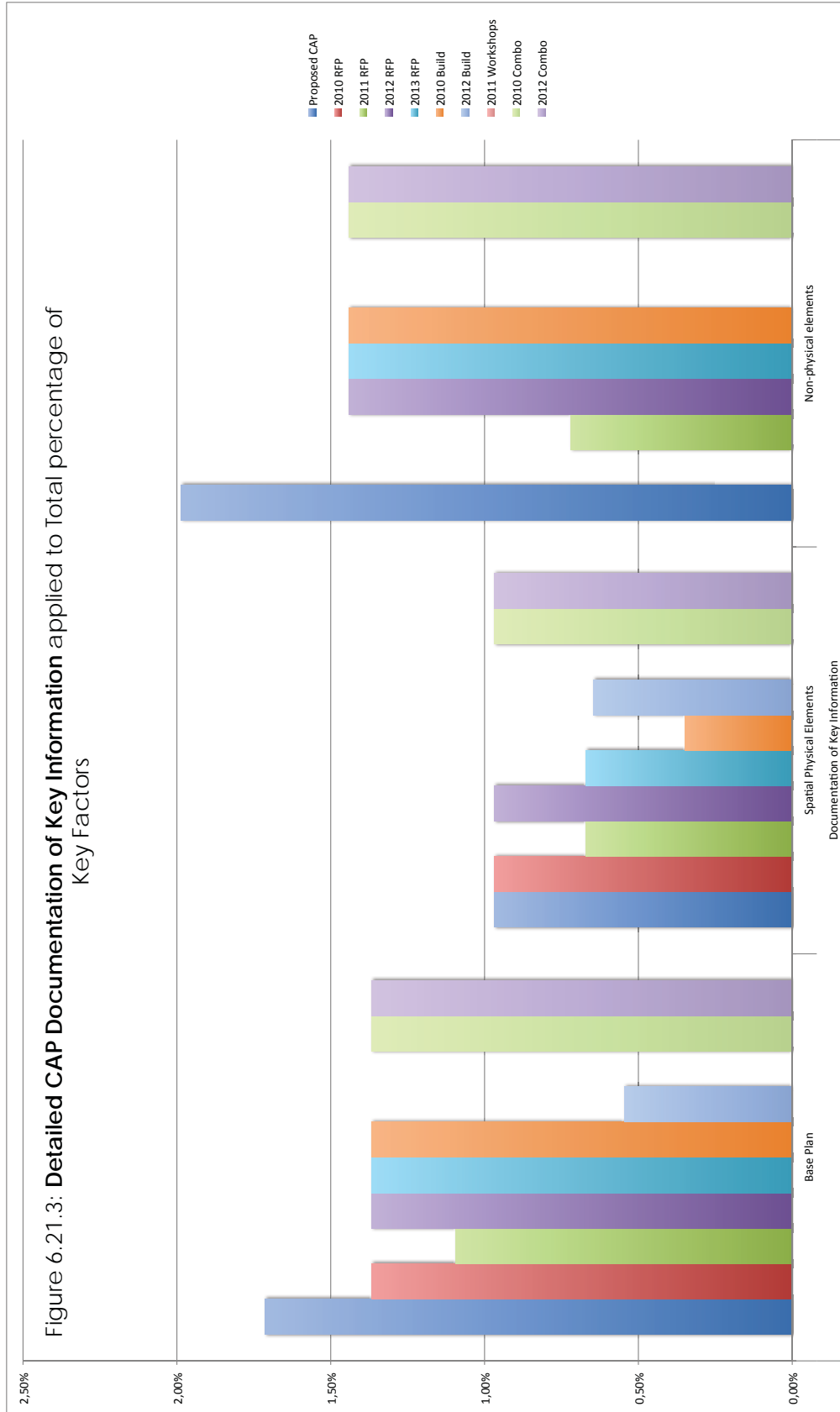
Table 6.12 Detailed CAP methodology applied to Total percentage of Key Factors

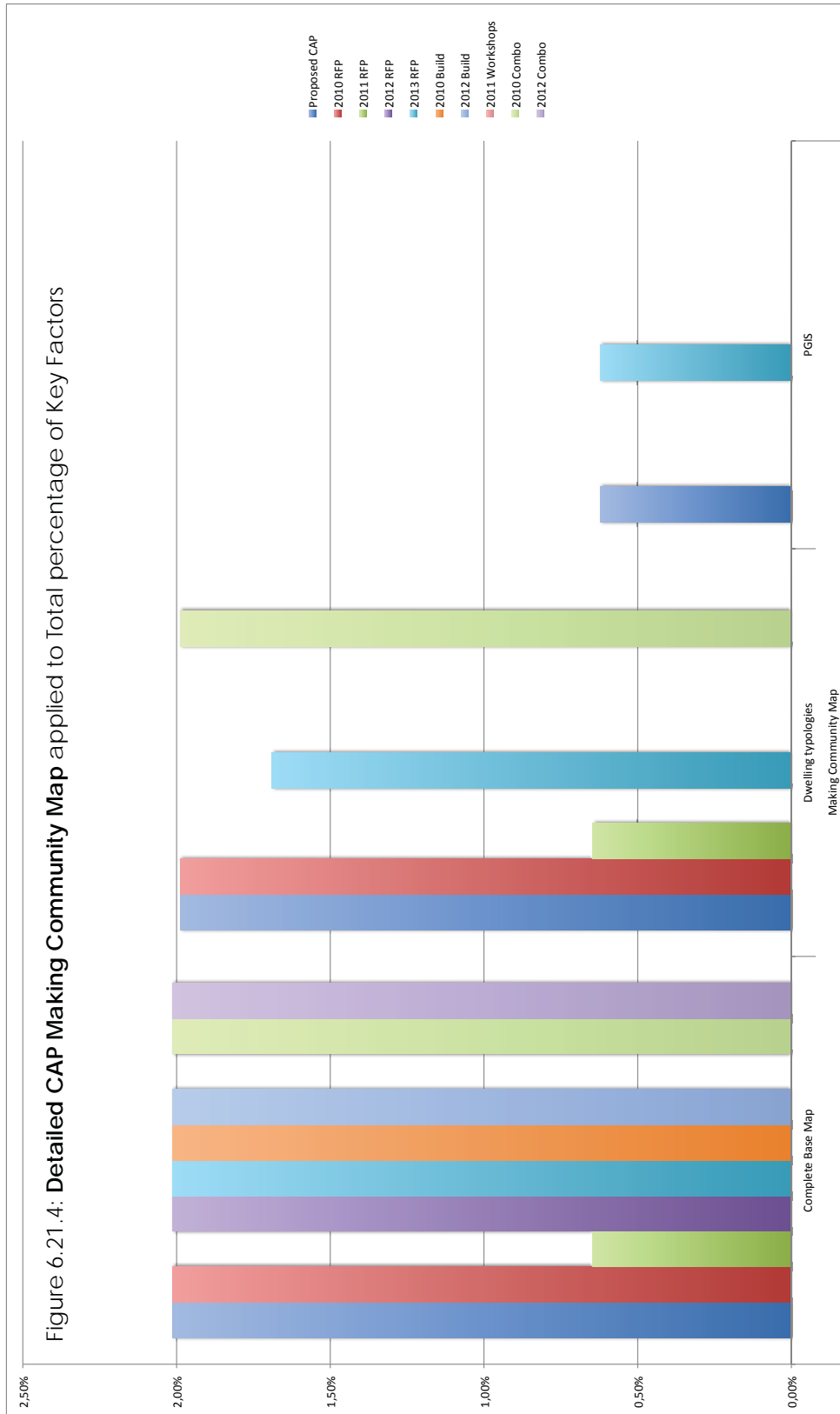
	Introduction				Statement of Problems and Opportunities				Documentation of Key Information			Making Community Map			Actions		Plan for Implementation			
	Participants	Arrangements	Materials	Event	Context	Comm. Issues	Community Observations	Needs & Networks	Base Plan	Spatial Physical Elements	Non-physical elements	Complete Base Map	Dwelling typologies	PGIS	Set of Actions & Related Tasks	Collaborative Design	Identify tasks	Synthesize proposal	Project memorandum	Community Architecture
Proposed CAP	0.70%	0.57%	0.42%	0.20%	0.40%	0.65%	1.54%	1.89%	1.71%	0.97%	1.99%	2.01%	1.99%	0.62%	1.89%	1.02%	0.77%	1.22%	1.17%	1.22%
2010 RFP	0.40%	0.12%	0.07%	0.00%	0.00%	0.45%	1.54%	0.00%	1.37%	0.97%	0.00%	2.01%	1.99%	0.00%	0.60%	0.00%	0.00%	0.00%	0.00%	0.00%
2011 RFP	0.27%	0.12%	0.07%	0.00%	0.00%	0.00%	0.50%	0.00%	1.09%	0.67%	0.72%	0.65%	0.65%	0.00%	0.60%	0.00%	0.15%	0.00%	0.47%	0.00%
2012 RFP	0.40%	0.57%	0.17%	0.00%	0.00%	0.45%	1.54%	0.97%	1.37%	0.97%	1.44%	2.01%	0.00%	0.00%	1.89%	1.02%	0.77%	1.09%	0.47%	0.00%
2013 RFP	0.52%	0.57%	0.17%	0.00%	0.00%	0.45%	1.54%	0.97%	1.37%	0.67%	1.44%	2.01%	1.69%	0.62%	1.89%	1.02%	0.77%	1.09%	0.47%	0.00%
2010 Build	0.40%	0.57%	0.27%	0.00%	0.00%	0.45%	0.99%	0.70%	1.37%	0.35%	1.44%	2.01%	0.00%	0.00%	1.89%	1.02%	0.77%	0.92%	1.17%	1.22%
2012 Build	0.00%	0.00%	0.00%	0.00%	0.00%	0.12%	1.54%	0.00%	0.55%	0.65%	0.00%	2.01%	0.00%	0.00%	1.89%	1.02%	0.77%	0.92%	1.17%	1.22%
2011 Workshops	0.40%	0.57%	0.42%	0.20%	0.40%	0.65%	1.54%	1.61%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
2010 Combo	0.40%	0.57%	0.27%	0.00%	0.00%	0.45%	1.54%	0.70%	1.37%	0.97%	1.44%	2.01%	1.99%	0.00%	1.89%	1.02%	0.77%	0.92%	1.17%	1.22%
2012 Combo	0.40%	0.57%	0.17%	0.00%	0.00%	0.45%	1.54%	0.97%	1.37%	0.97%	1.44%	2.01%	0.00%	0.00%	1.89%	1.02%	0.77%	1.09%	1.17%	1.22%
Total % of Key factors addressed																				

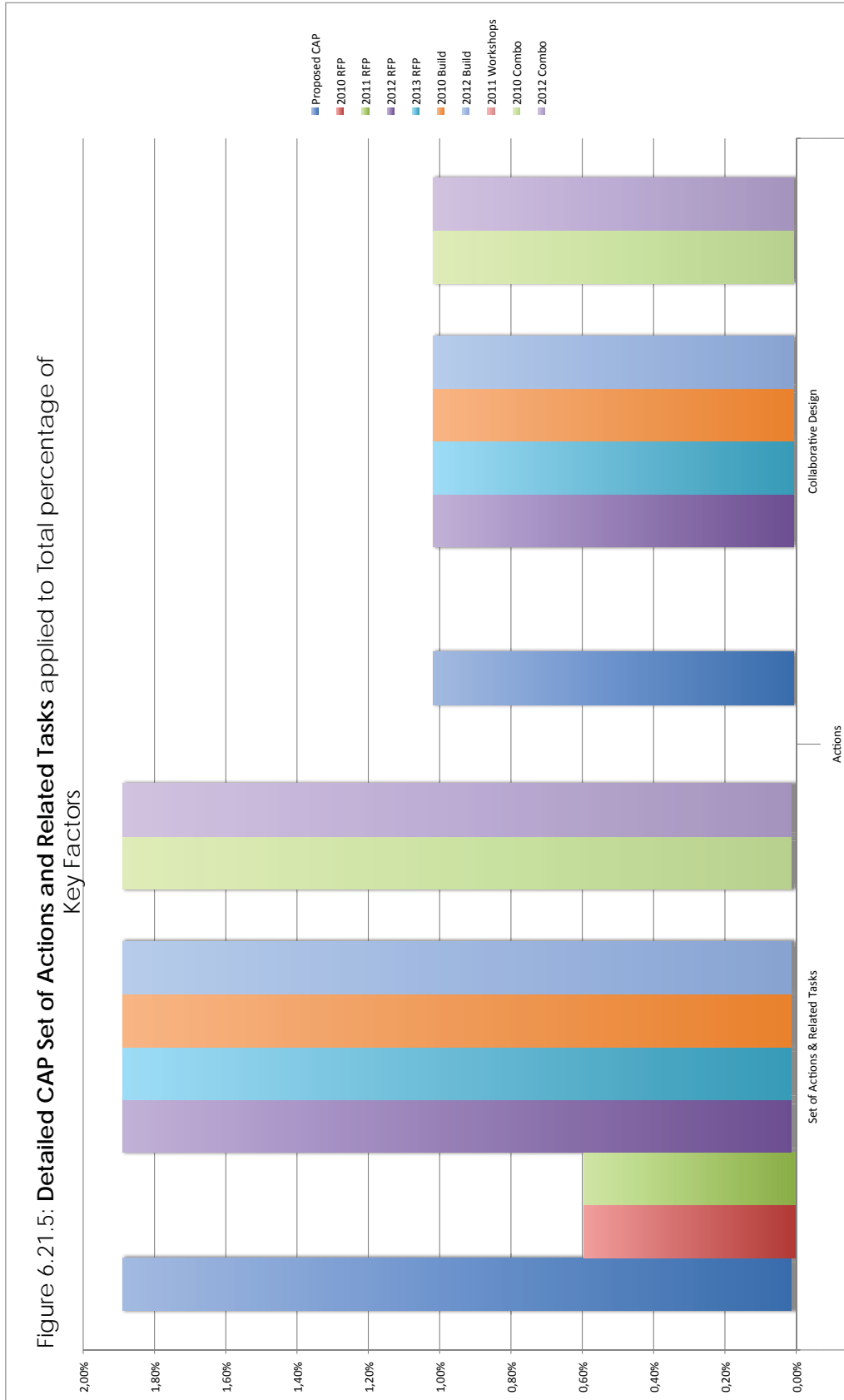


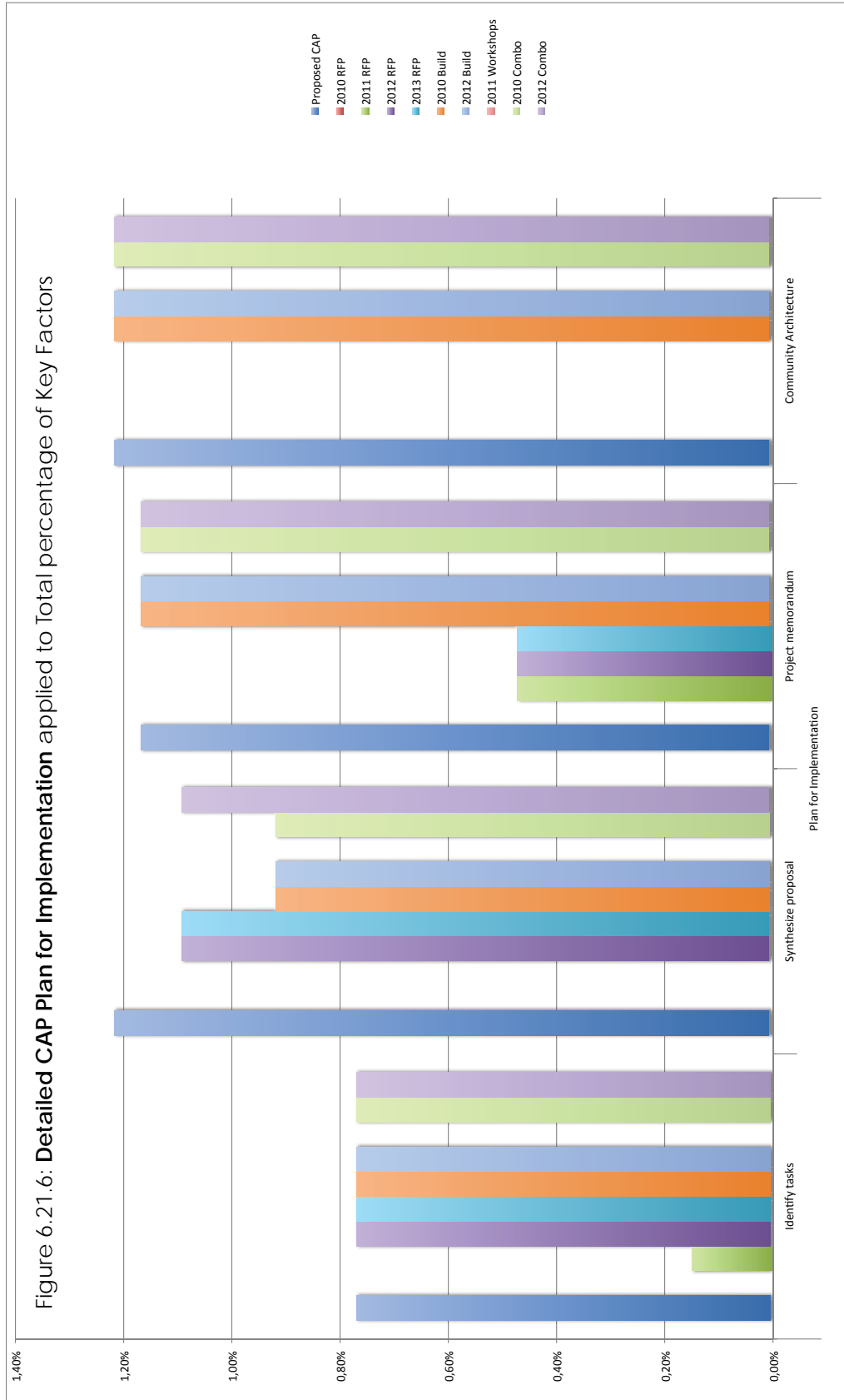












6.4. Addressing the key factors contributing to the marginality of the architectural profession to the discourse on informal settlement upgrade

The key factors that were identified in chapter three of this study have been considered in terms of the application of CAP methodology over the extent of the study period. These factors have been identified as the following:

- *Definition of in-situ upgrade of informal settlements*
- *Transformative mandate*
- *Tri-sectoral balance of power*
- *Tenure security*
- *Participation*
- *Role of architects*

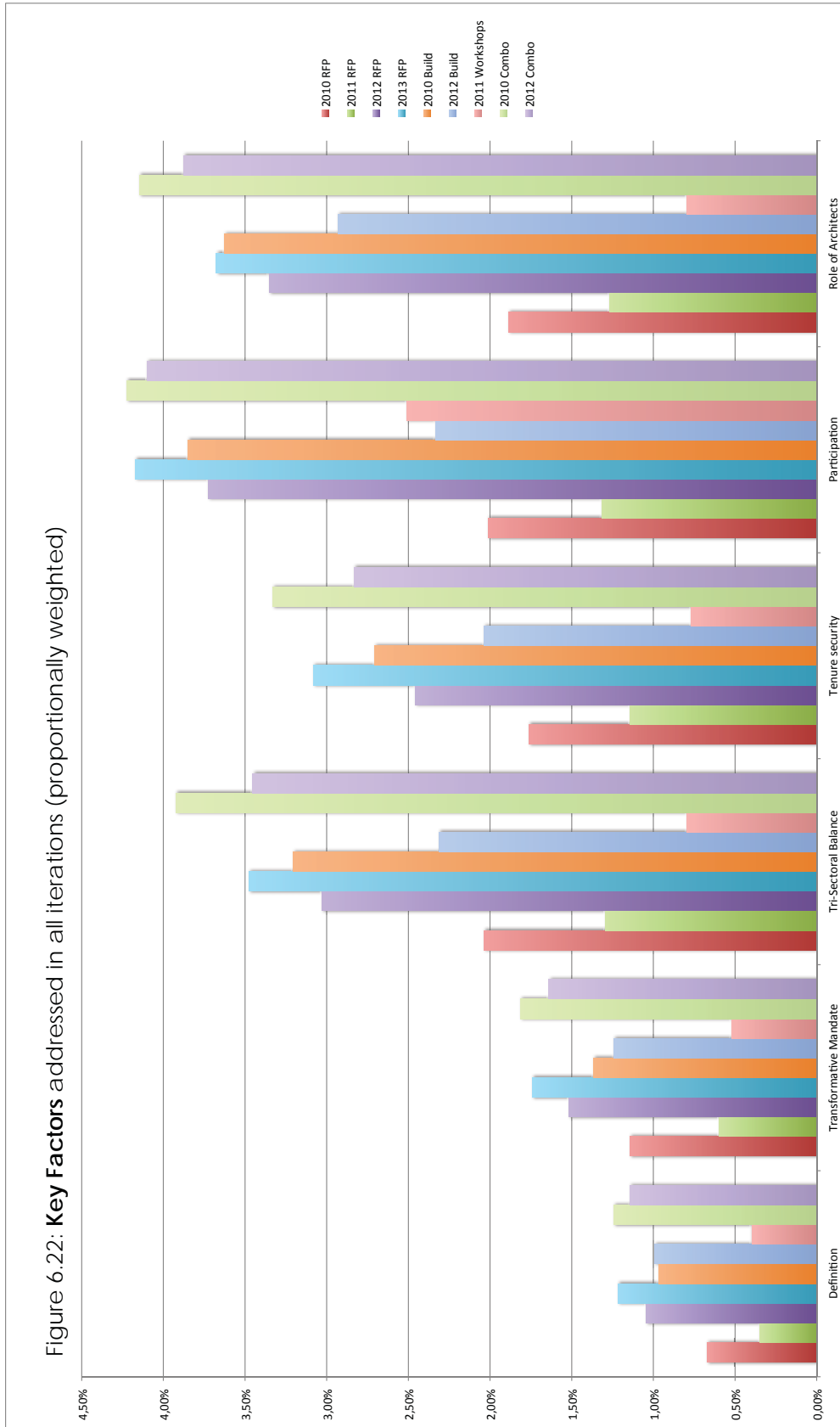
In an overview of the iterations in chapter six, it is evident that the factor of *Participation* has been addressed to the highest proportion, followed by the *Role of Architects* and the *Tri-sectoral Balance*. This holds true for the RFP modules, as well as the combination between the RFP modules and their subsequent construction in 2010 and 2012 (Table 6.14; Figures 6.22; 6.23). An individual consideration of each key factor offers a different view of the results, where it is apparent that addressing the issue of *Role of Architects* achieves the lowest level of satisfaction, both in the RFP modules on average as in the combined view of the 2010 and 2012 iterations (Table 6.13). The greatest level of satisfaction is achieved in the key factor of *Participation*, followed by *Definition*, *Tri-sectoral Balance* and *Transformative Mandate* (Figures 6.23.1; 6.23.2). The comparison between the 2013 RFP module and the average taken between the combined efforts of 2010 and 2012 (Figure 6.23.2) reveals a significant similarity in their ability to address the key factors individually, indicating that the rigorous application of CAP methodology and theoretical alignment achieved in 2013 serves to address the key factors to a similar level of success than when a physical implementation is undertaken.

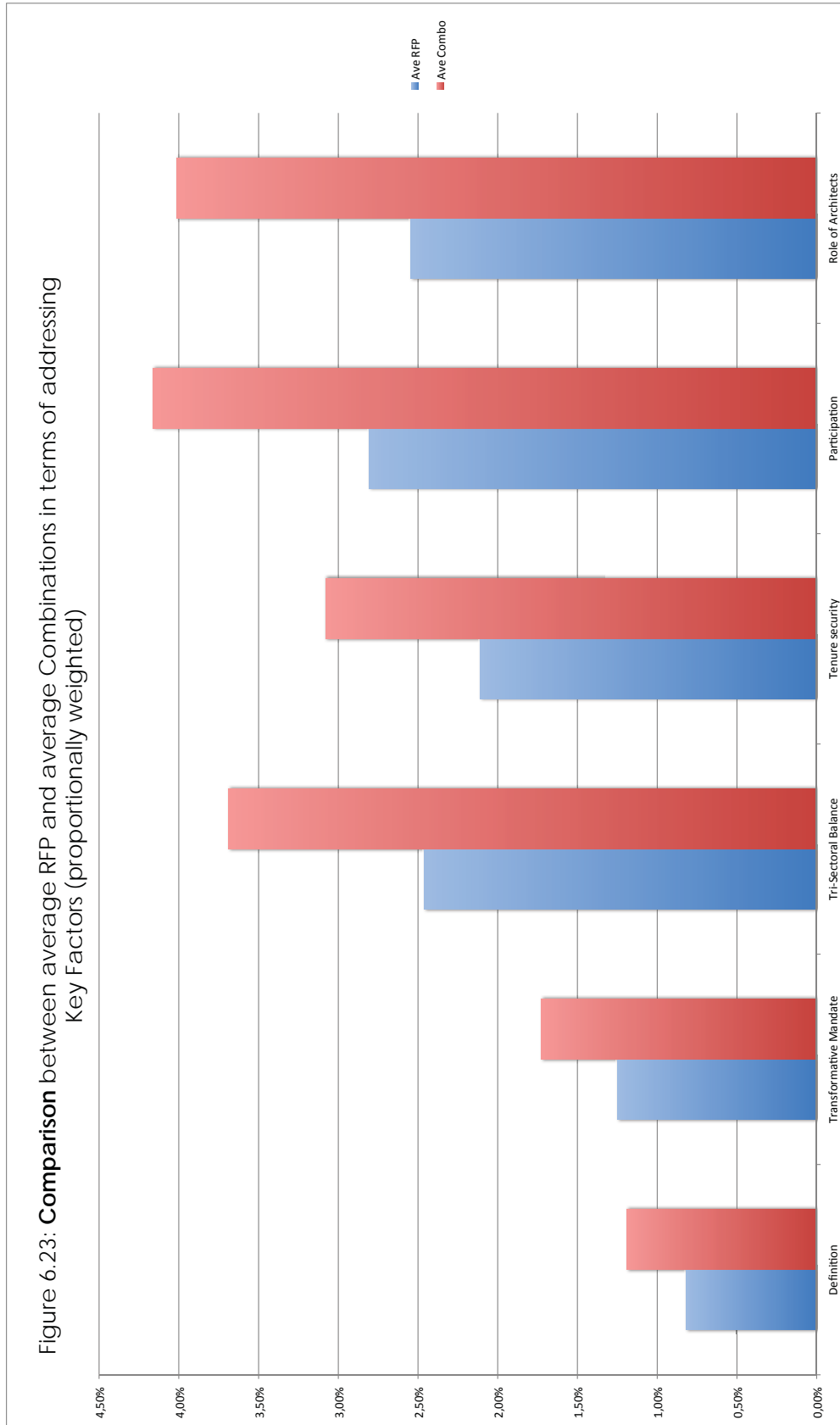
Table 6.13 Key Factors addressed in all iterations (individually weighted)

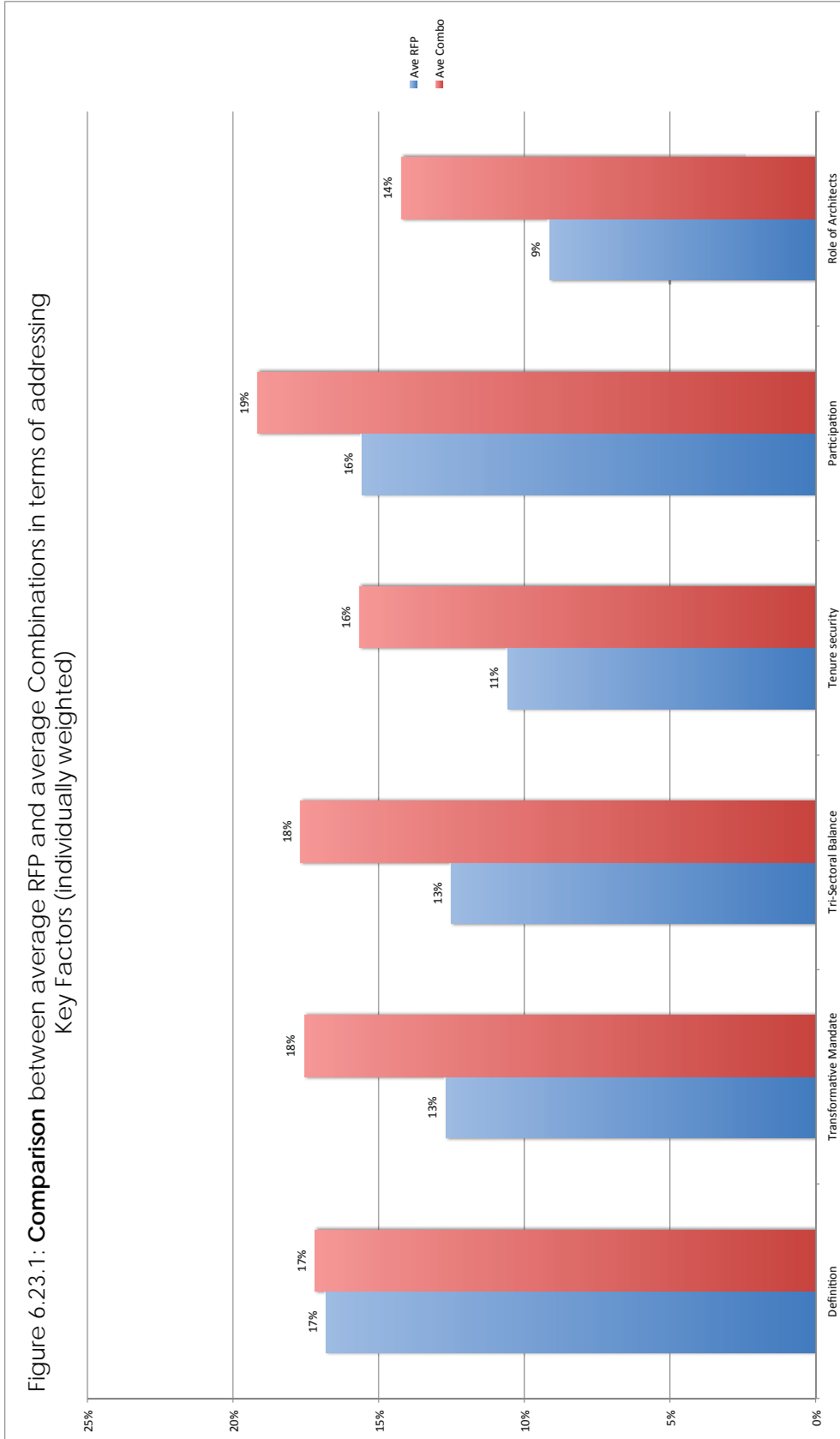
In terms of individual factors		CAP Proposed	2010 RFP	2011 RFP	2012 RFP	2013 RFP	2010 Build	2012 Build	2011 Workshops	2010 Combo	2012 Combo	Ave RFP	Ave Combo	Ave Study Period
Definition	30%	14%	7%	21%	25%	20%	20%	20%	8%	18%	16%	17%	17%	16%
Transformative Mandate	22%	12%	6%	15%	18%	14%	13%	13%	5%	18%	17%	13%	18%	12%
Tri-Sectoral Balance	23%	10%	7%	15%	18%	16%	12%	12%	4%	19%	17%	13%	18%	12%
Tenure security	21%	9%	6%	13%	15%	13%	10%	10%	4%	17%	14%	11%	16%	10%
Participation	31%	11%	7%	21%	23%	21%	13%	13%	14%	20%	19%	16%	19%	16%
Role of Architects	18%	7%	5%	12%	13%	13%	11%	11%	3%	15%	14%	9%	14%	9%
Average	24%	10%	6%	16%	19%	16%	13%	13%	6%	18%	16%	13%	17%	12%

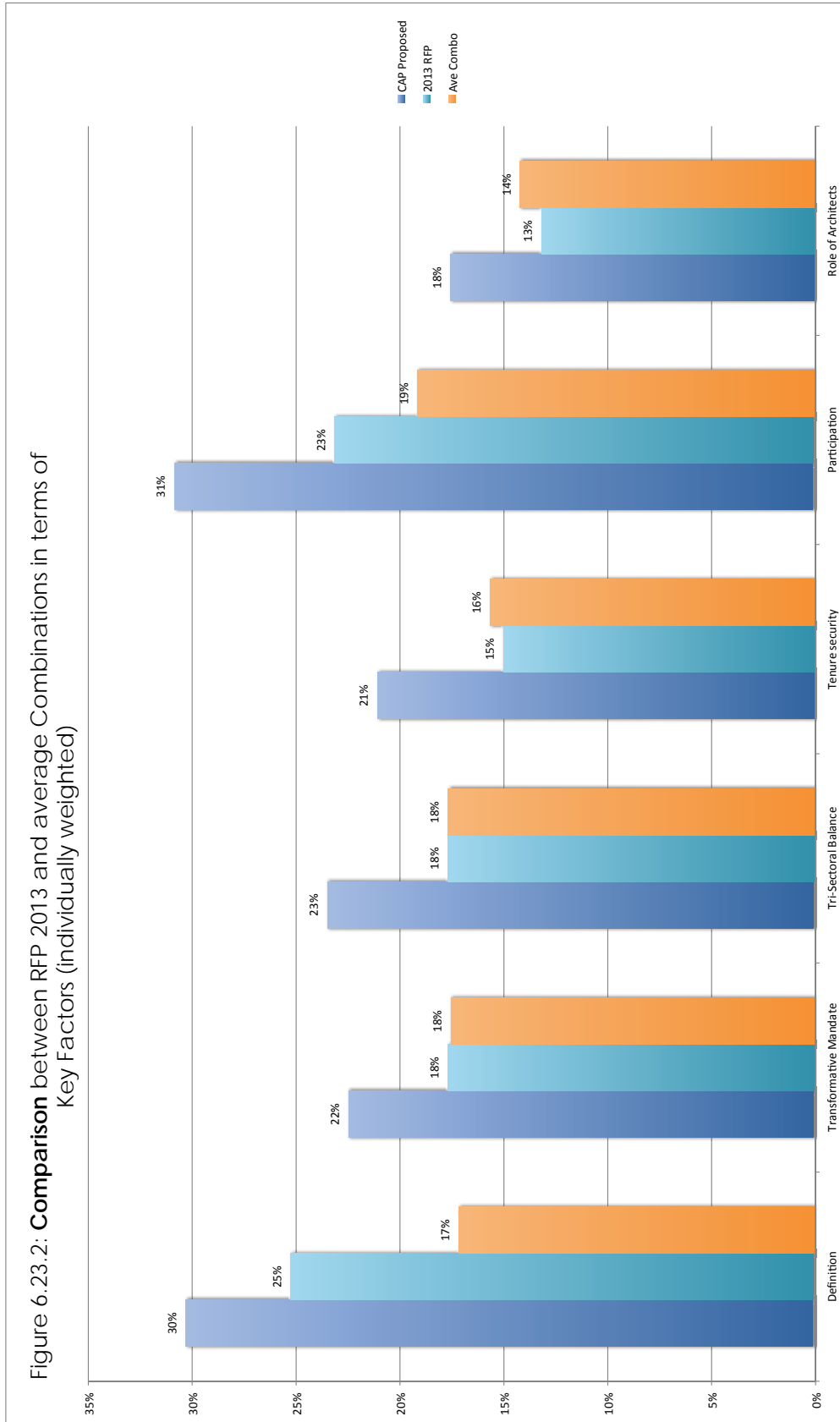
Table 6.14

Key Factors addressed in all iterations, breakdown CAP & Augmentation (proportionally weighted)









6.4.1. Definition of in-situ upgrade of informal settlements

It has been established in this study that it is important to state a definitive position regarding in-situ upgrade of informal settlements, ranging from a position of prejudice in which eradication is favoured, to one where a radical rights-based position may underpin a view to enhancing existing social structures. In establishing a defining position, the following considerations were included:

- *Definition of informal settlements*
 - Identification of the contested legal condition
 - Documentation of level of infrastructural services
 - Acknowledgement of high social stress and poverty

In addressing this key factor of *Definition*, it was found that the *Community Observations* within the *Statement of Problems and Opportunities* as well as the *Set of Actions and Related tasks* were most instrumental over the extent of the study period (Table 6.15; Figure 6.24). Seen in proportion to the other key factors that were considered in the study, the concern with *Definition* was given most importance during the RFP module of 2013 and in the combined iteration of 2010 (Figures 6.25; 6.25.1). When viewed independently, one can confirm that *Definition* was most successfully addressed in the 2013 RFP module, but in this evaluation it is followed by the 2012 RFP module (Figure 6.25.2).

From these results it can be seen that there was a marked improvement in the students' ability to position themselves in terms of in-situ upgrade of informal settlements between 2010 and 2013. The lower performance seen in 2011 may be ascribed to the fact that students did not volunteer to engage in the informal settlement context and were therefore not clear about their positions prior to the engagement. Voluntary engagement in 2012 ensured greater clarity of position, which was strengthened on account of the studio guidance undertaken by the previous participant in the 2010 hall upgrade.

In addition to this, the workshop series in 2011 supported an understanding of the social structures and needs within the settlement, thereby furnishing the 2012 studio with a greater depth of understanding regarding a definitive position. Greater clarity in the student brief of 2013 as well as theoretical support that included literature dedicated to the discourse on

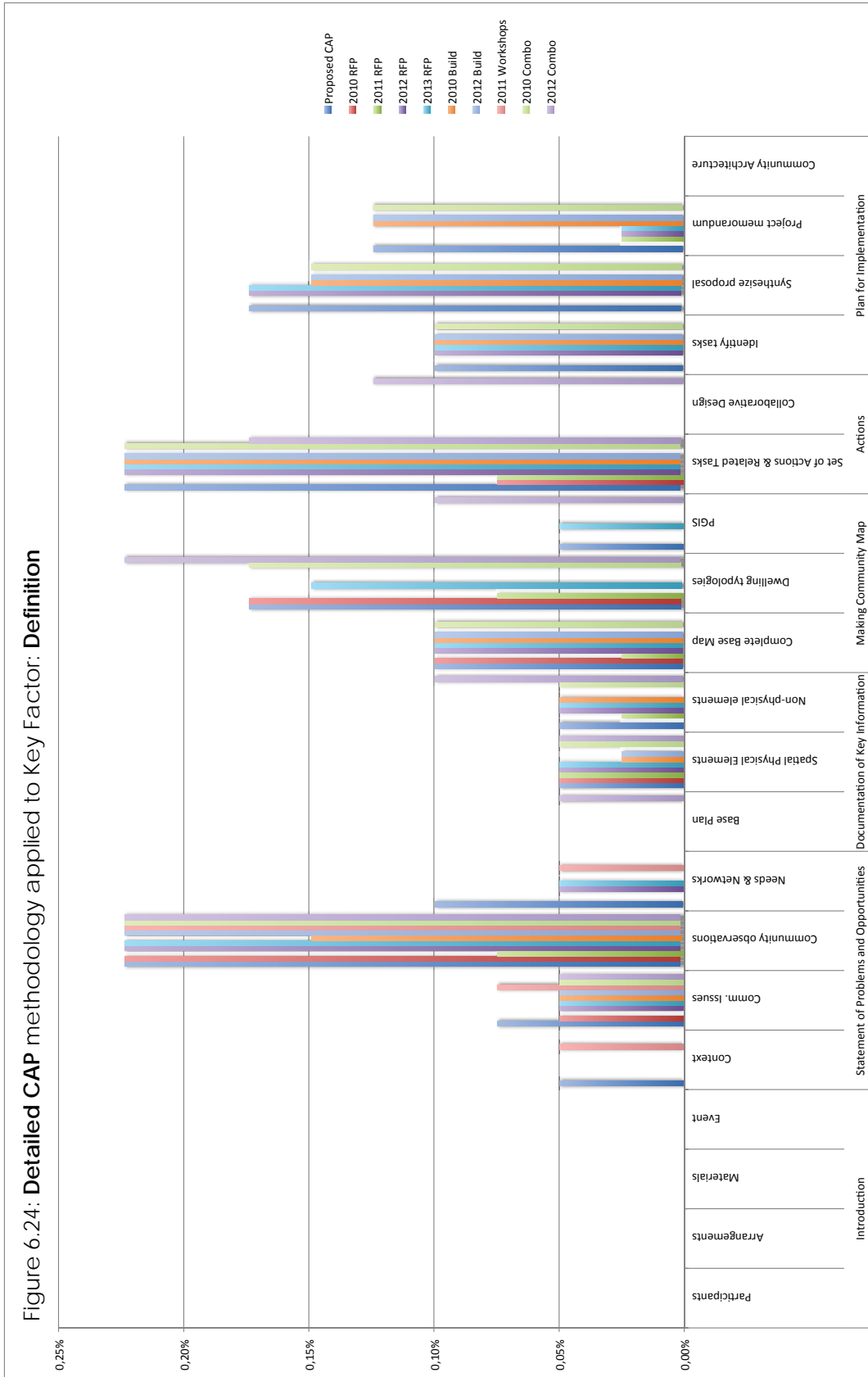
informal settlement upgrade and international examples of such projects contributed to the increase seen in that year.

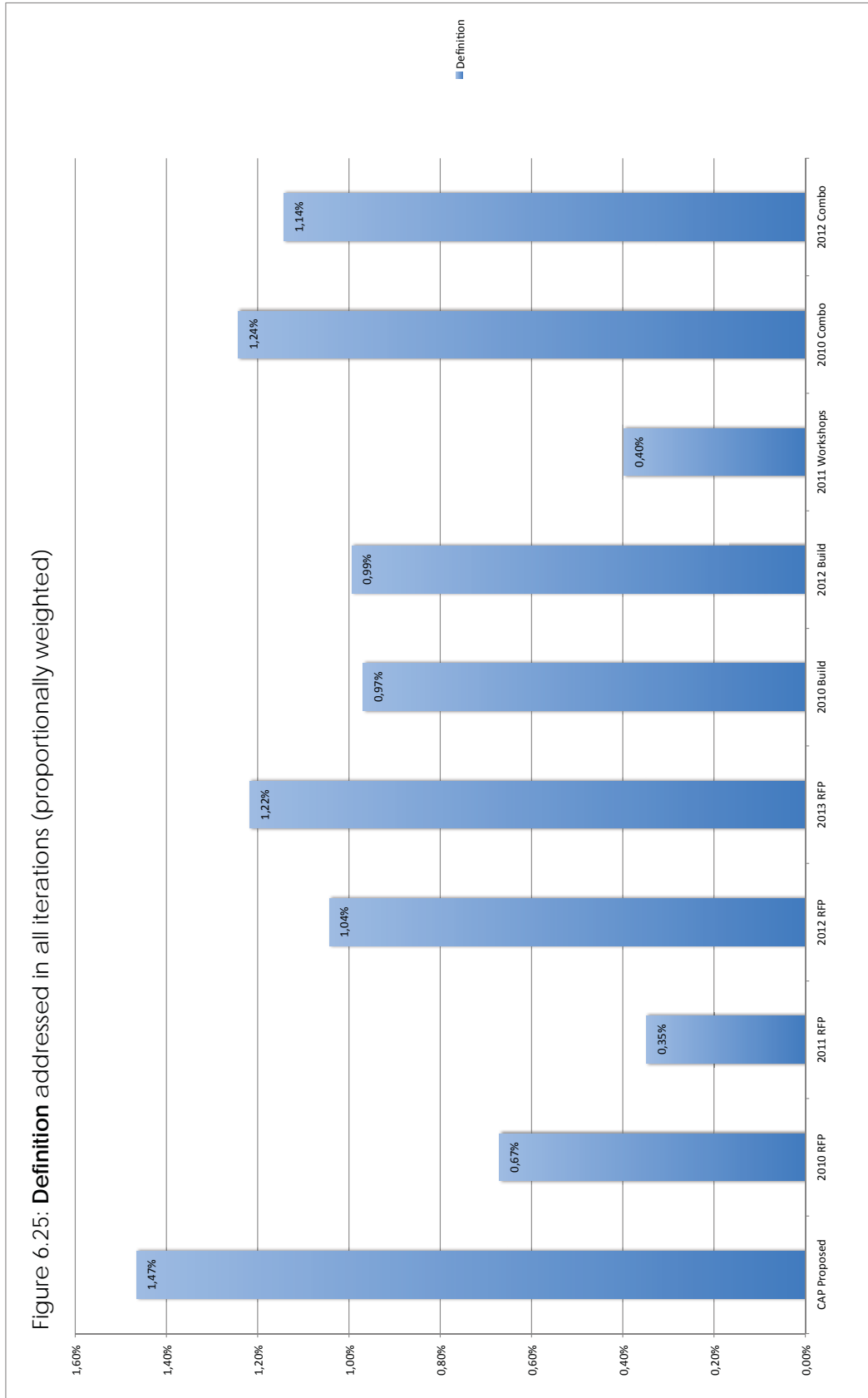
The difference in results seen in 2010 can be attributed to the tentative and undirected engagement of the first encounter during the RFP 721 module as opposed to the very clear intention framed in the second encounter to upgrade the hall. Having undertaken the research and design required during the first engagement, students had become conscious of the issues of concern within the settlement and were therefore able to assume a stronger position regarding in-situ upgrade.

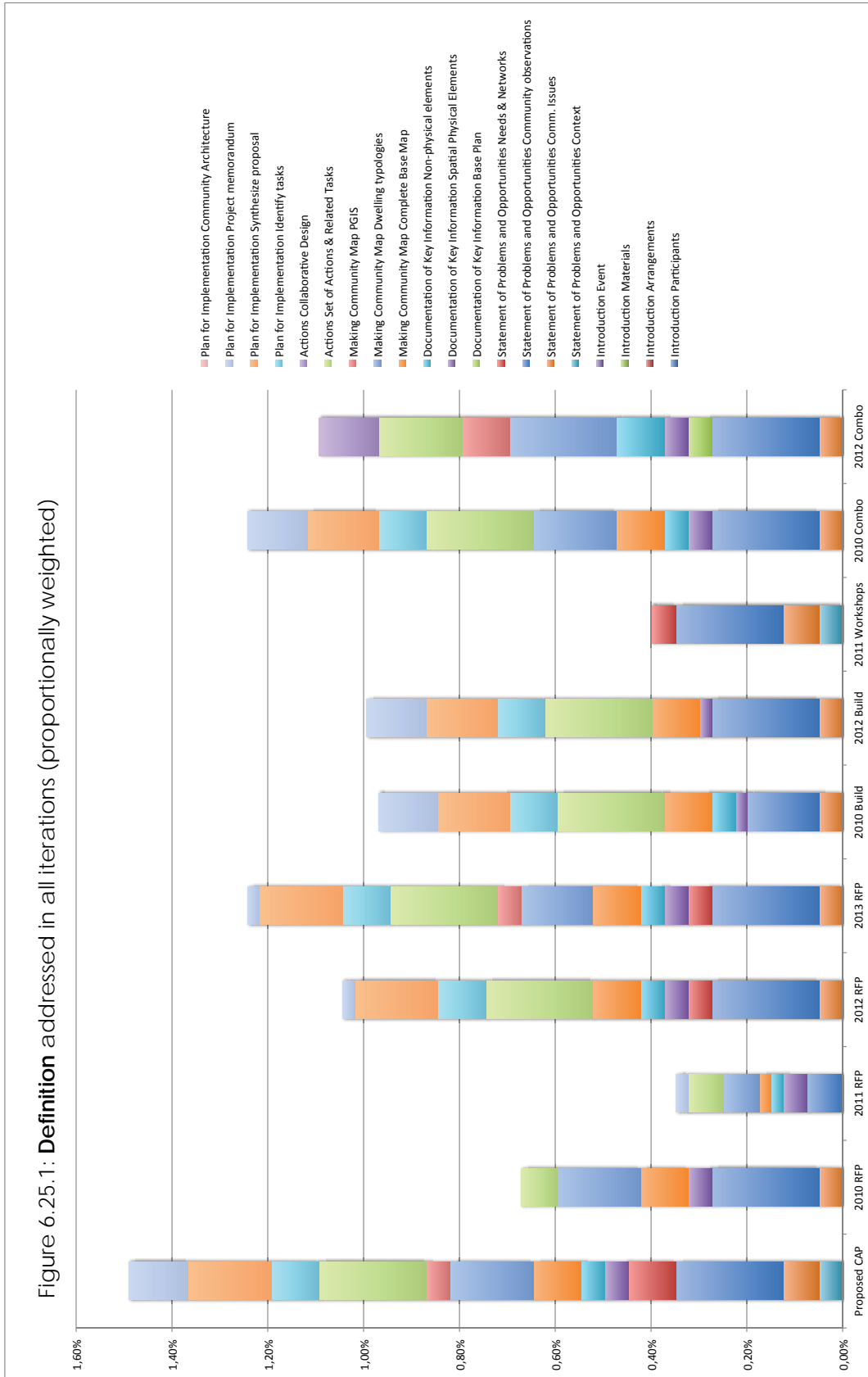
The engagements undertaken in 2012 remained at a similar level, largely influenced by the fact that the community and site of Slovo Park were no longer unknown to the student and lecturing body. The small variation noted between the 2012 academic module and 2012 combined with the live build indicates that the process of construction did not radically influence the position. Rather, it can be seen as a confirmation of the students' definition and position regarding *in-situ* upgrade.

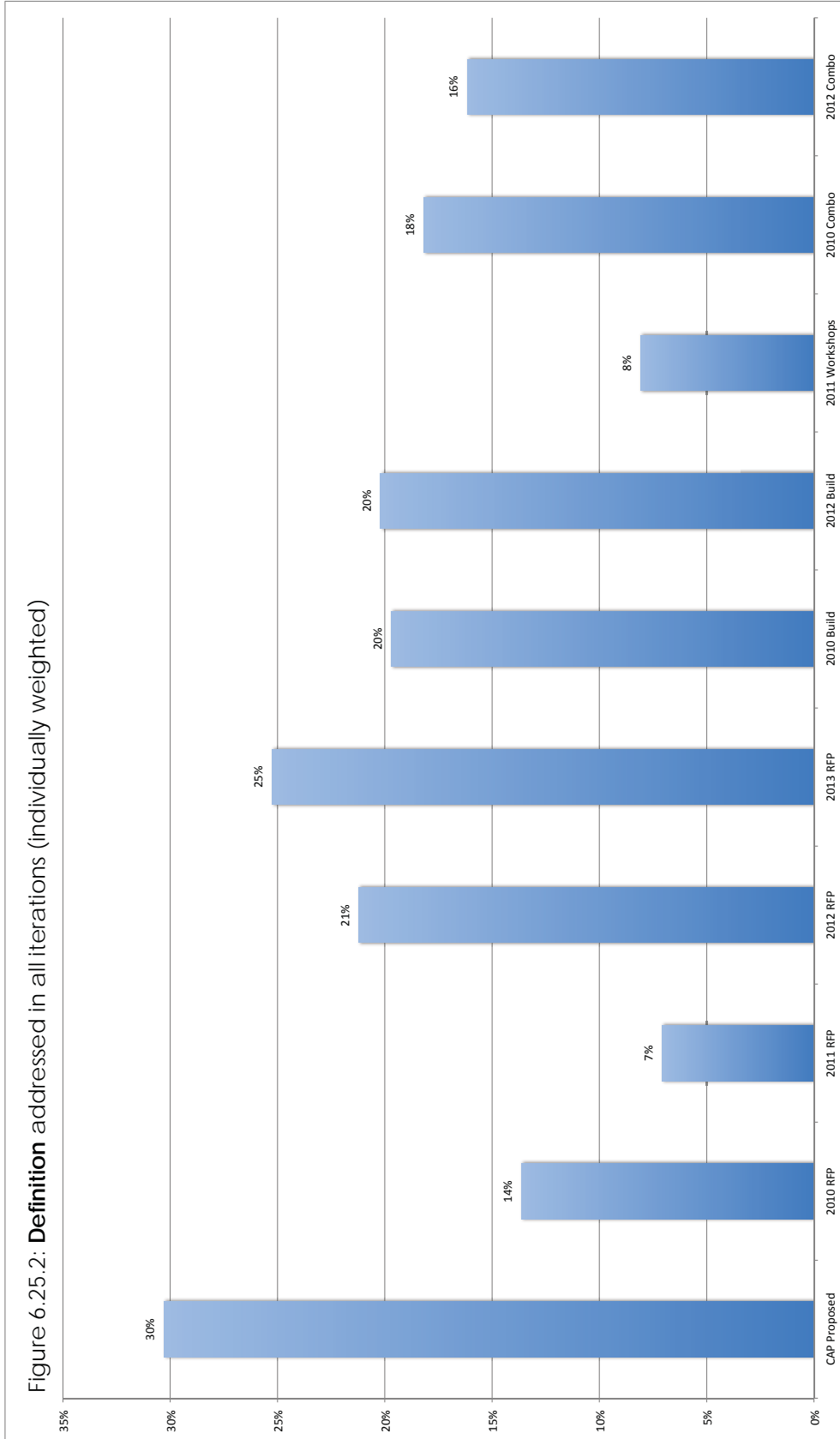
Table 6.15 Detailed CAP methodology applied to Key Factor: Definition

	Introduction				Statement of Problems and Opportunities				Documentation of Key Information			Making Community Map			Actions		Plan for Implementation			
	Participants	Arrangements	Materials	Event	Context	Comm. Issues	Community observations	Needs & Networks	Base Plan	Spatial Physical Elements	Non-physical elements	Complete Base Map	Dwelling typologies	PGIS	Set of Actions & Related Tasks	Collaborative Design	Identify tasks	Synthesize proposal	Project memorandum	Community Architecture
Proposed CAP	0,00%	0,00%	0,00%	0,00%	0,05%	0,07%	0,22%	0,10%	0,05%	0,05%	0,05%	0,10%	0,17%	0,05%	0,22%	0,00%	0,10%	0,17%	0,12%	0,00%
2010 RFP	0,00%	0,00%	0,00%	0,00%	0,00%	0,05%	0,22%	0,00%	0,05%	0,00%	0,10%	0,17%	0,00%	0,07%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%
2011 RFP	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,07%	0,00%	0,05%	0,02%	0,02%	0,02%	0,07%	0,00%	0,07%	0,00%	0,00%	0,02%	0,02%	0,00%
2012 RFP	0,00%	0,00%	0,00%	0,00%	0,00%	0,05%	0,22%	0,05%	0,05%	0,05%	0,10%	0,00%	0,00%	0,00%	0,22%	0,00%	0,10%	0,17%	0,02%	0,00%
2013 RFP	0,00%	0,00%	0,00%	0,00%	0,00%	0,05%	0,22%	0,05%	0,05%	0,05%	0,10%	0,15%	0,05%	0,05%	0,22%	0,00%	0,10%	0,17%	0,02%	0,00%
2010 Build	0,00%	0,00%	0,00%	0,00%	0,00%	0,05%	0,15%	0,00%	0,02%	0,05%	0,10%	0,00%	0,00%	0,00%	0,22%	0,00%	0,10%	0,15%	0,12%	0,00%
2012 Build	0,00%	0,00%	0,00%	0,00%	0,00%	0,05%	0,22%	0,00%	0,02%	0,00%	0,10%	0,00%	0,00%	0,00%	0,22%	0,00%	0,10%	0,15%	0,12%	0,00%
2011 Workshops	0,00%	0,00%	0,00%	0,00%	0,05%	0,07%	0,22%	0,05%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%
2010 Combo	0,00%	0,00%	0,00%	0,00%	0,00%	0,05%	0,22%	0,00%	0,05%	0,05%	0,10%	0,17%	0,00%	0,00%	0,22%	0,00%	0,10%	0,15%	0,12%	0,00%
2012 Combo	0,00%	0,00%	0,00%	0,00%	0,00%	0,05%	0,22%	0,05%	0,05%	0,10%	0,00%	0,22%	0,10%	0,17%	0,12%	0,00%	0,00%	0,00%	0,00%	0,00%









6.4.2. Transformative mandate

An understanding of the current status quo as a causal factor contributing to the prevalence of informal settlements is considered to be a key factor in the discourse on informal settlement upgrade. The level of systemic transformation implied in an upgrading process impacts on the approach to such an upgrade intervention and is therefore seen as a prerequisite to meaningful engagement by the architectural profession. The following issues were included for consideration within the transformative mandate:

- *Informality as consequence of status quo*
- *Level of transformation required*

Over the study period, it has been found that *Making Community Map*, specifically focusing on the *Complete Base Map*, as well as the *Community Observations* within the *Statement of Problems and Opportunities* served to address the key factor of *Transformative Mandate* to the greatest proportion (Table 6.16; Figure 6.26). The greatest levels of satisfaction were achieved during the 2013 iteration of the RFP module as well as the combination between the studio module and the subsequent construction during 2010 (Figures 6.27; 6.27.1; 6.27.2).

The 2011 iteration indicates a poor application of the CAP methodology in terms of addressing the *Transformative Mandate*. This can be ascribed to the strong focus on desktop documentation, with limited community input. Such an approach resulted in the omission of a comprehensive *Statement of Problems and Opportunities*, *Making Community Map* and *Plan for Implementation*. Introduction to the settlement by way of the NGO *Viva Village* appears to have contributed to the objective observation of the settlement without subjective immersion into the community concerns. In addition, the scheduling of community meetings did not encourage immediate points of contact at the initial stages of investigation, which allowed students to rely on known methods of site analysis based on desktop studies.

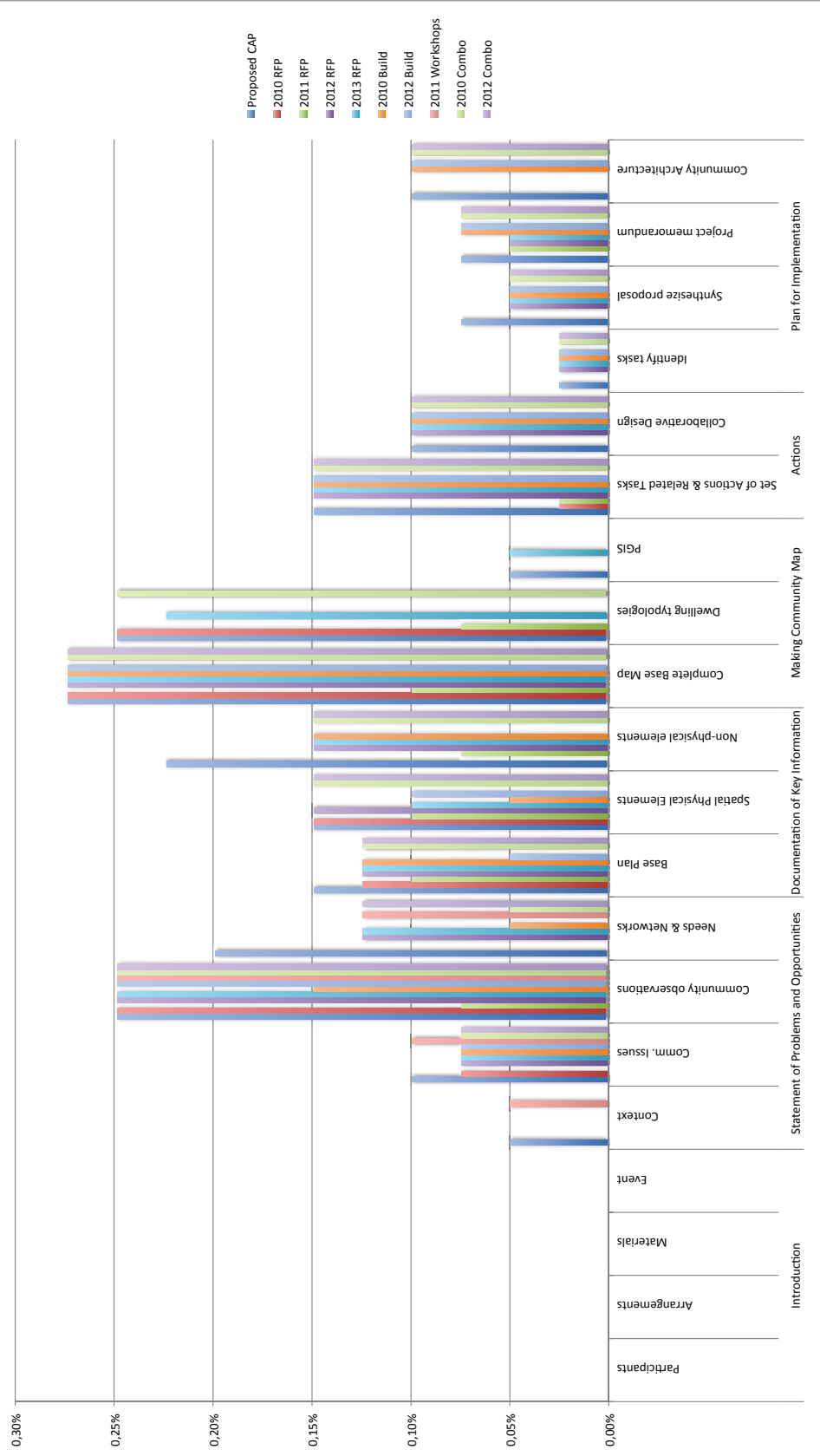
The incremental improvement noted in the 2012 and 2013 iterations is attributed to a more rigorous framework of engagement and in 2013, the explicit introduction of the CAP methodology. The theoretical support in 2012 and 2013 included literature that was more focused on the specific discourse of informal urbanism, thereby increasing the level of debate within the student group regarding the issue of systemic transformation.

The results indicate a smaller increase in the ability to address this key factor by way of physical implementation following on the academic research and design studio in 2012 than in 2010. Solidarity between the students and community members achieved during the construction process can be seen as an important consideration for the improved understanding of the causative factors and transformation implied in informal settlements in 2010. This consciousness necessarily underpins the 2012 studio that was led by the previous participant in the 2010 engagement. The ability to achieve a similar result in 2013 without engaging in a physical construction process, however, implies that an academic research and design module that is appropriately supported by the theory module serves as an adequate vehicle to apply the CAP methods towards addressing the *Transformative Mandate*.

Table 6.16 Detailed CAP methodology applied to Key Factor: Transformative Mandate

	Introduction				Statement of Problems and Opportunities				Documentation of Key Information			Making Community Map			Actions		Plan for Implementation			
	Participants	Arrangements	Materials	Event	Context	Comm. Issues	Community observations	Needs & Networks	Base Plan	Spatial Physical Elements	Non-physical elements	Complete Base Map	Dwelling typologies	PGIS	Set of Actions & Related Tasks	Collaborative Design	Identify tasks	Synthesize proposal	Project memorandum	Community Architecture
Proposed CAP	0,00%	0,00%	0,00%	0,00%	0,05%	0,10%	0,25%	0,20%	0,15%	0,15%	0,22%	0,27%	0,25%	0,05%	0,15%	0,10%	0,02%	0,07%	0,07%	0,10%
2010 RFP	0,00%	0,00%	0,00%	0,00%	0,00%	0,07%	0,25%	0,00%	0,12%	0,15%	0,00%	0,27%	0,25%	0,00%	0,02%	0,00%	0,00%	0,00%	0,00%	0,00%
2011 RFP	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,07%	0,00%	0,10%	0,10%	0,07%	0,10%	0,07%	0,00%	0,02%	0,00%	0,00%	0,00%	0,05%	0,00%
2012 RFP	0,00%	0,00%	0,00%	0,00%	0,00%	0,07%	0,25%	0,12%	0,15%	0,15%	0,27%	0,00%	0,00%	0,00%	0,15%	0,10%	0,02%	0,05%	0,05%	0,00%
2013 RFP	0,00%	0,00%	0,00%	0,00%	0,00%	0,07%	0,25%	0,12%	0,10%	0,15%	0,27%	0,22%	0,00%	0,05%	0,15%	0,10%	0,02%	0,05%	0,05%	0,00%
2010 Build	0,00%	0,00%	0,00%	0,00%	0,00%	0,07%	0,15%	0,05%	0,12%	0,15%	0,27%	0,00%	0,00%	0,00%	0,15%	0,10%	0,02%	0,05%	0,07%	0,10%
2012 Build	0,00%	0,00%	0,00%	0,00%	0,00%	0,07%	0,25%	0,00%	0,05%	0,10%	0,27%	0,00%	0,00%	0,00%	0,15%	0,10%	0,02%	0,05%	0,07%	0,10%
2011 Workshops	0,00%	0,00%	0,00%	0,00%	0,05%	0,10%	0,25%	0,12%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%
2010 Combo	0,00%	0,00%	0,00%	0,00%	0,00%	0,07%	0,25%	0,05%	0,12%	0,15%	0,27%	0,25%	0,00%	0,00%	0,15%	0,10%	0,02%	0,05%	0,07%	0,10%
2012 Combo	0,00%	0,00%	0,00%	0,00%	0,00%	0,07%	0,25%	0,12%	0,15%	0,15%	0,27%	0,00%	0,00%	0,00%	0,15%	0,10%	0,02%	0,05%	0,07%	0,10%

Figure 6.26: Detailed CAP methodology applied to Key Factor: Transformative mandate



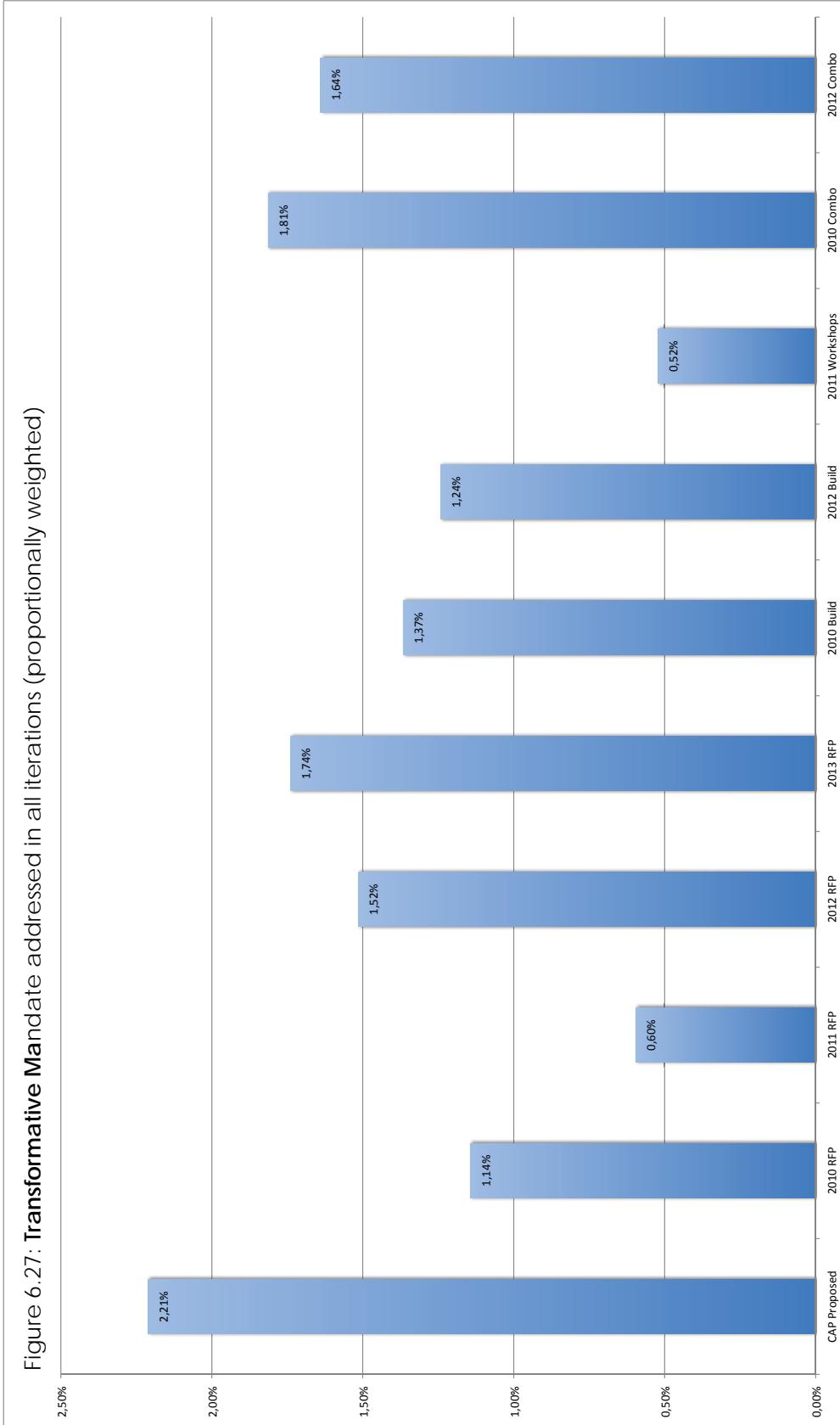
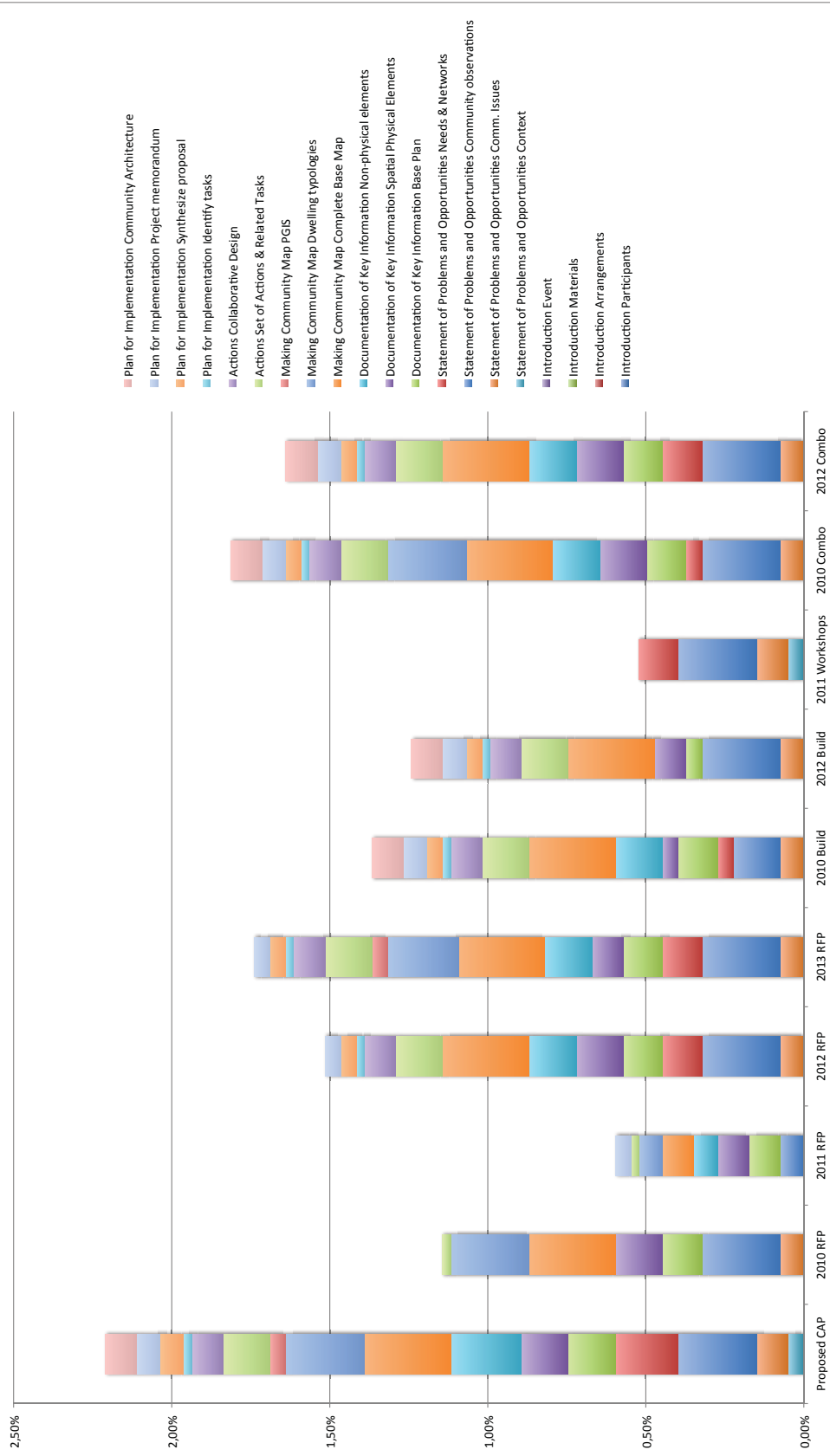
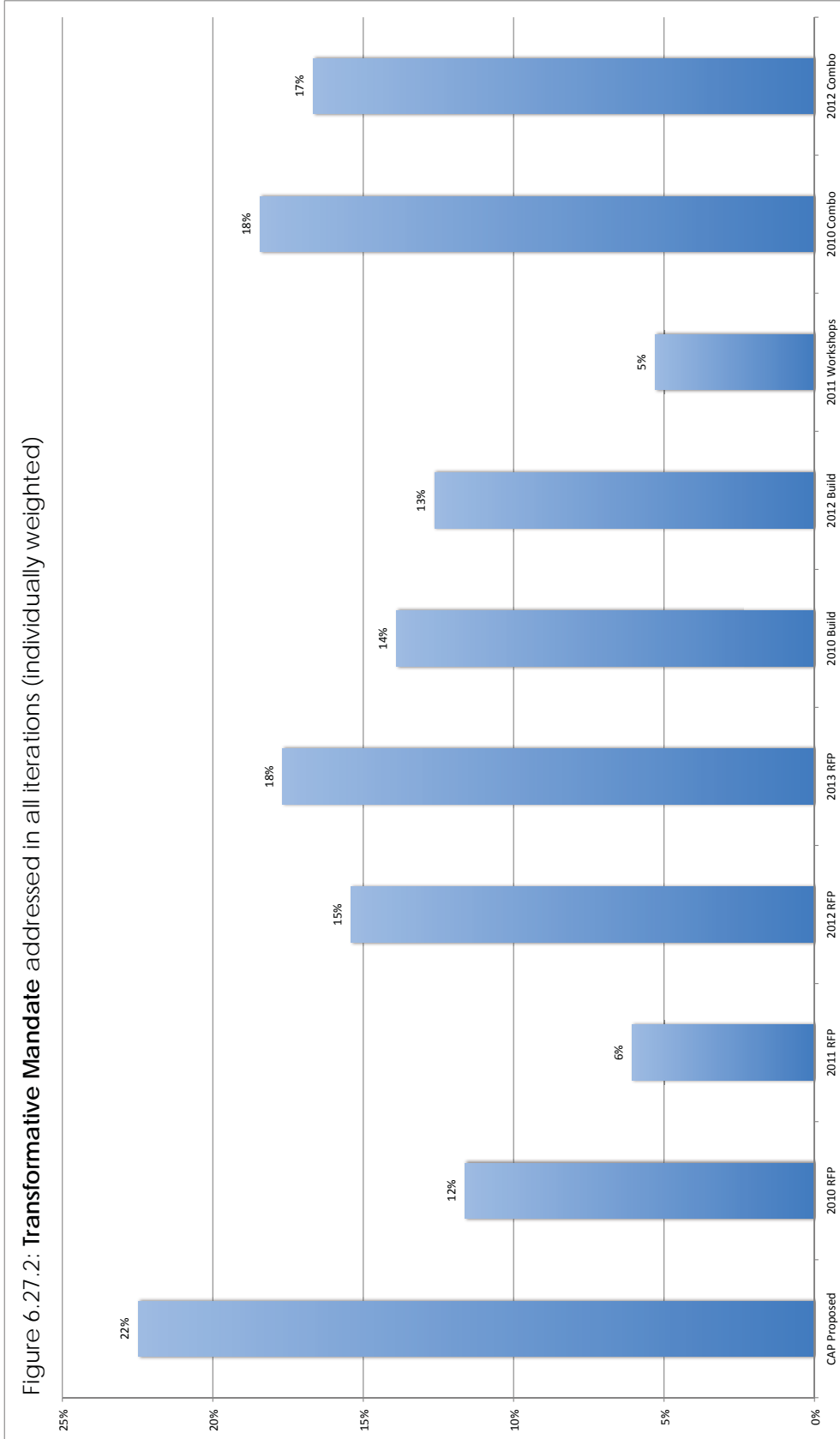


Figure 6.27.1: Transformative Mandate addressed in all iterations detail (proportionally weighted)





6.4.3. Tri-sectoral balance

Inherent to the phenomenon of informal urbanism is an imbalance of power between government, civil society and community. For the architectural profession to engage in the discourse, its position within this power balance is to be investigated and clearly stated: in service of government, or as facilitator between stakeholders or in solidarity with communities, thereby augmenting skills capacity in opposition to government. An understanding of where the initiative for upgrade resides -government authority, NGO, academics or rights-based activists - is required prior to undertaking an engagement in the context. Consideration of the imbalance of power has been investigated from the following perspectives:

- o *Disjuncture between policy and implementation*
- o *Institutional support of social processes*
- o *Institutional position of architectural profession in terms of upgrade*

The CAP methodology *Making Community Map* was found to address the key factor of *Tri-Sectoral Balance* most effectively over the extent of the study period in proportion to all the key factors, focusing on the *Complete Base Map* as well as the documentation of the dwelling typologies. The *Documentation of Key Information* and *Set of Actions and Related Tasks* are similar in their proportional importance, following on the community map (Table 6.17; Figure 6.28). Viewed separately, the *Tri-sectoral Balance of Power* was addressed most successfully during the 2013 RFP module and the combined view of the 2010 RFP module with the subsequent upgrade of the community hall (Figures 6.29; 6.29.1; 6.29.2).

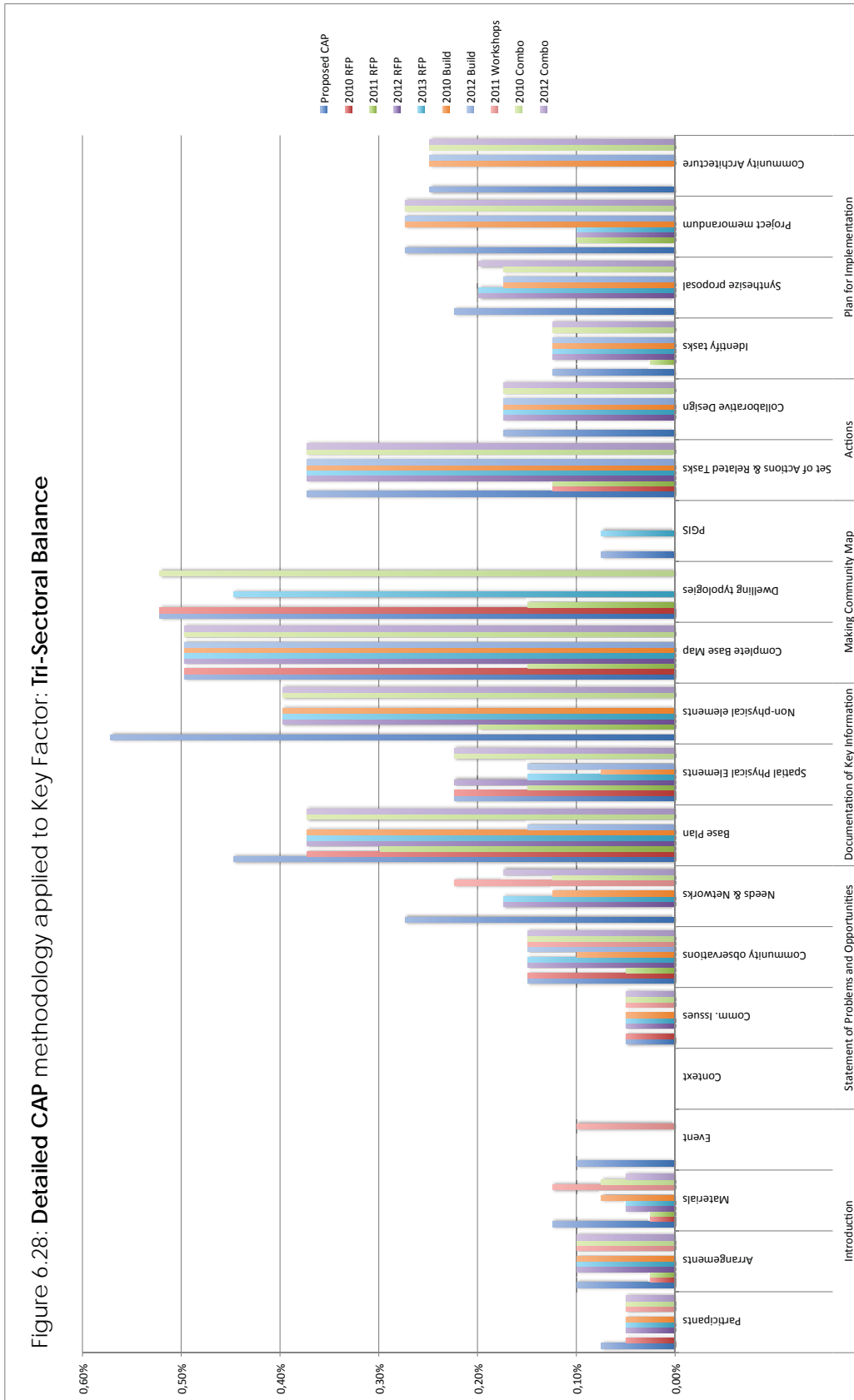
Tentative introduction to the resident community of Alaska and threliance on desktop analysis contributed to the poor understanding of the tri-sectoral power balance displayed during the 2011 iteration. Significantly, both subsequent studios achieved considerably higher results following on the upgrade of the hall undertaken in 2010 as well as the workshop series in 2011. More rigorous alignment between the studio and theory ensured greater focus on the CAP methodology, as well as increasing the consciousness of power relations between informal settlements and the formal system. Documentation by the Socio Economic Rights Institute (Tissington 2011) outlining the contestation for justice in Slovo Park was introduced as a resource, impacting on the socio-political understanding of the context. From these results it can therefore be ascertained that there was a marked increase in the ability of students to address the tri-sectoral imbalance prevailing in the condition of informal urbanism.

Significantly, the physical implementation of the hall upgrades impacted on the first engagement in 2010 but does not indicate a great improvement over the academic module in 2013. This would indicate that the rigorous application of CAP methodology serves as a platform of engagement that can be applied with similar success to an academically based module or in conjunction with a physical implementation project in order to address the key factor of *Tri-sectoral Balance* of power.

Table 6.17 Detailed CAP methodology applied to Key Factor: Transformative Mandate

	Introduction				Statement of Problems and Opportunities				Documentation of Key Information			Making Community Map			Actions		Plan for Implementation			
	Participants	Arrangements	Materials	Event	Context	Comm. Issues	Community Observations	Needs & Networks	Base Plan	Spatial Physical Elements	Non-physical elements	Complete Base Map	Dwelling Typologies	PGIS	Set of Actions & Related Tasks	Collaborative Design	Identify tasks	Synthesize proposal	Project memorandum	Community Architect
Proposed CAP	0,07%	0,10%	0,12%	0,10%	0,00%	0,05%	0,15%	0,27%	0,45%	0,22%	0,57%	0,50%	0,52%	0,07%	0,37%	0,17%	0,12%	0,22%	0,27%	0,25%
2010 RFP	0,05%	0,02%	0,02%	0,00%	0,00%	0,05%	0,15%	0,00%	0,37%	0,22%	0,00%	0,50%	0,52%	0,00%	0,12%	0,00%	0,00%	0,00%	0,00%	0,00%
2011 RFP	0,00%	0,02%	0,02%	0,00%	0,00%	0,00%	0,05%	0,00%	0,30%	0,15%	0,20%	0,15%	0,15%	0,00%	0,12%	0,00%	0,00%	0,00%	0,10%	0,00%
2012 RFP	0,05%	0,10%	0,05%	0,00%	0,00%	0,05%	0,15%	0,17%	0,37%	0,22%	0,40%	0,50%	0,00%	0,00%	0,37%	0,17%	0,12%	0,20%	0,10%	0,00%
2013 RFP	0,05%	0,10%	0,05%	0,00%	0,00%	0,05%	0,15%	0,17%	0,37%	0,15%	0,40%	0,50%	0,45%	0,07%	0,37%	0,17%	0,12%	0,20%	0,10%	0,00%
2010 Build	0,05%	0,10%	0,07%	0,00%	0,00%	0,05%	0,10%	0,12%	0,37%	0,07%	0,40%	0,50%	0,00%	0,00%	0,37%	0,17%	0,12%	0,17%	0,27%	0,25%
2012 Build	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,15%	0,00%	0,15%	0,15%	0,00%	0,50%	0,00%	0,00%	0,37%	0,17%	0,12%	0,17%	0,27%	0,25%
2011 Workshops	0,05%	0,10%	0,12%	0,10%	0,00%	0,05%	0,15%	0,22%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%
2010 Combo	0,05%	0,10%	0,07%	0,00%	0,00%	0,05%	0,15%	0,12%	0,37%	0,22%	0,40%	0,50%	0,52%	0,00%	0,37%	0,17%	0,12%	0,17%	0,27%	0,25%
2012 Combo	0,05%	0,10%	0,05%	0,00%	0,00%	0,05%	0,15%	0,17%	0,37%	0,22%	0,40%	0,50%	0,00%	0,00%	0,37%	0,17%	0,12%	0,20%	0,27%	0,25%

Tri-Sectoral Balance



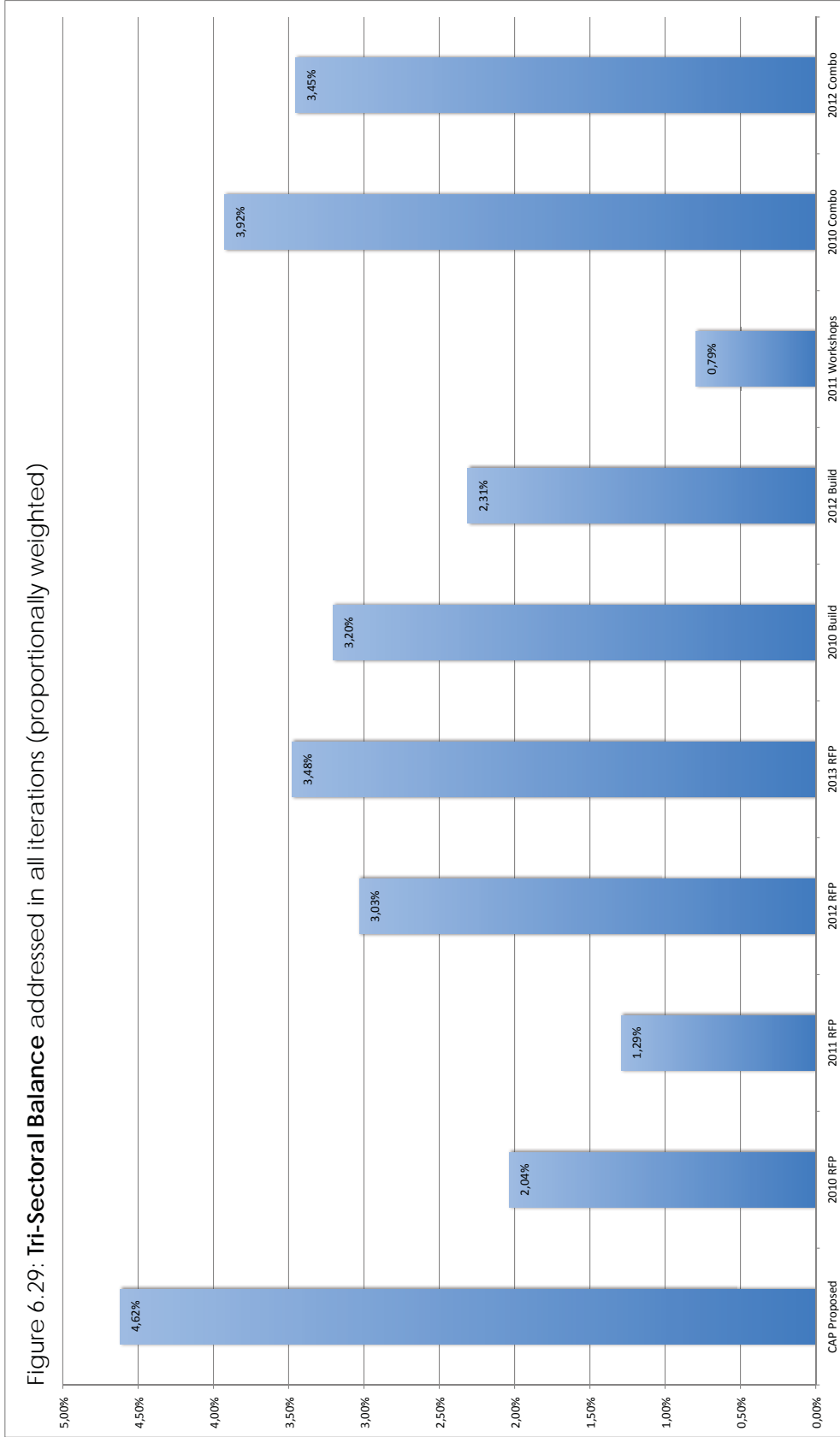
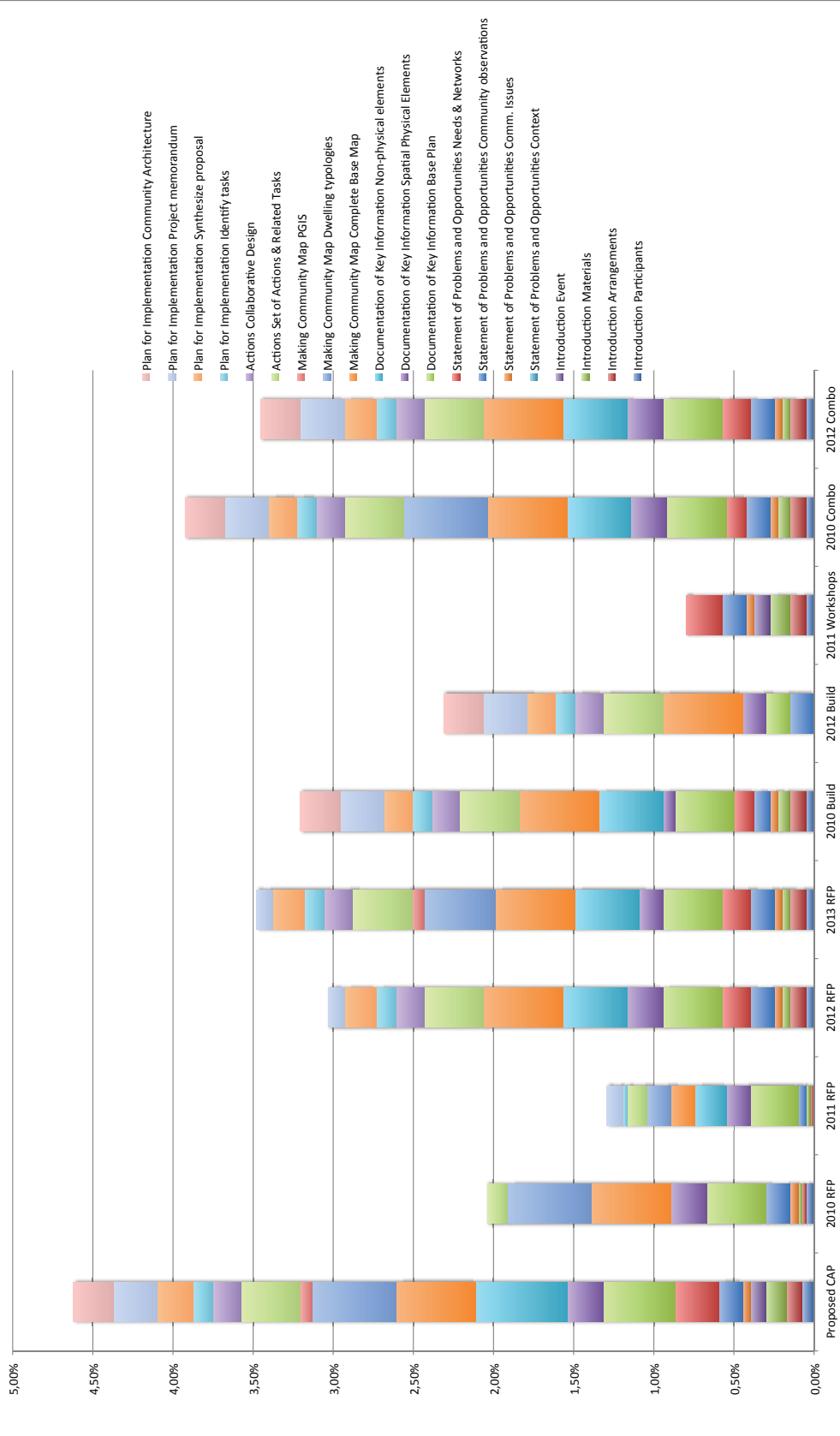
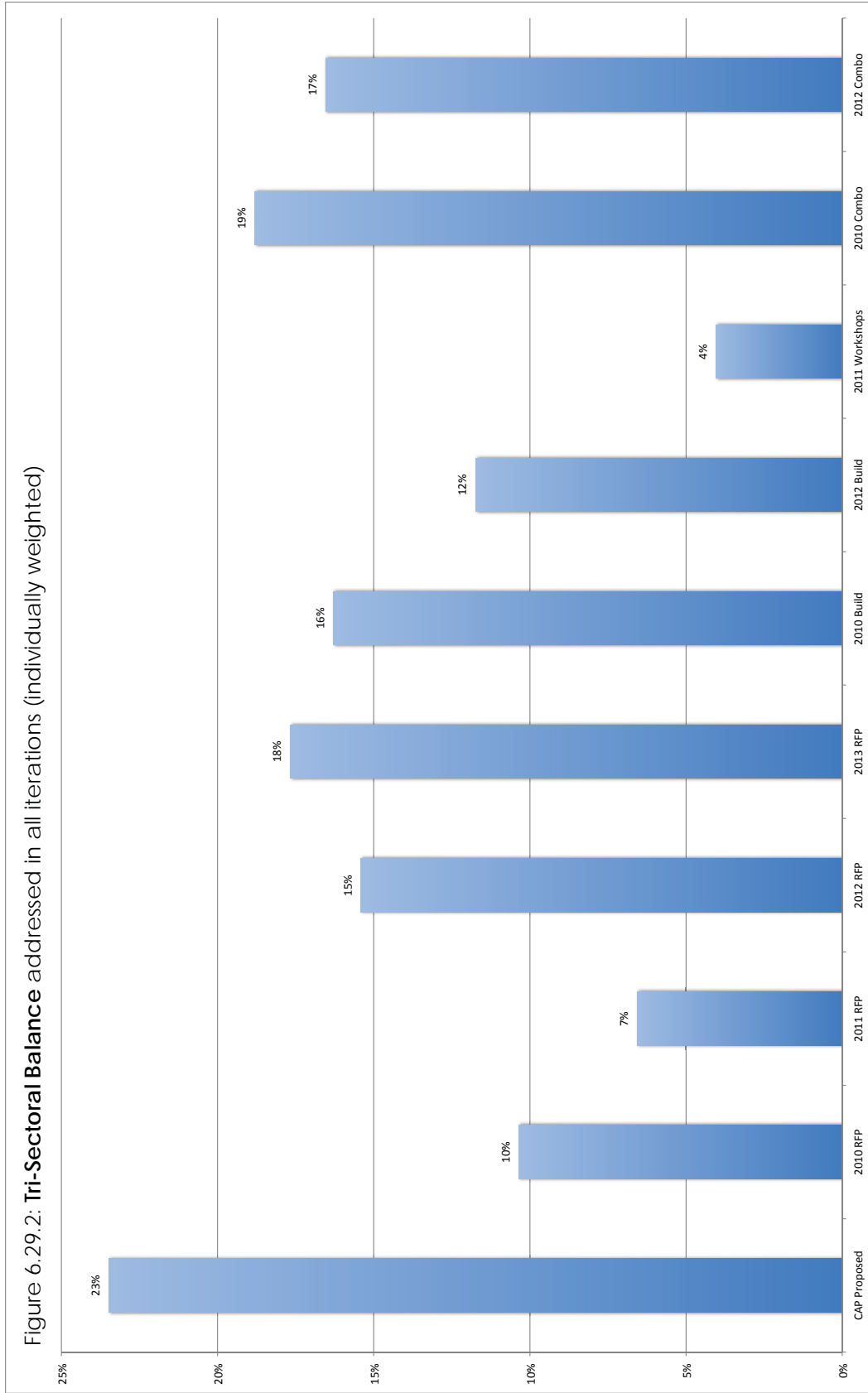


Figure 6.29.1: Tri-Sectoral Balance addressed in all iterations (proportionally weighted)





6.4.4. Tenure security

In terms of tenure security, a clear understanding is required regarding the statutory arrangements characterized by informal urbanism. Here it is important for the profession to grapple with its own legitimacy and institutional authority. An understanding is required regarding the potential and limitations of the capital subsidy system, the appropriateness of national, municipal or local building regulations and standards as well as the legal position implied by operating in extra-legal conditions. The role, responsibility and professional accountability of the profession in such a context require unpacking and clarification. The following concerns were therefore taken into consideration:

- o *Incremental tenure security*
- o *Capital subsidy system as vehicle for upgrade*
- o *Architectural contribution bound into capital subsidy system*
- o *Legislative constraint of building standards*
- o *Restructuring of capital subsidy to effect transformation*

In the CAP methodology, the issue of *Tenure Security* is addressed most successfully over the extent of the study period by way of the *Documentation of Dwelling Typologies* included in *Making Community Map*, followed by the *Base Plan* in the *Documentation of Key Information* (Table 6.18; Figure 6.30). Seen on its own, it is clear that *Tenure Security* was most effectively addressed during the 2013 iteration of the RFP module, and in the combined view of the 2010 iteration (Figures 6.31; 6.31.1; 6.31.2).

During 2011, the CAP processes were not applied rigorously, specifically omitting in-depth participation by the resident community. An over reliance on visual observation therefore resulted in a poor understanding of the issue of tenure security. The increased rigour of applying the CAP method as a requirement stated in the student brief underpinning the subsequent RFP modules clearly indicates an improvement in the ability of students to engage with the issue of tenure security during the following two iterations.

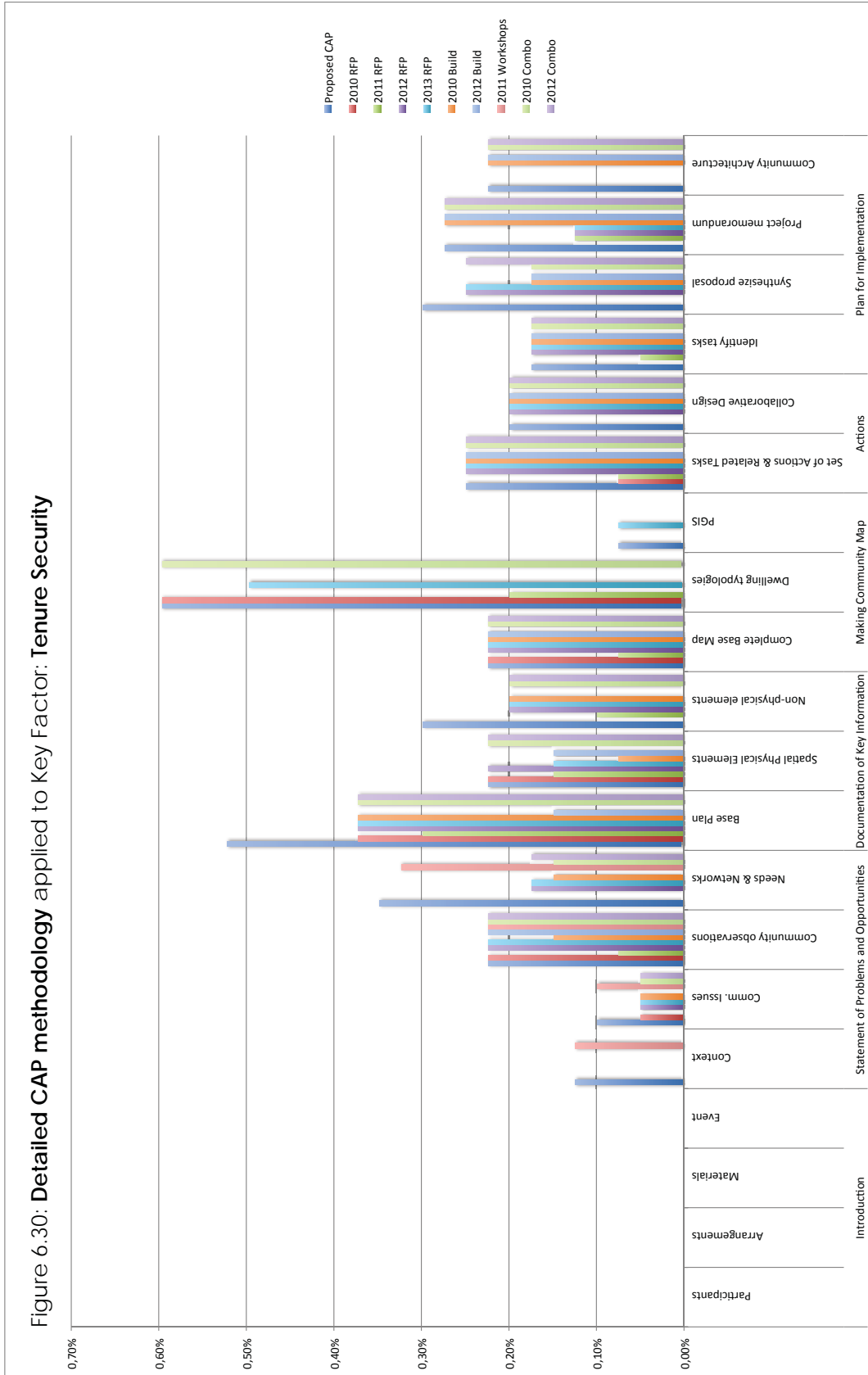
A greater improvement is noted in 2010 through the physical implementation of the hall upgrade than in 2012. This can be attributed to the fact that the application of CAP methods was better established in 2012 than in 2010, so that the platform of engagement did not

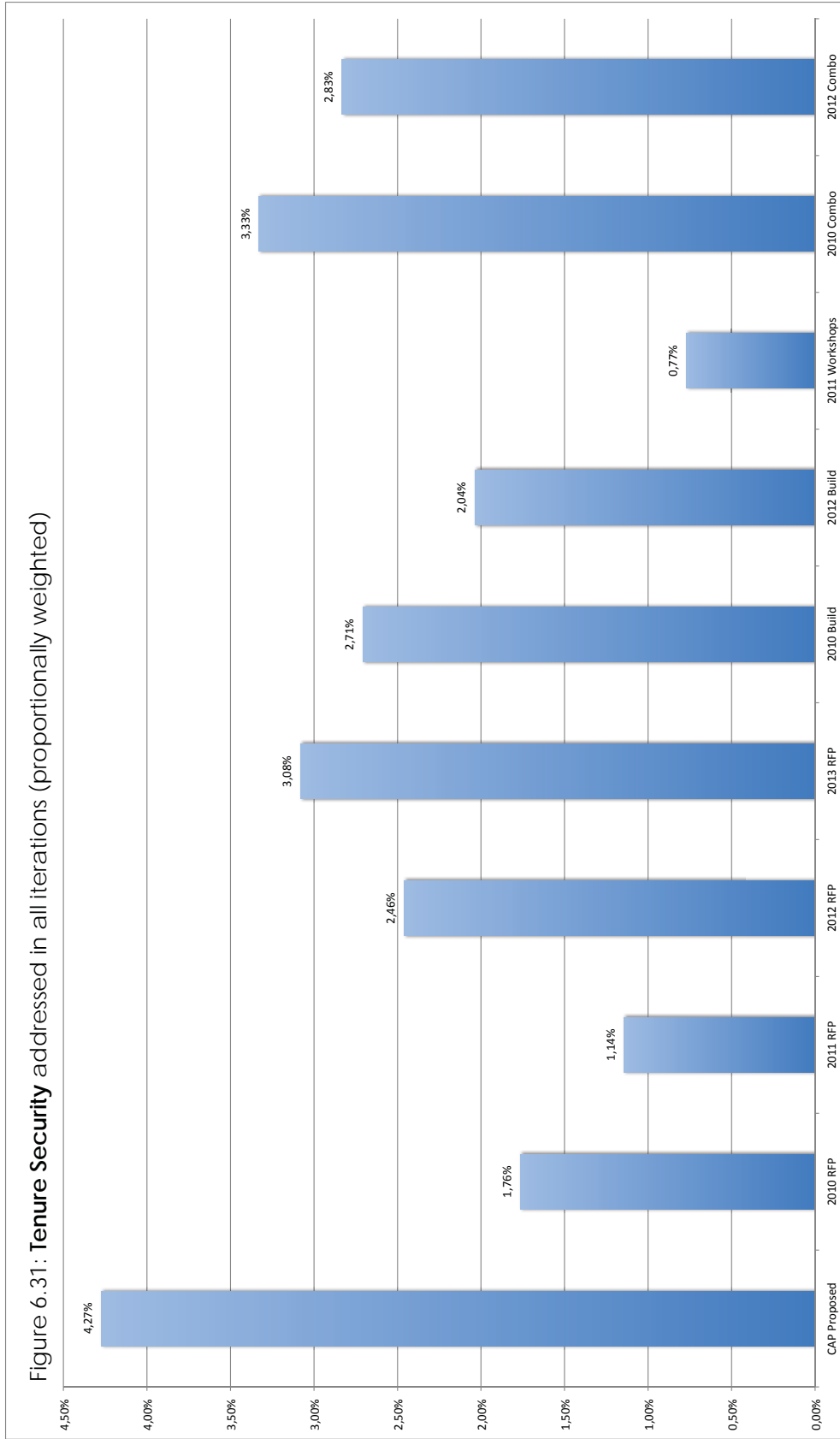
change dramatically with the implementation of the construction during 2012. The fact that there was a better result achieved in the 2013 iteration without physical implementation than during the combination of the module and the hall upgrade in 2012, serves as an indication that CAP methods could be adequately assimilated and applied during the research and design module in terms of addressing the issue of *Tenure Security*.

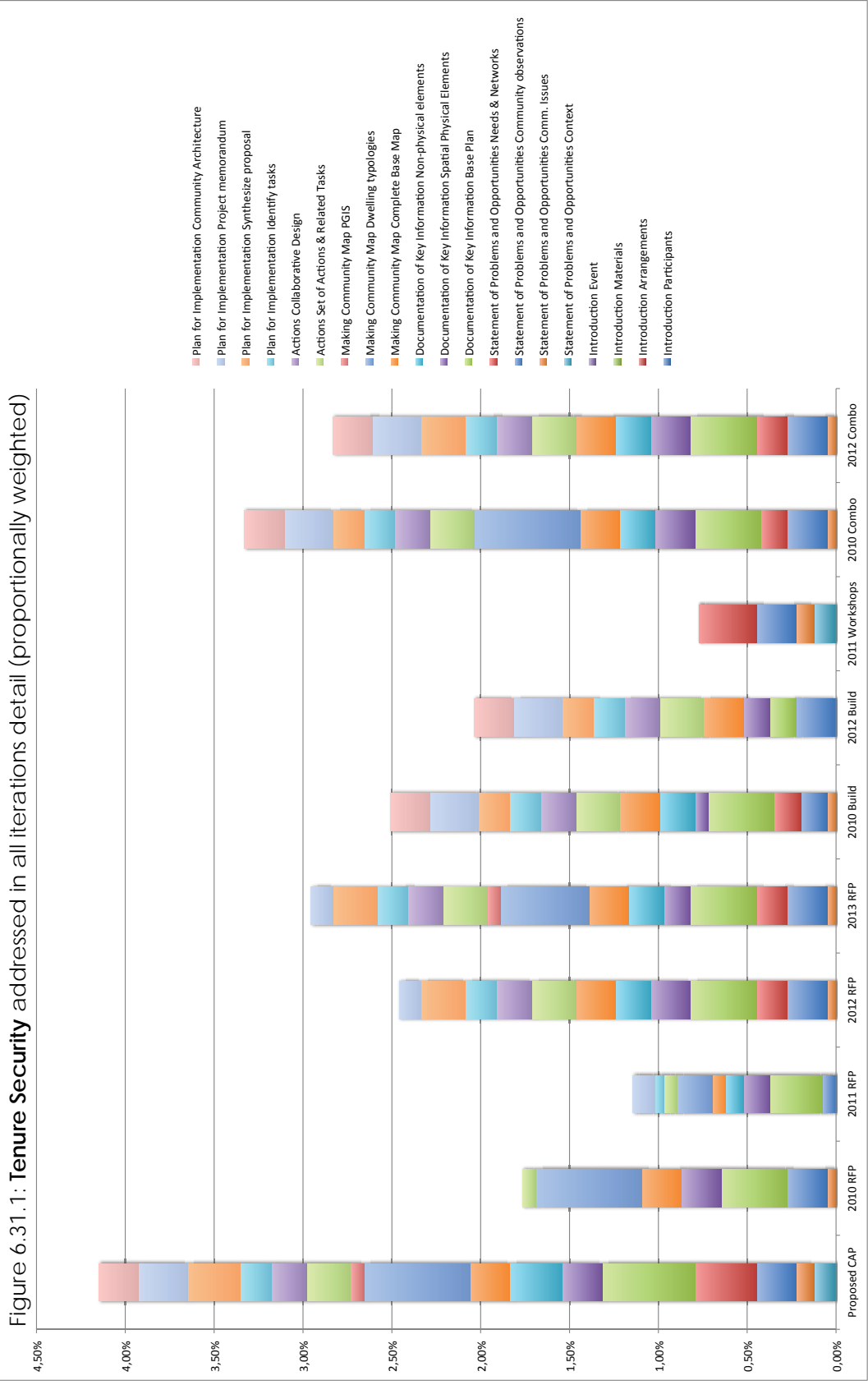
Table 6.18 Detailed CAP methodology applied to Key Factor: Transformative Mandate

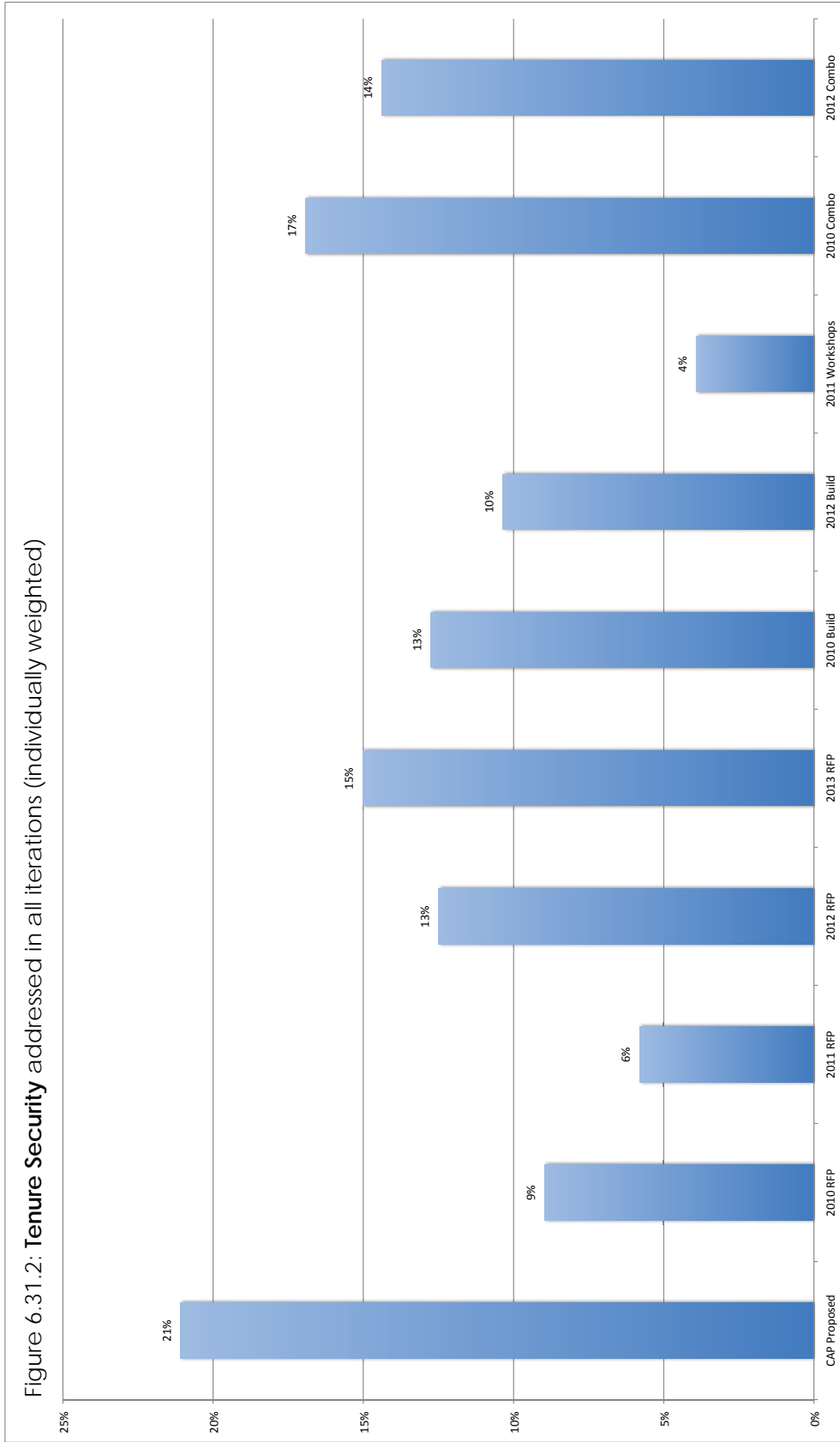
	Introduction				Statement of Problems and Opportunities				Documentation of Key Information			Making Community Map			Actions		Plan for Implementation			
	Participants	Arrangements	Materials	Event	Context	Comm. Issues	Community observations	Needs & Networks	Base Plan	Spatial Physical Elements	Non-physical elements	Complete Base Map	Dwelling typologies	PGIS	Set of Actions & Related Tasks	Collaborative Design	Identify tasks	Synthesize proposal	Project memorandum	Community Architect
Proposed CAP	0,00%	0,00%	0,00%	0,00%	0,12%	0,10%	0,22%	0,35%	0,52%	0,22%	0,30%	0,22%	0,60%	0,07%	0,25%	0,20%	0,17%	0,30%	0,27%	0,22%
2010 RFP	0,00%	0,00%	0,00%	0,00%	0,00%	0,05%	0,22%	0,00%	0,37%	0,22%	0,00%	0,22%	0,60%	0,00%	0,07%	0,00%	0,00%	0,00%	0,00%	0,00%
2011 RFP	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,07%	0,00%	0,30%	0,15%	0,10%	0,07%	0,20%	0,00%	0,07%	0,00%	0,05%	0,00%	0,12%	0,00%
2012 RFP	0,00%	0,00%	0,00%	0,00%	0,00%	0,05%	0,22%	0,17%	0,37%	0,22%	0,20%	0,22%	0,00%	0,00%	0,25%	0,20%	0,17%	0,25%	0,12%	0,00%
2013 RFP	0,00%	0,00%	0,00%	0,00%	0,00%	0,05%	0,22%	0,17%	0,37%	0,15%	0,20%	0,22%	0,50%	0,07%	0,25%	0,20%	0,17%	0,25%	0,12%	0,00%
2010 Build	0,00%	0,00%	0,00%	0,00%	0,00%	0,05%	0,15%	0,15%	0,37%	0,07%	0,20%	0,22%	0,00%	0,00%	0,25%	0,20%	0,17%	0,17%	0,27%	0,22%
2012 Build	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,22%	0,00%	0,15%	0,15%	0,00%	0,22%	0,00%	0,00%	0,25%	0,20%	0,17%	0,17%	0,27%	0,22%
2011 Workshops	0,00%	0,00%	0,00%	0,00%	0,12%	0,10%	0,22%	0,32%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%
2010 Combo	0,00%	0,00%	0,00%	0,00%	0,00%	0,05%	0,22%	0,15%	0,37%	0,22%	0,20%	0,22%	0,60%	0,00%	0,25%	0,20%	0,17%	0,17%	0,27%	0,22%
2012 Combo	0,00%	0,00%	0,00%	0,00%	0,00%	0,05%	0,22%	0,17%	0,37%	0,22%	0,20%	0,22%	0,00%	0,00%	0,25%	0,20%	0,17%	0,25%	0,27%	0,22%

Tenure security









6.4.5. Participation

Participatory processes impact on issues of authorship and collaboration at various levels, from participatory research to the development of action plans, urban design frameworks and collaborative design. This poses one of the most challenging components of the discourse, as the design process itself becomes a vehicle either of empowerment or authoritarian control. Participation is therefore seen as a key factor in the discourse on informal settlement upgrade, which has been considered from the following perspectives:

- *Public participation in informal settlement upgrade*
- *Participatory research*
- *Collaborative design*
- *Participatory urban management*

The CAP methodology is aimed explicitly at participation between all stakeholders, yet appears to be weighted in terms of the key factors addressed over the study period in favour of the *Introduction* and the *Statement of Problems and Opportunities*, with specific focus on the *Arrangements* and *Community Observations* (Table 6.19; Figure 6.32). Viewed proportionally to all the key factors under consideration, the highest levels of satisfaction were achieved during the 2010 combination between RFP and project implementation, followed by the 2013 iteration of the RFP module. However, when viewed on its own terms, the 2013 RFP module achieves a higher level of satisfaction regarding the issue of *Participation* (Figures 6.33; 6.33.1; 6.33.2).

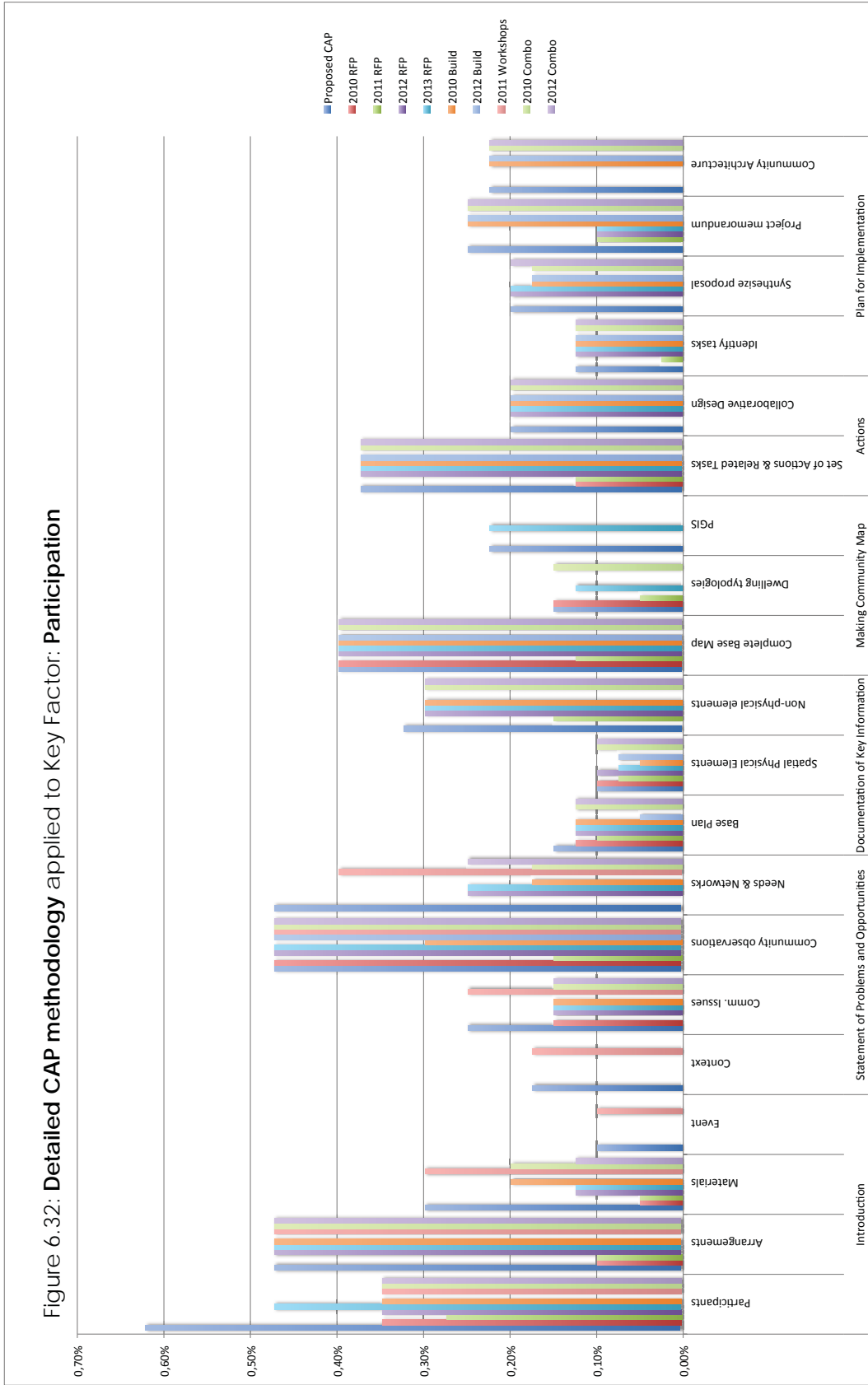
The levels of participation increased substantially between 2011 and 2012, with a small but notable increase during 2013. The clarity of the instructions to the students as well as ensuring timeously scheduled interactions with the community contributed to this increase. Following on the workshops conducted in Slovo Park during the latter half of 2011, the identification of active networks in the community was included. This enabled the students to associate with more stratified groupings within the settlements instead of viewing the community as amorphous, contributing greatly to an ability to navigate the intersection between the collective and individual. Collaborative design augmented the CAP methodology from 2012 and serves as an important platform to address the key factor of participation.

A marked increase in awareness and attention to participative processes can be seen in 2010 between the first level of engagement and the subsequent upgrade of the hall. The galvanising impact of a shared goal inherent in the physical implementation of the hall upgrade contributed to this improvement regarding participation. The results of the 2012 combination between research and design followed by physical implementation results in a similar outcome as the academic module on its own in 2013. This indicates that the rigorous application of CAP methodology within the RFP 721 module may address the issue of *Participation* as successfully as when the process culminates in a physical implementation project.

Table 6.19 Detailed CAP methodology applied to Key Factor: Participation

	Introduction				Statement of Problems and Opportunities				Documentation of Key Information			Making Community Map			Actions		Plan for Implementation			
	Participants	Arrangements	Materials	Event	Context	Comm. Issues	Community observations	Needs & Networks	Base Plan	Spatial Physical Elements	Non-physical elements	Complete Base Map	Dwelling typologies	PGIS	Set of Actions & Related Tasks	Collaborative Design	Identify tasks	Synthesize proposal	Project memorandum	Community Architect
Proposed CAP	0,62%	0,47%	0,30%	0,10%	0,17%	0,25%	0,47%	0,47%	0,15%	0,10%	0,32%	0,40%	0,15%	0,22%	0,37%	0,20%	0,12%	0,20%	0,25%	0,22%
2010 RFP	0,35%	0,10%	0,05%	0,00%	0,00%	0,15%	0,47%	0,00%	0,12%	0,10%	0,00%	0,40%	0,15%	0,00%	0,12%	0,00%	0,00%	0,00%	0,00%	0,00%
2011 RFP	0,27%	0,10%	0,05%	0,00%	0,00%	0,00%	0,15%	0,00%	0,10%	0,07%	0,15%	0,12%	0,05%	0,00%	0,12%	0,00%	0,02%	0,00%	0,10%	0,00%
2012 RFP	0,35%	0,47%	0,12%	0,00%	0,00%	0,15%	0,47%	0,25%	0,12%	0,10%	0,30%	0,40%	0,00%	0,00%	0,37%	0,20%	0,12%	0,20%	0,10%	0,00%
2013 RFP	0,47%	0,47%	0,12%	0,00%	0,00%	0,15%	0,47%	0,25%	0,12%	0,07%	0,30%	0,40%	0,12%	0,22%	0,37%	0,20%	0,12%	0,20%	0,10%	0,00%
2010 Build	0,35%	0,47%	0,20%	0,00%	0,00%	0,15%	0,30%	0,17%	0,12%	0,05%	0,30%	0,40%	0,00%	0,00%	0,37%	0,20%	0,12%	0,17%	0,25%	0,22%
2012 Build	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,47%	0,00%	0,05%	0,07%	0,00%	0,40%	0,00%	0,00%	0,37%	0,20%	0,12%	0,17%	0,25%	0,22%
2011 Workshops	0,35%	0,47%	0,30%	0,10%	0,17%	0,25%	0,47%	0,40%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%
2010 Combo	0,35%	0,47%	0,20%	0,00%	0,00%	0,15%	0,47%	0,17%	0,12%	0,10%	0,30%	0,40%	0,15%	0,00%	0,37%	0,20%	0,12%	0,17%	0,25%	0,22%
2012 Combo	0,35%	0,47%	0,12%	0,00%	0,00%	0,15%	0,47%	0,25%	0,12%	0,10%	0,30%	0,40%	0,00%	0,05%	0,37%	0,20%	0,12%	0,20%	0,25%	0,22%

Participation



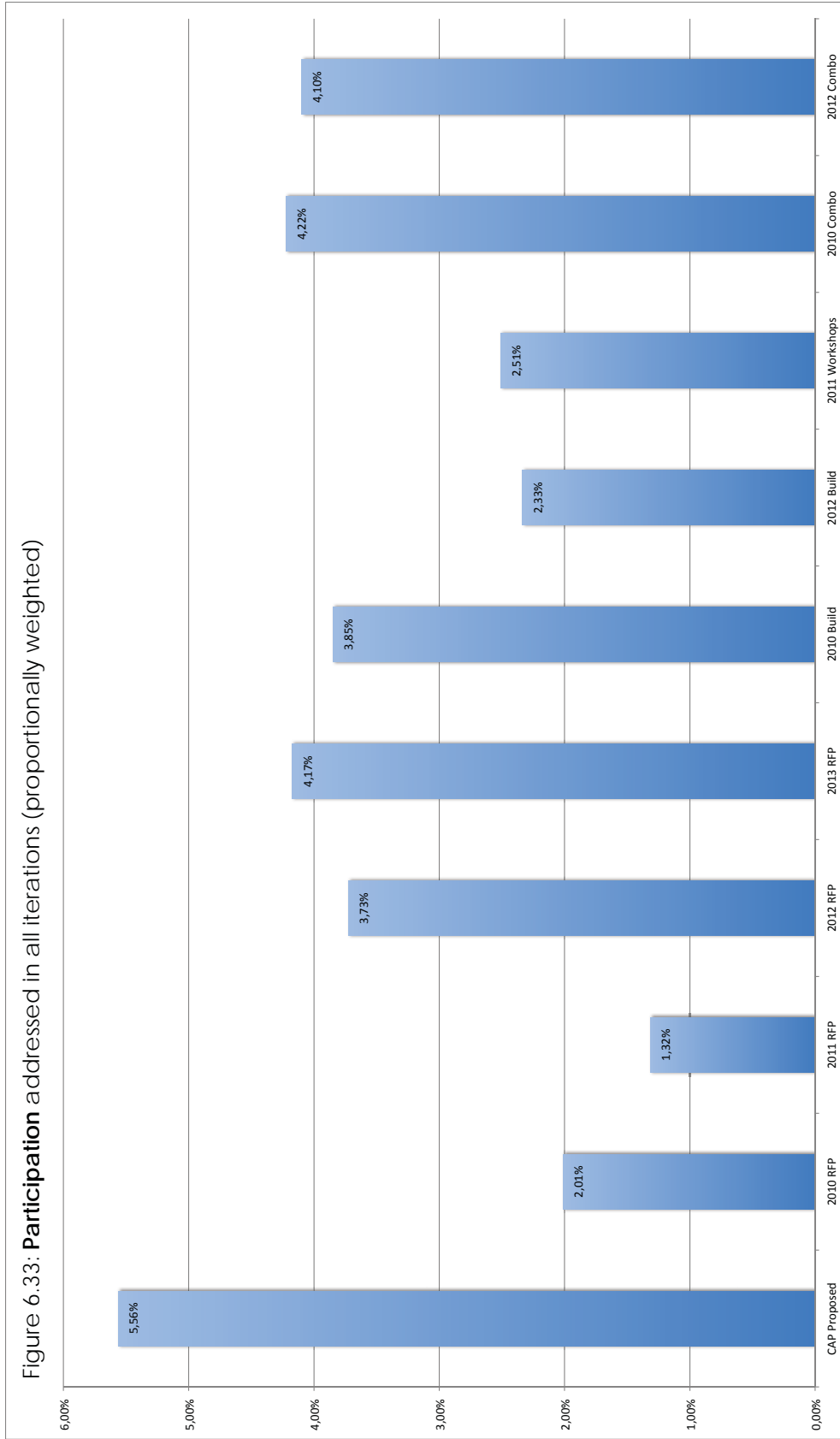
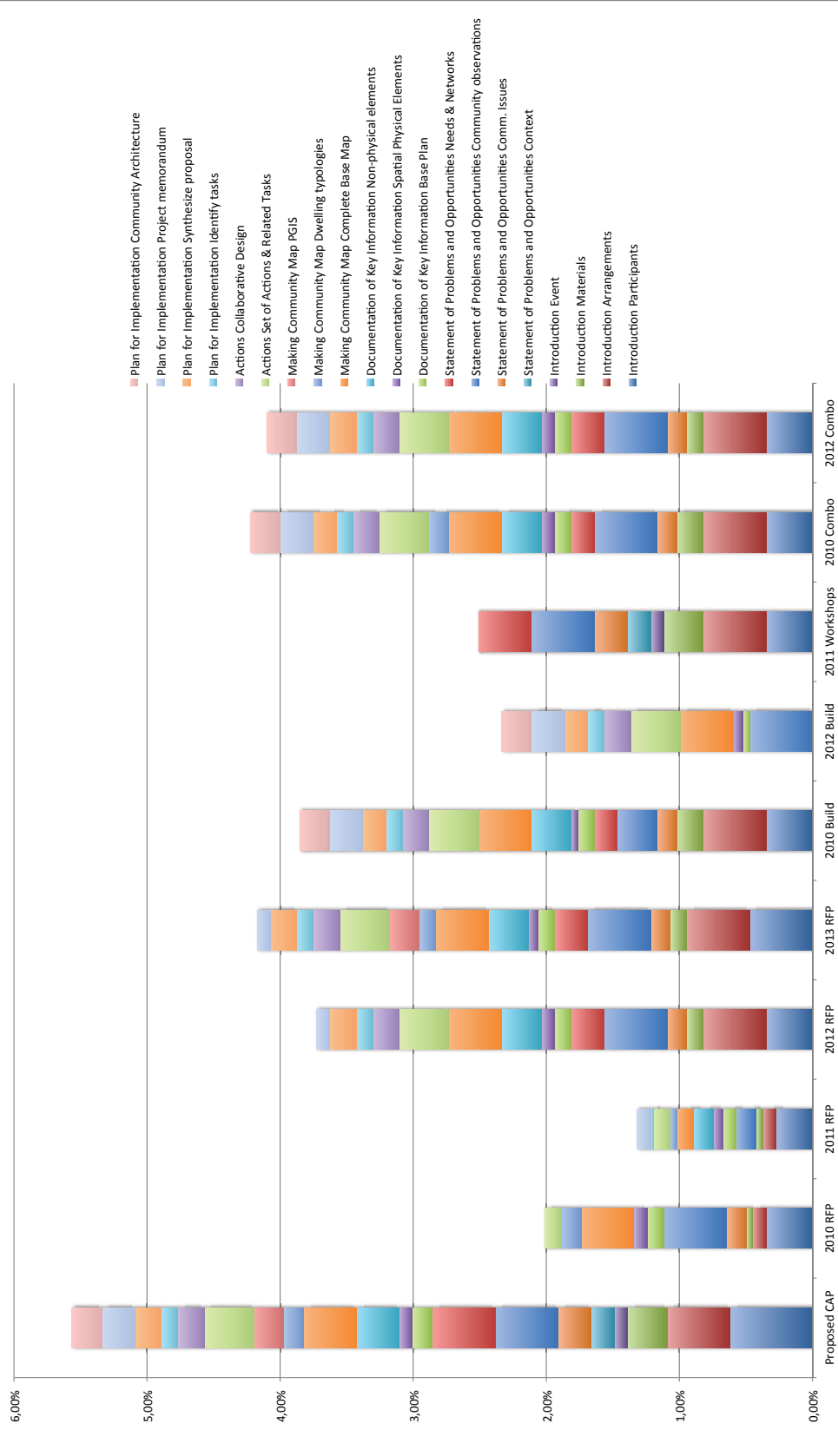
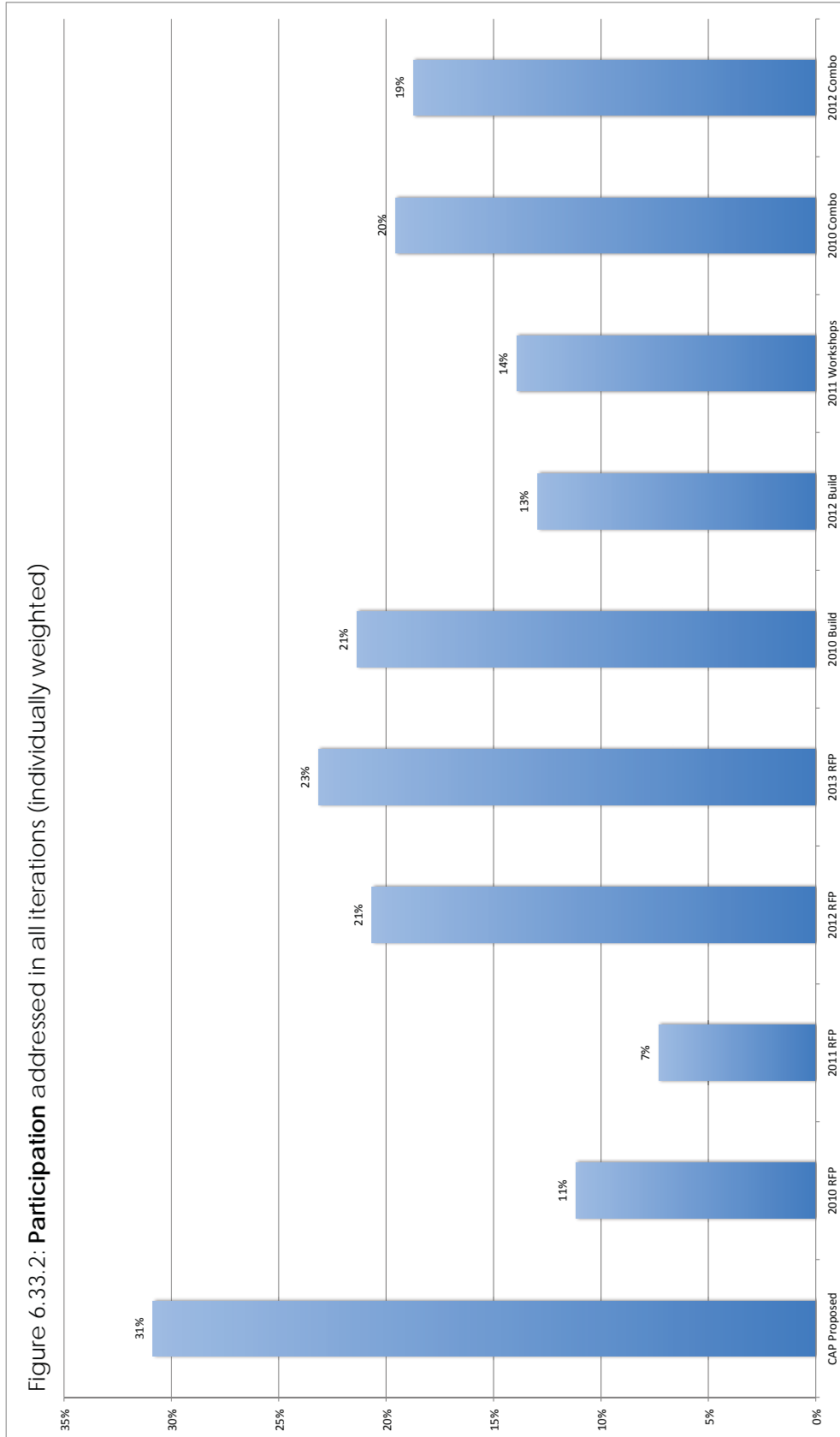


Figure 6.33.1: Participation addressed in all iterations detail (proportionally weighted)





6.4.6. Role of architects

In order to address the role undertaken by architects in the discourse, an understanding of current and historical contributions from the profession is required. Critical reflection on strategies or omission from the discourse is needed in order to build a consciousness and enforce a politicized debate. Especially in the educational realm, it becomes imperative to stimulate discussion in order to establish a position regarding transformation, both of the profession itself as well as of the social condition supporting informal urbanism. Debate in terms of mandatory engagement as opposed to voluntary activism is required, from where a position regarding the discourse may be proposed. The role of architects has therefore been considered in the following terms:

- *Historical precedent of architectural involvement in informal settlement upgrade*
- *Potential space for architectural intervention*
- *Appropriate strategies for architectural intervention*
- *Potential for social activism through architectural engagement*

From the study overview, it is apparent that the CAP methodologies focused on the *Complete Base Map* within *Making Community Map* and *Set of Actions and related Tasks* contributed most significantly towards addressing the key factor of the *Role of Architects* (Table 6.20; Figure 6.34). Not surprisingly, the augmentation measures of *Collaborative Design* and especially *Community Architecture* also make marked contributions towards addressing this issue. Due to the inclusion of *Community Architecture* in the physical implementation undertaken during 2010 and 2012, it has been found that the *Role of Architects* seen on its own is therefore addressed most successfully during those iterations, followed by the 2013 iteration of the RFP module (Figures 6.35; 6.35.1; 6.35.2).

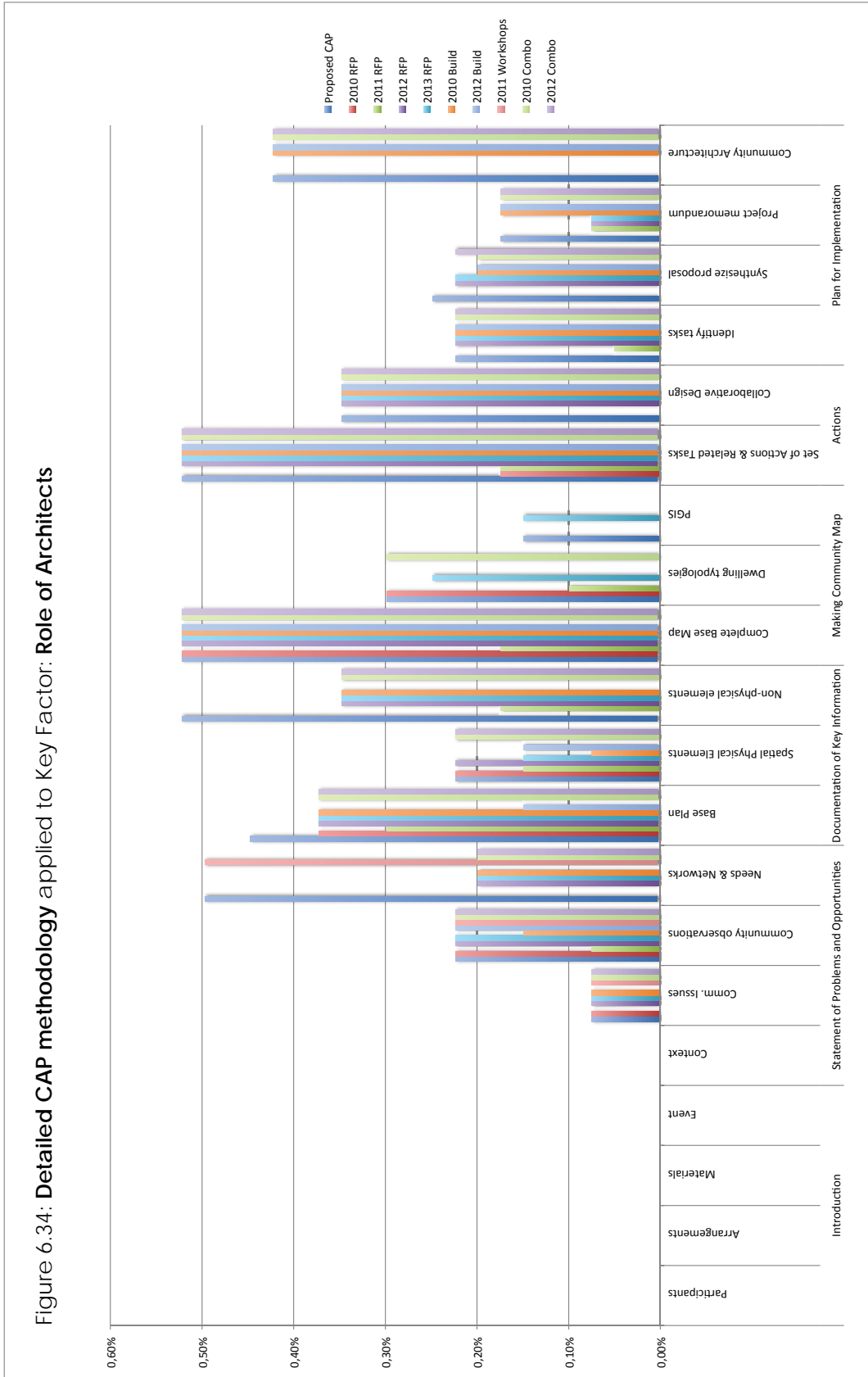
Once again, a marked increase can be seen in the RFP iterations of 2012 and 2013 from those of the preceding years. The stronger focus on an alignment between research and analysis inherent in the CAP methods of *Documentation of Key Information* and *Making Community Map* with the design resolution inherent in *Plan for Implementation* impacted on an increased awareness of the potential architectural contribution to the contextual concerns. The relationship between the urban design framework and individual proposed interventions was

framed within an understanding of the social networks and support of livelihood strategies within the settlement. Clarity in the student brief as well as theoretical alignment contributed to an improved application of CAP methodology and subsequent ability to address the issue of the *Role of Architects* in the discourse on informal settlement upgrade.

Although there is a marked increase during 2010 between the first engagement and the hall upgrade, the physical implementation registered a decrease in 2012. Clearly the founding preparation undertaken in 2012 benefitted from more rigorous application of CAP methods, thereby making the difference between the theoretical product and the physical implementation less significant. The outcome of the 2010 and 2012 combined studios register higher results than the 2013 iteration, where no physical implementation occurred. For this reason it can be ascertained that the *Role of Architects* can be more successfully addressed when the studio work culminates in a physical implementation of a built project.

Table 6.20 Detailed CAP methodology applied to Key Factor: Role of Architects

Role of Architects	Introduction				Statement of Problems and Opportunities				Documentation of Key Information			Making Community Map			Actions		Plan for Implementation			
	Participants	Arrangements	Materials	Event	Context	Comm. Issues	Community Observations	Needs & Networks	Base Plan	Spatial Physical Elements	Non-physical elements	Complete Base Map	Dwelling typologies	PGIS	Set of Actions & Related Tasks	Collaborative Design	Identify tasks	Synthesize proposal	Project memorandum	Community Architecture
Proposed CAP	0,00%	0,00%	0,00%	0,00%	0,00%	0,07%	0,22%	0,50%	0,45%	0,22%	0,52%	0,52%	0,30%	0,15%	0,52%	0,35%	0,22%	0,25%	0,17%	0,42%
2010 RFP	0,00%	0,00%	0,00%	0,00%	0,00%	0,07%	0,22%	0,00%	0,37%	0,22%	0,00%	0,52%	0,30%	0,00%	0,17%	0,00%	0,00%	0,00%	0,00%	0,00%
2011 RFP	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,07%	0,00%	0,30%	0,15%	0,17%	0,17%	0,10%	0,00%	0,17%	0,00%	0,05%	0,00%	0,07%	0,00%
2012 RFP	0,00%	0,00%	0,00%	0,00%	0,00%	0,07%	0,22%	0,20%	0,37%	0,22%	0,35%	0,52%	0,00%	0,00%	0,52%	0,35%	0,22%	0,22%	0,07%	0,00%
2013 RFP	0,00%	0,00%	0,00%	0,00%	0,00%	0,07%	0,22%	0,20%	0,37%	0,15%	0,35%	0,52%	0,25%	0,15%	0,52%	0,35%	0,22%	0,22%	0,07%	0,00%
2010 Build	0,00%	0,00%	0,00%	0,00%	0,00%	0,07%	0,15%	0,20%	0,37%	0,07%	0,35%	0,52%	0,00%	0,00%	0,52%	0,35%	0,22%	0,20%	0,17%	0,42%
2012 Build	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,22%	0,00%	0,15%	0,15%	0,00%	0,52%	0,00%	0,00%	0,52%	0,35%	0,22%	0,20%	0,17%	0,42%
2011 Workshops	0,00%	0,00%	0,00%	0,00%	0,00%	0,07%	0,22%	0,50%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%
2010 Combo	0,00%	0,00%	0,00%	0,00%	0,00%	0,07%	0,22%	0,20%	0,37%	0,22%	0,35%	0,52%	0,30%	0,00%	0,52%	0,35%	0,22%	0,20%	0,17%	0,42%
2012 Combo	0,00%	0,00%	0,00%	0,00%	0,00%	0,07%	0,22%	0,20%	0,37%	0,22%	0,35%	0,52%	0,00%	0,00%	0,52%	0,35%	0,22%	0,22%	0,17%	0,42%



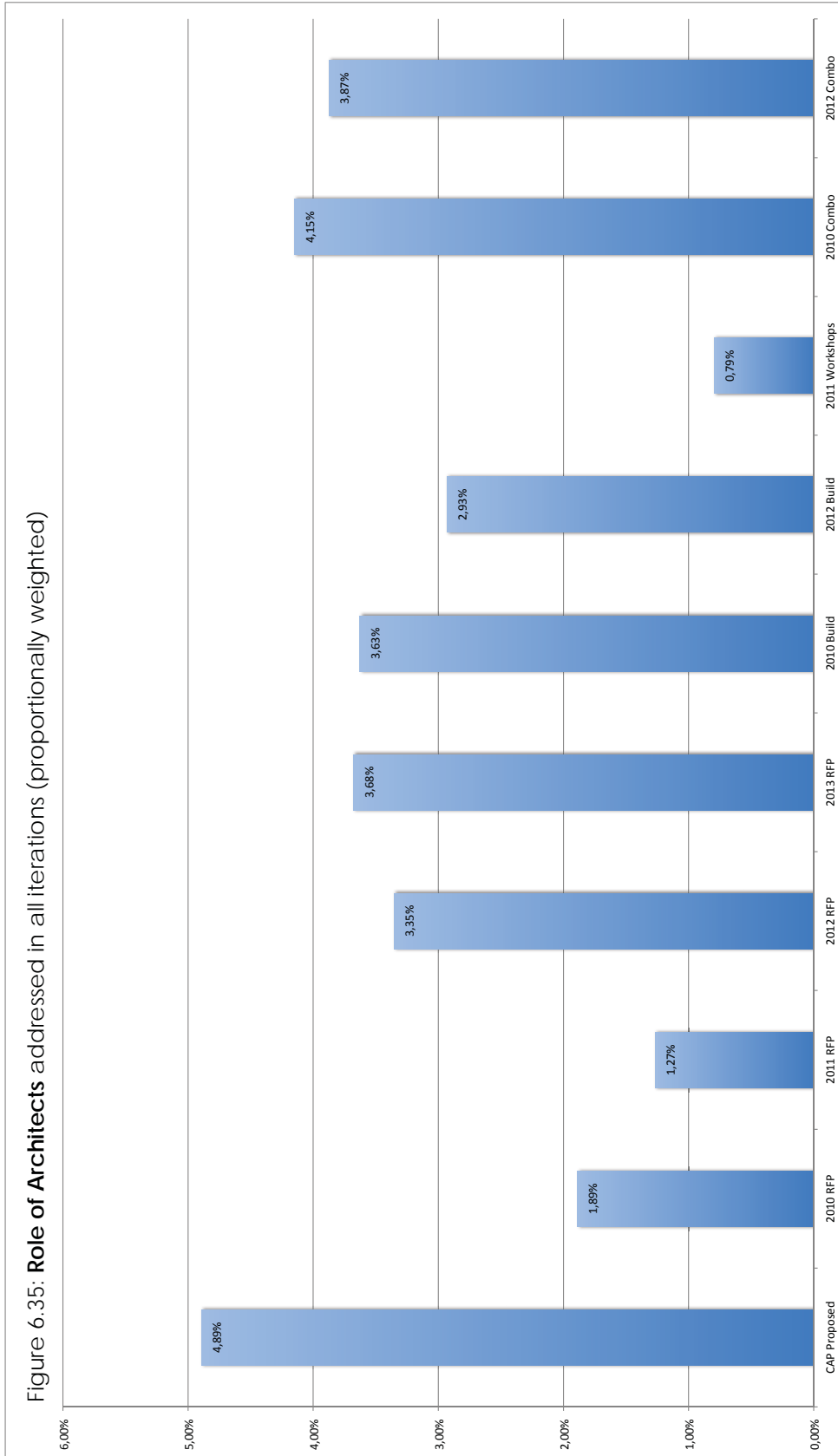
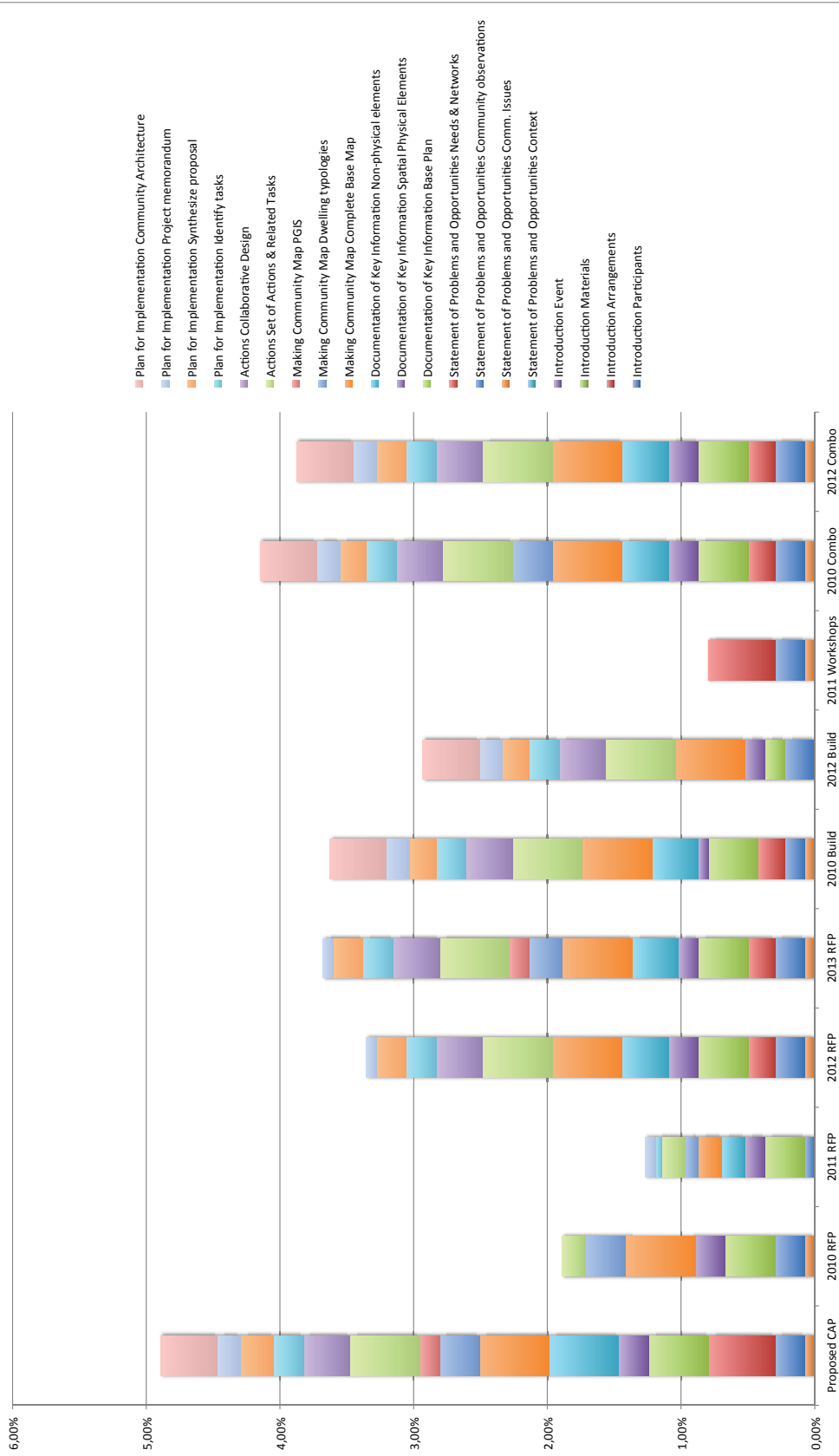
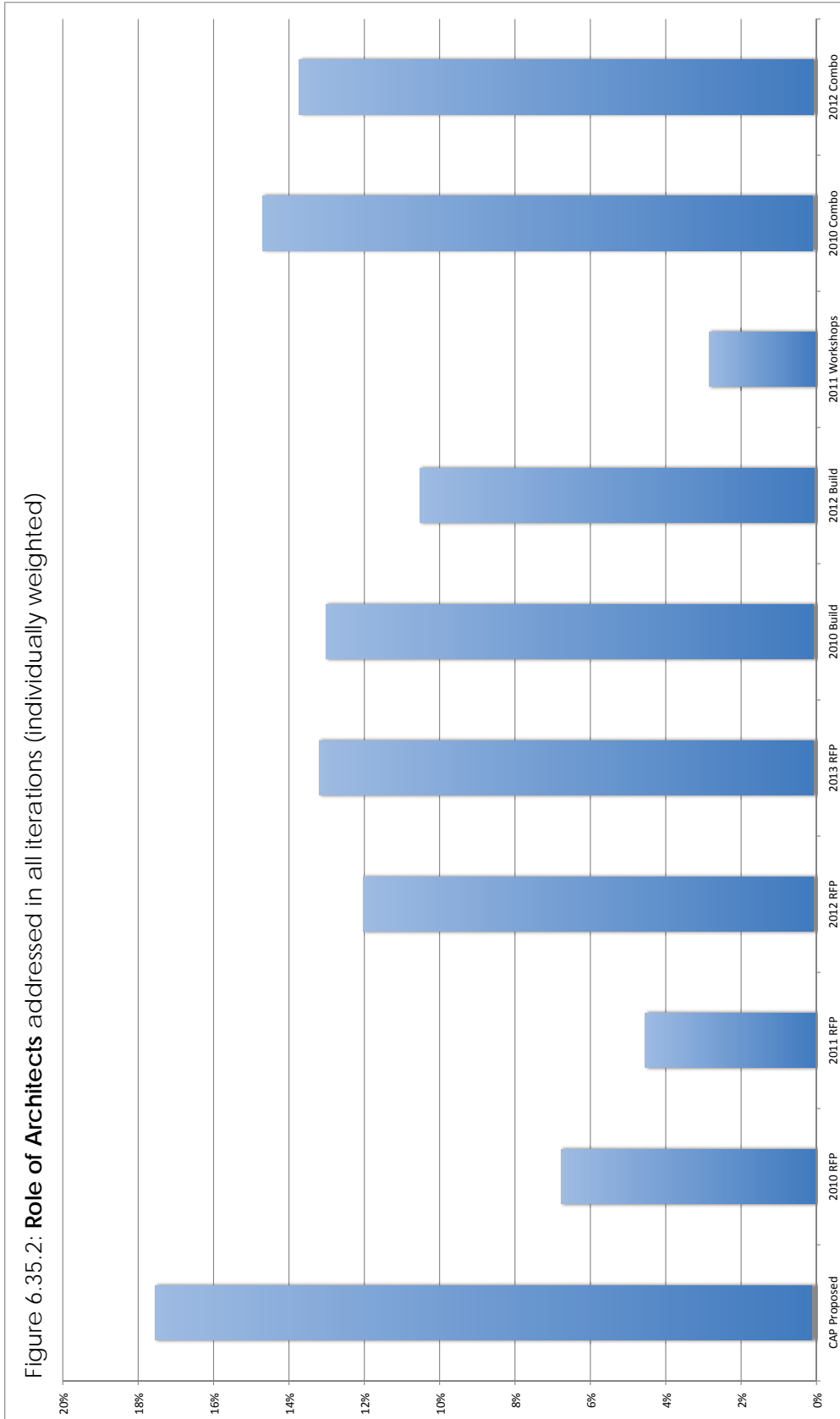


Figure 6.35. 1: Role of Architects addressed in all iterations detail (proportionally weighted)





6.5. Conclusion

In this chapter, the findings emanating from the case study investigated in chapter five have been discussed. Application of the CAP methodology as described in chapter four during consecutive iterations of an academic module in the honours programme at the Department of Architecture, University of Pretoria, has been considered in terms of the key factors contributing to the marginality of the architectural profession in the discourse on informal urbanism.

Iterations of the academic module occurred at two sites of engagement, namely Slovo Park informal settlement in Johannesburg and Alaska informal settlement in Pretoria. Circumstances impacting on these interactions have been considered, including the primary introduction to the residents of the settlements, the structure of the student brief and schedule, as well as the theoretical support offered to the students.

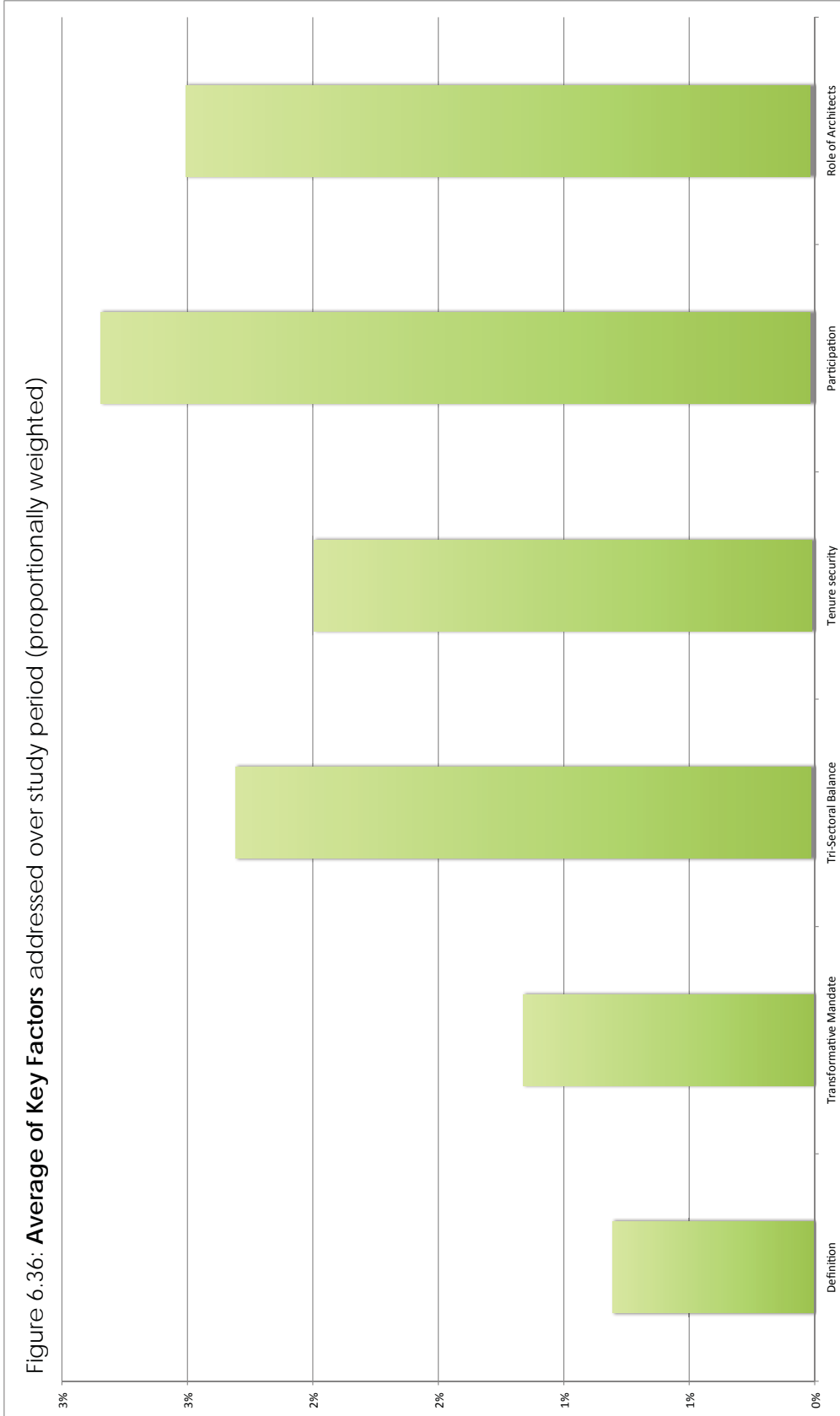
The greatest success in terms of addressing the key factors by application of CAP methods was registered during the combined engagement in 2010, when students and community members collectively elected to upgrade the existing community hall. The initial studio-based engagement can be considered to have been tentative in terms of its outcomes, but served to establish a research base that successfully informed the subsequent physical upgrading process. Similarly, the 2012 combination between studio and physical implementation registered a satisfactory application of CAP methodology (Figures 6.19; 6.19.1).

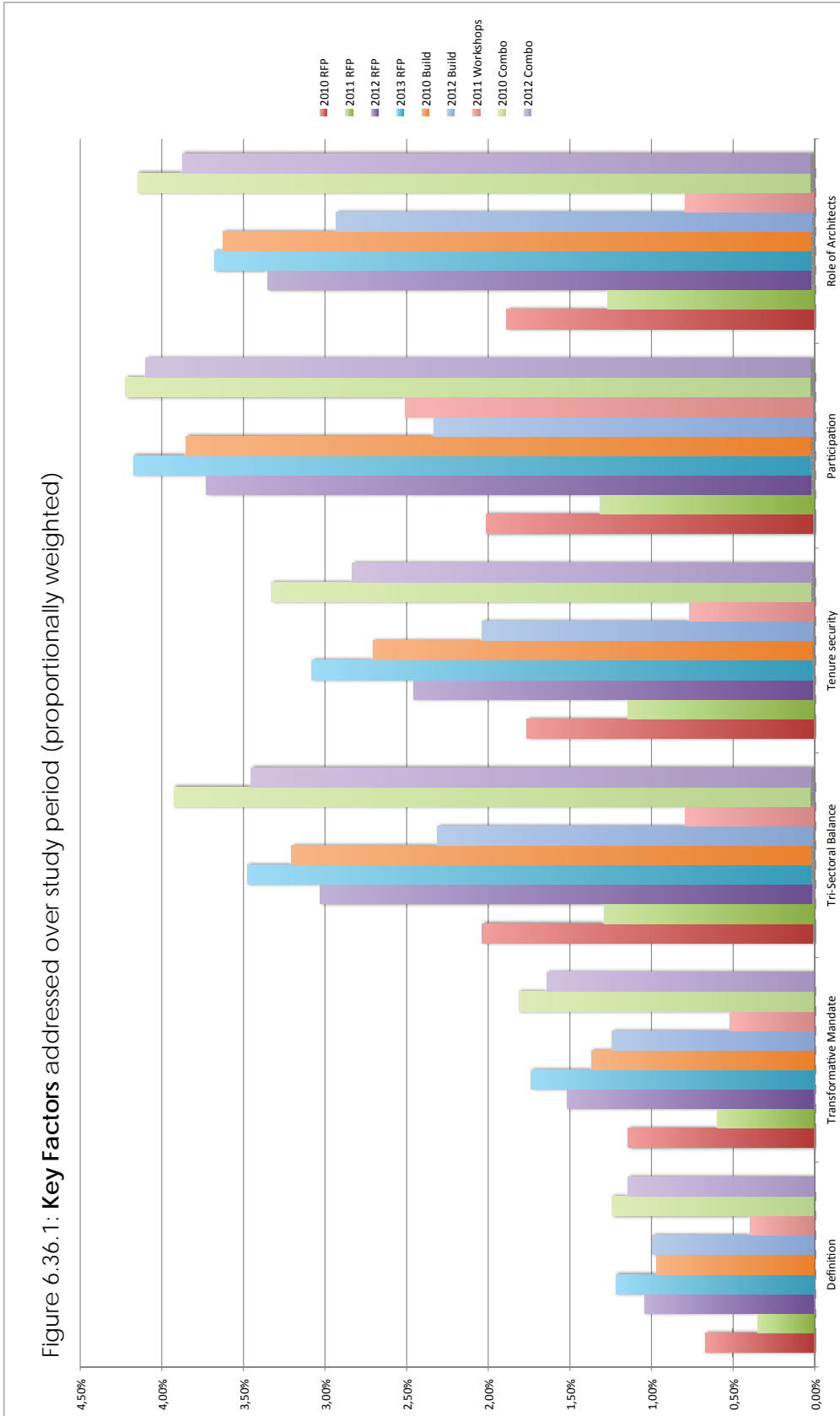
The studio module conducted in 2011 underperformed dramatically when seen in the light of the other iterations. This is ascribed to poor participation between students and resident community members. Although the introduction to the NGO *Viva Village* offered a convenient base from where the students could observe the settlement, no meaningful relationship could develop with any representatives of the social structures within Alaska. This undermined several of the methods suggested in CAP and disregards the fundamental tenet of the participatory processes supported in the CAP methodology.

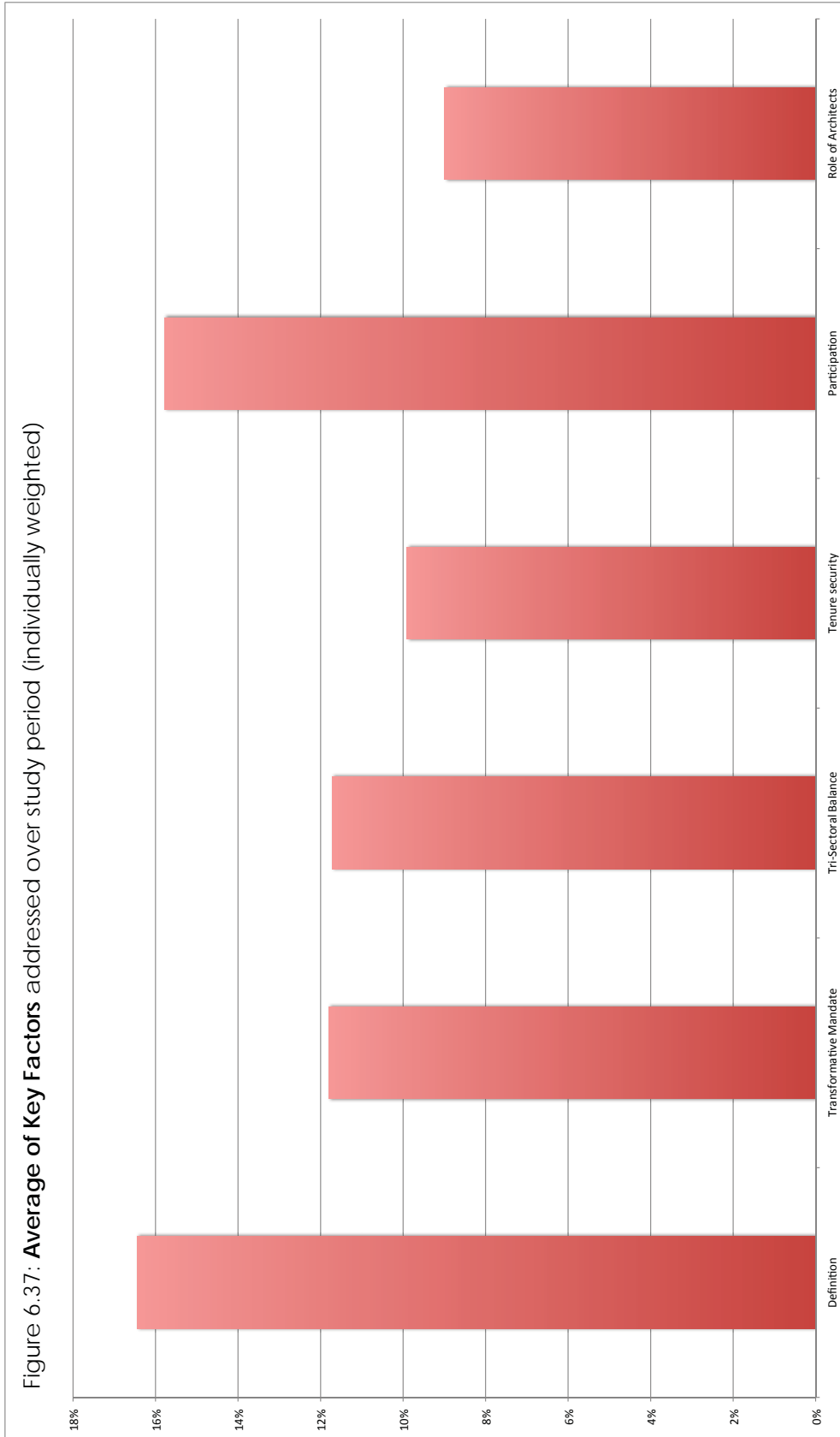
The marked improvements to the 2012 academic module and the consistent outcome of the 2013 module are influenced by the outcomes of the 2011 workshop, specifically in identifying

the importance of social networks as the organising structure active within the settlements, as well as the contribution by the previous participant in the 2010 engagement. From here the additional component of *collaborative planning* could be included as part of the studio module. Alignment between the studio module and its attending theoretical support is considered to have contributed especially to the socio-political consciousness of the students during the course of the engagement process. Ensuring that community workshops were included as part of the schedule right at the beginning of the module, with regular intervals of subsequent presentations and critical reflection, ensured that the participatory component of the module was enriched.

Over the extent of the study period, it was found that the key factors of *Participation* and *Role of Architects* were proportionally better addressed than the other key factors (Figures 6.36; 6.36.1), although an evaluation of the key factors addressed individually indicates that *Definition* is addressed to the same level of satisfaction as *Participation*, with the *Role of Architects* least successfully addressed (Figure 6.37). From this evaluation, it can be ascertained that the consistently highest level of success is achieved in addressing the key factor of *Participation*, whether weighted individually or proportionately.







Chapter 7

Conclusions and Recommendations

Given the harsh attacks on poor communities that have taken up litigation, should it not be formations of the middle class (financially and legally more cushioned) that, in proper solidarity with poor people's movements, take on more of the risks? This would relate not only to direct action, but also to a widening of the normative contestation over the urban future well beyond the dominant professional and middle-class ideas of aesthetically appealing mixed income eco-friendly developments (Huchzermeyer 2011:250)

7.1. Introduction

The main research question introduced in this thesis was to what extent it is possible to identify and address the key factors that contribute to the current marginality of the architectural profession in the discourse on informal settlement upgrade. This question required the investigation of three sub-questions:

Sub-question one:

Is the profession marginal to the discourse on informal settlement upgrade?

Sub-question two:

What are the key factors contributing to this marginality?

Sub-question three:

How can the factors contributing to this marginality be addressed?

Sub-question one was investigated by means of a literature review including an overview of South African and relevant international programmes and policies related to informal urbanism. In this review, the role undertaken by the architectural profession was considered in order to ascertain the extent of its significance in the discourse. The overview encompassed an exploration of the balance of power between the role players impacting on the phenomenon of informal urbanism, the significance of community participation in upgrade processes, as well as the impact of economic polarisation resulting from neoliberal policies. In order to seat the question within the professional ambit of architecture, the literature review included pertinent examples of architectural intervention in various approaches to informal settlement upgrade.

Following on the literature review, a meta-discourse ensued in which the key factors contributing to the marginality of the architectural profession were extrapolated in response to sub-question two. In order to corroborate this, semi-structured interviews were conducted with researchers and opinion-leaders in the South African context.

The concern of sub-question three was how the key factors identified in the preceding section could be addressed. This question was then explored by way of a case study in which action planning strategies proposed by Reinhardt Goethert and Nabeel Hamdi were applied to student work spanning a period of four years. A six week module at the honours level (4th

academic year) at the University of Pretoria Department of Architecture became the vehicle of iteration in which particular methods of engagement were applied to arrive at design proposals that were evaluated in terms of their appropriateness and responsiveness to the informal urban condition. The methods of engagement with the communities living in the informal settlements, the focus of student research as well as the design process contributed to addressing some of the factors elucidated in sub-question two. In addition to the six week module, small scale interventions such as those proposed by Hamdi (2004) were implemented and reflected upon to determine their efficacy in terms of addressing additional factors emanating from sub-question two. Due to the limited time available during the academic module, a separate workshop series was conducted in one of the informal settlements, in which a more exhaustive investigation of strategies emphasised by Hamdi (2010) could be undertaken.

Conclusions drawn from the research question will now be presented in this, chapter seven of the thesis.

7.2. Conclusions to sub-question one

Is the profession of architecture marginal to the discourse on informal settlement upgrade?

7.2.1. International overview

7.2.1.1. Policies and programmes

From the literature review it was found that there has been an international shift in policies related to informal urbanism from housing provision to enablement in the period following the Second World War and spanning into the new millennium (Keare 2001; Mansuri& Rao 2013;Pugh 2000). The wide spread destruction of the war coincided with philosophical ideals of social re-engineering, thereby offering opportunity to implement grandiose schemes of mass-produced housing at an unprecedented scale. Literature suggests, however, that such provision of housing was not able to successfully alleviate the problem and towards the 1990s, an increased number of development organisations and governments started adopting policies aimed at enabling the urban poor to address their housing needs in more creative ways (Jones 2011; Keare 2001; Werlin 1999). The influence of the World Bank and the United Nations, specifically UN Habitat, is found to have increased over this period of time as globalisation, mobility and urbanisation intensified. Literature indicates that initiatives supported by these international organisations often contributed to fundamental changes in government policies, often as a direct result of attempts at international alignment with development trends (Jones 2011; Mansuri& Rao 2013). Whereas the earlier part of the century was littered with policies supporting informal settlement eradication, there is increased evidence of policies and programmes that favour an *in-situ* upgrading approach. Debate on this issue is not conclusive, however, as the enablement component to the argument vacillates between *greenfields* development of sites and services to an incremental approach that can be accommodated on existing sites of occupation. More recently, UN Habitat has expressed the intention to move the focus further afield, beyond *upgrade* and *enablement* towards *anticipation*(TUM 2013). The full understanding or impact of this shift cannot be ascertained at this stage.

Certain policy shifts and development trends have been influenced by individual architects such as John FC Turner (1976), whose views on self-help housing impacted on the sites and services policies of the 1970s and early 1980s. Instances of individual professionals becoming visible in the policy discourse include Claudio Acioy who is visibly involved in developing policies of UNHabitat (TUM 2013). Locally, Professor Marie Huchzermeyer, originally a qualified Landscape Architect who is widely recognised for her work on informal settlements (Huchzermeyer 2011), contributed to much of the policy regarding the *in-situ* upgrade of informal settlements in South Africa (Napier 2013). Despite such individual examples, however, literature consulted does not reveal a strong presence of the profession in terms of policy writing, nor impact on shifts in policy.

Inversely, the departure from policies of provision to those of enablement has effectively undermined the potential role of architects in the housing landscape. Where welfare policies favoured the construction of large mass-housing projects, architects responded with enthusiastic fervour and with varying degrees of success. The philosophy of enablement, however, does not require the primary authorship of the architect, relying rather on the ingenuity, resources and creativity of the end-users themselves.

7.2.1.2. Balance of Power

The phenomenon of informal urbanism was found to reflect an imbalance of power between three sectors of influence: government, civil society and resident communities in informal settlements. In circumstances where the government assumes the role of provider, civil society is cast in the role of service provider to government and the community in the role of passive beneficiary, thereby establishing a top-down platform of decision making (Figure 7.1).

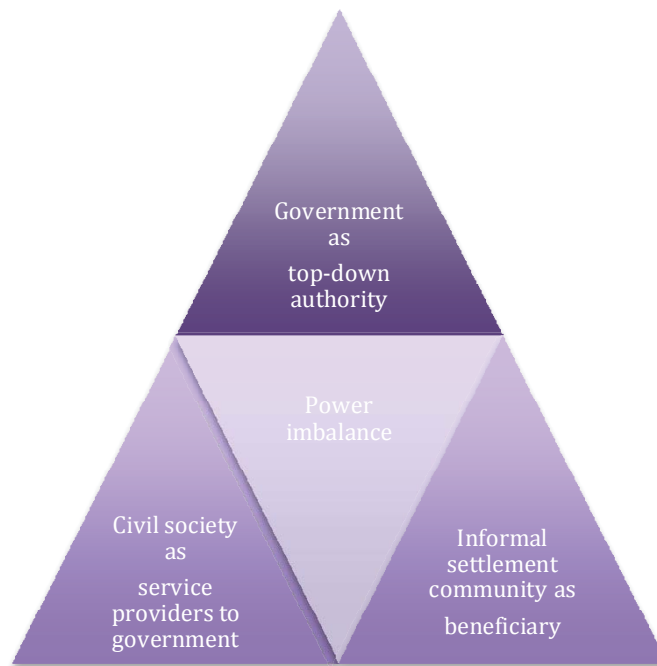


Figure 7.1: Power relations with government as top-down authority

Where civil society has assumed an activist role, the decision-making platform is shifted so that government is influenced in its position towards that of an enabler (Figure 7.2). This balances the power between government and civil society, but retains the community in the space of beneficiary.

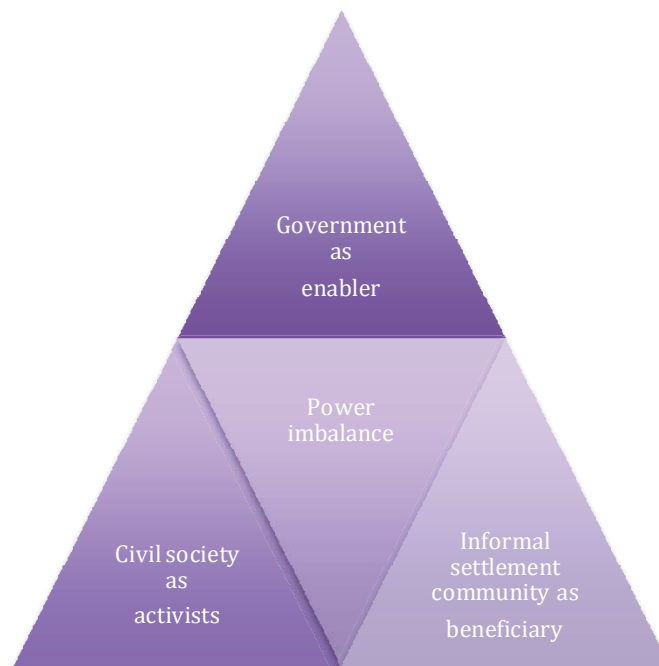


Figure 7.2: Power relations with activist role taken by civil society

In this scenario, civil society may be considered as a facilitator between government and community, but retains its position as *superior* to community, effectively occupying the seat of the gate-keeper to decision making.

In the third instance, resident communities assert their right to the decision making platform, either by way of making demands on government directly, or through the agency of civil society (Figure 7.3).

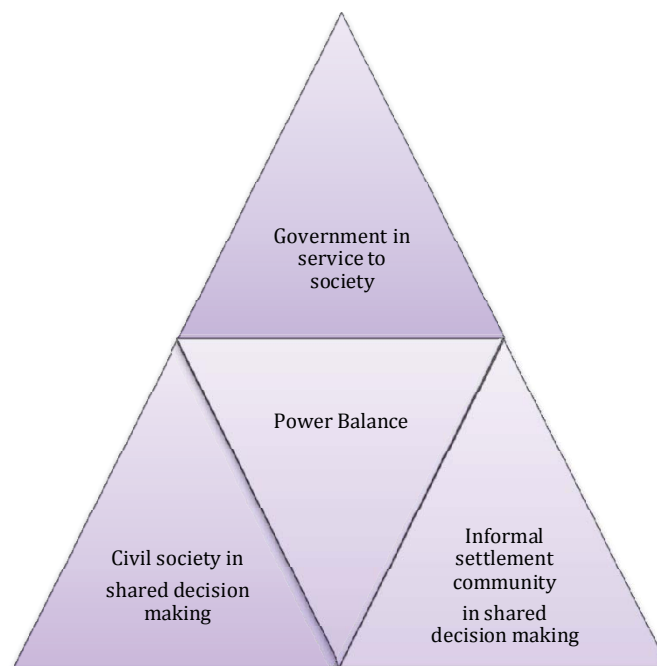


Figure 7.3: Power relations with shared decision-making

By definition, the differentiation between civil society and communities residing in informal settlements ceases to exist once this balance is achieved, because then the communities are assimilated into civil society through shared decision making.

Literature indicates that architecture (as part of civil society) similarly vacillates between being a service provider to government or a facilitator between informal settlement communities and government. Instances of community-driven architecture, apart from the apparent self-construction of informal settlements, are rare.

7.2.1.3. Neoliberalism

In much of the discourse surrounding informal urbanism, scholars blame the neoliberal economic policies adopted by the USA and UK in the 1980s for contributing to their increasing occurrence (Girdner 2011; Harvey 2012). Market-oriented conditions have contributed to competitive globalisation in which polarisation between wealth and poverty has increased dramatically over the last three decades. Concerns over poverty reduction are seen as intrinsically tied into the prevalence of informal settlements. This can be seen in the debates surrounding tenure security that straddle economic discourse on the one hand and socio-spatial justice on the other (De Soto 2000; Harvey 2012). From the economic perspective, the debate centres on tenure security as a foothold into the formal credit worthy economy, whereas the other debate is more concerned with protection against eviction. Those scholars investigating alternative models to neoliberalism are found to favour collective tenure options not necessarily related to land titling, rather to long-term secure leases at affordable rates (Archer 2012).

Neoliberal market economies are currently considered to be unchallenged, dominant in the global north but equally and according to Marxist theorists, devastatingly dominant in post-colonial and post-communist countries. The current hegemony of neoliberalism is considered to define the global status quo, intrinsically contributing to the de-marginalisation of informal urbanism. There is agreement among researchers that informal urbanism is now a mainstream phenomenon (Perlman 1976, 2004; TUM 2013).

Literature indicates that architecture, in its nature as service provider to the paying client, has become intrinsically bound into this hegemony of neoliberalism. Without a welfare state concerned with the large-scale construction of housing projects and public amenities, architects render their services to developers whose sole aim is to derive maximum profit (Spencer 2011; Van Toorn 2007). From the literature review it is evident that the profession is caught between a self-congratulatory satisfaction at perceived successes in service of neoliberal achievement and a gnawing discomfort that such success demands its price in terms of social injustice. Much of the literature in which this conundrum is discussed, veers off onto a tangent of charity or self-effacement, unable to disentangle the fundamental predicament of architecture as servant to power (Awan, Schneider & Till 2011).

7.2.1.4. Transformation

Underpinning much of the discourse on informal urbanism is the implication that there is a need for meaningful socio-economic transformation. The nature and pace of such transformation, however, has been proven to have little or no impact when it is initiated by external parties. For this reason, there is a plethora of debates and discussion around the topic of community participation in informal settlement upgrade. Who participates in what and for what purpose? These questions are discussed from the development perspective (Mansuri & Rao 2013), from the perspective of rights-based movements (Harvey 2012), within various disciplines, by researchers and activists alike. There is a growing understanding that any form of induced participation in any endeavour will, in all likelihood, fall short of the outcomes desired by the inducing party. Researchers agree that when participation occurs naturally or organically and communities of interest are galvanised in support of a common goal, collective and sustained transformation can take place (Keare 2001).

Much of the literature emanating from rights-based movements inspired by Lefebvre (1996) bases theories upon indications of such organic social activism and lends support to the notion that collectively, these pockets of resistance contribute to challenging the current global status quo. In particular, attention is paid to such movements originating within informal settlements, where an authentic alternative to the mainstream is inferred. The collectivism that is often associated with communities living in informal settlements is seen as a valuable aspect to this position, as one of the traits associated with exploitation of the urban poor is the idolatry of the individual (Lopez de Souza 2010). Although there is evidence of literature in support of rights-based movements from within the architectural profession (Fieuw 2011), the difficulty of negotiating the intersection between the collective and the individual is rarely discussed. Without a single synthesising concept or identity, translation into a unifying architectural manifestation is problematic. Literature wishing to position itself within this discourse is often found to deny mainstream approaches to architectural production in an attempt to re-invent *ways of doing architecture* in order to engage significantly in this collective context of participation (Awan et al 2011). It appears, however, that such primary transformation of the profession itself is met mostly with the resistance of inertia, preferring to maintain an immovable position in terms of professionalism, education and praxis from where critique on the system is offered, rather than an immersion into the fray of battle (Van Toorn 2007). Exceptions to this

are noted in the literature review (Boonyabanha 2005; Das 2008), although they are found to remain marginal to the main thrust of concern within the profession.

7.2.2. South African overview

7.2.2.1. Policy landscape

South African policies stemming from the post-1994 constitution that enshrines the *right to adequate shelter* (SA 1996) circumscribe a comprehensive array of vehicles to accommodate this internationally recognised human right. The National Housing Code (SA DHS 2009) describes four categories of programmes that collectively address the central foci of housing concerns: financial programmes; incremental housing programmes; social and rental housing programmes and rural housing programmes. Housing institutions and additional support programmes such as the Housing Development Agency (HDA) and the National Upgrade Support Programme (NUSP) have been created to assist in the implementation of policy and programmes.

It is widely agreed among scholars that the South African policy landscape is progressive and responsive to international best practices as promoted through the UN-Habitat, aligned with the intentions of the Millennium Development Goals (MDGs). Interpretation and implementation of both policies and MDGs are contested (Pithouse 2009).

Researchers and political activists point to a severe discrepancy between the progressive intentions of the policies and an increasingly repressive political response manifesting particularly in informal settlements. Reports of service delivery protests being met with police brutality are cited as indications of a disjuncture between that which is promised on paper and that which is supported in reality (von Holdt, Langa, Molapo, Mogapi, Ngubeni, Dlamini & Kirsten 2011).

Interpretation of the UNHabitat MDGs is found to be equally problematic in the expressed desire for *slum-free cities*. The power of this slogan is considered to have influenced and encouraged an anti-poor sentiment among politicians promoting the eradication of informal settlements (Huchzermeyer 2011). Literature indicates that the debate regarding informal settlements therefore centres on the interpretation of upgrade on the one hand and on the

political will to implement such upgrade on the other.

Although the policy landscape is inclusive of the complexity of the built environment, it is noted here that no mention is made of the architectural profession as part of the Housing Code (SA DHS 2009). Allowance is made for related built environment professions such as town planning, engineering and geotechnical engineering, but architecture is not mentioned. The *National Development Plan* (SA Presidency 2011) is inclusive of terms relating to space in terms of spatial justice and spatial sustainability, yet no consideration for the role to be assumed in the design of such spatial manifestation. Where reference is made to specific building structures such as those referred to in the *Enhanced People's Housing Process* (SA DHS 2009b) or *Neighbourhood Development Partnership Grant* (Pernegger 2007), the contributions by community and development agents are considered, once again without allowance for interpretation by an architect.

It appears from this overview of the South African policy landscape, therefore, that the architectural profession is not considered in the discourse.

7.2.2.2. Bias

From the debate on the interpretation of informal settlement upgrade, it was found that particular bias regarding informal settlements could be identified. This bias appears to account for positions assumed in the implementation of policies related to upgrade or eradication of informal settlements. The four categories that were identified include:

- Pejorative view
- Problem-based approach
- Pragmatic position
- Radical empowerment position.

A pejorative view of informal settlements underpins the desire for eradication, demolition or relocation. A problem-based approach results in an induced solutions-driven attitude requiring goals and achievable outcomes. From a pragmatic perspective, informal urbanism is considered a transitional state towards formalisation. All three of these positions assume a non-critical view of the existing formal status quo, thus defining informal urbanism in terms

of, and therefore marginal to, the mainstream. An alternative view of informal settlements in which the mainstream status quo is brought into question, is held largely by those subscribing to an interpretation of Lefebvre's (1996) *Right to the City*. In the South African discourse, this has become the locus of the most outspoken critique on the post-1994 government's inability to redress the social and spatial inequities of the apartheid era (Huchzermeyer 2011). Voices from the architectural profession that have contributed to this debate are thin on the ground (Fieuw 2011). Contributions to the debate are found to prevail mostly in planning and judicial literature (Pithouse 2009; Tissington, Munshi, Mirugi-Mukundi & Durojaye 2013; Von Holdt et al 2011).

Where examples of architects contributing to the discourse have been identified, they assume positions in any of the four categories mentioned above. Designs for amenities and housing projects aimed at replacing existing informal settlements account for support of the pejorative view (Fieuw 2011), whereas the insertion into informal areas of new facilities or the incremental phasing thereof would support both the problem-based and pragmatic approach to upgrade (Breimer 2011). Where *in-situ* upgrade is seen as an opportunity for community enablement, the role of architectural service is redefined in its entirety, no longer in service of the state or development agent, but rather in service of the community themselves (Van Horen 1996). Few such South African examples were evident in the literature review.

7.2.2.3. Imbalance of power

The literature review confirms that there is an imbalance of political power in South Africa (Figure 7.4), with the government assuming the role of top-down provider and the civil society sector mainly in the service of government with regard to informal settlement upgrade (Huchzermeyer 2011). Tertiary institutions rely on government subsidies and similarly position themselves in support of or in service of government. Communities residing in informal settlements are viewed as passive and acquiescent beneficiaries of state subsidies and grants (Breimer 2011).

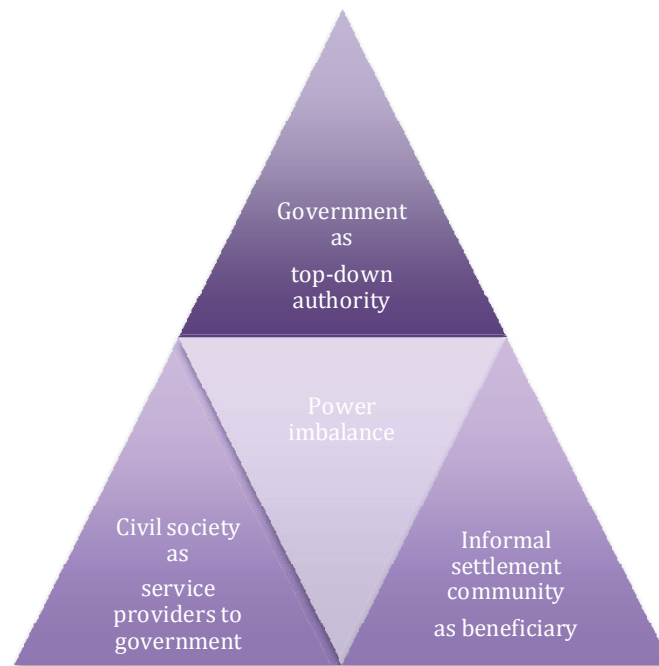


Figure 7.4: Power relations in the South African scenario

In some cases, rights-based movements aligning themselves with communities in protest against government are relying on the judicial system in their appeal to the rights enshrined in the country's constitution (Huchzermeyer 2011). These court applications are an attempt to enforce the government's duty to its citizens, which in effect is a confirmation of the top-down provision model that is currently frustrated. The fundamental power relation, however, is not challenged in these arguments as the role of responsibility is not reverted in favour of community based decisionmaking.

Where architectural professionals engage in work-related to informal settlement upgrades, it is in their capacity as service provider to government or NGOs (Low 2005). Beneficiary participation, where it is included in the process, is found to be induced rather than organic (Van Horen 1996). In the case of the South African Shack Dwellers International Alliance (SASDI), there is recent evidence of architectural service being rendered to this community-based organisation by way of re-blocking of shacks, technical advice on small-scale construction and mapping of settlements (Fieuw 2011). The scale of support remains limited, however, as the lingering distrust of professionals still outweighs any interest in exploring the potential value in the partnership (Mitlin 2013). Architects working within NGOs are found to

assume the role of facilitators between communities and government officials, especially in the implementation of the *Enhanced Peoples Housing Process* (Himlin 2005).

From the literature review it is therefore evident that the profession remains marginal to the discourse on informal settlement upgrade, this being reflected in related policies and programmes. A detailed scrutiny of the South African policy landscape concerned with informal settlements reveals a glaring omission of the architectural profession from all the programmes emanating from the National Housing Code (SA DHS 2009). In this way, it can therefore be stated that sub-question one has been answered.

7.3. Conclusions to sub-question two

What are the key factors that need to be addressed in order to mitigate this marginality?

7.3.1. Introduction

To determine the key factors that ought to be addressed to mitigate the stated marginality of the profession of architecture in the discourse on informal settlement upgrade, pertinent issues arising from the preceding literature review were identified. The identification of these themes was reliant on a qualitative assimilation of the literature, rather than on a quantitative analytical approach. Semi-structured interviews were conducted with recognised experts in the South African discourse to corroborate these findings and to further extrapolate their relevance as key factors in the discourse.

From these interviews, it could be ascertained that the following issues deduced from the literature review constitute the central issues of the discourse on informal settlement upgrade, which the profession of architecture ought to address to mitigate their position of marginality:

- Definition of *in-situ* upgrade of informal settlements
- Transformative mandate
- Tri-sectoral balance of power
- Tenure security
- Participation
- Role of architects

7.3.2. Definition of in-situ upgrade of informal settlements

Literature suggests that the understanding, definition and biased approach towards informal settlements vary between a desire for eradication to an heroic view in which such settlements are seen as the remedy to counter the systemic faults of the current neoliberal economy. A distinction was noted between the definition of informal settlements and the ensuing position assumed with regard to their proposed upgrade.

In defining informal settlements, the interviewees suggested that the contested legal condition

of the settlement ought to be considered at the outset, as all other factors would relate to this power relationship. The lack of services along with the prevalence of high social stress and poverty would require acknowledgement as these offer base lines from where development initiatives could be motivated. The study indicated that the way informal settlements are defined becomes indicative of the nature of proposed interventions.

In particular, the approach to upgrade would relate to this definition, underpinning a position that directly influences the suggested proposals. In this way, where pejorative views towards informal settlements are held, eradication would follow. When informal settlements are viewed in terms of their problems and shortcomings, specific solutions to such problems are sought. A pragmatic view of informal settlements as an inevitable part of the incremental growth of urban centres underpins a systemically supportive approach. All of these views remain fundamentally uncritical of the formal socio-economic and political structure in which the informal settlement has come into being and rely on the mechanism of this formal structure to address the issue.

Outside of this construct, a radical rights-based position questions these formal structures as being responsible for the existence of informal settlements in the first place and views such settlements as the seed of revolution from where faults in the system may be addressed. For this reason such a position insists on the *in-situ* upgrade of settlements where the occupation by residents is seen as a spatial manifestation of contested power relations.

Examples of architectural interventions have been identified in the study, confirming the range of proposals that are derived from the initial defining positions. It could therefore be concluded that any meaningful contribution to the discourse would require a specified definition regarding informal settlement upgrade that would necessarily have bearing on any ensuing proposals.

7.3.3. Transformative mandate

The discourse on informal settlements extends beyond the physical manifestation of the settlements themselves to deliberate the causal factors emanating from historical, socio-cultural and especially economic influences. Critical consideration of these influences calls

for transformation addressing the contestation for justice, access and citizenship reaching to economic policy and political governance at national and international levels.

The level of transformation required extends to a questioning of traditional planning systems, including the discipline of architecture, that continue to support the status quo. The condition of informal urbanism represents a collective consciousness as opposed to the atomised client-architect relationship, therefore requiring transformation of this individualised system to engage meaningfully in the context.

Further to this, the study indicated that there is a need to stimulate a complex housing supply to mitigate the reduction of opportunities resulting from the current situation, therefore assuming a proactive role in the discourse.

Finally, it was suggested that administrative processes must be transformed to ensure systemic change.

The mandate for transformation impacts at a systemic level as well as on the stakeholders in the discourse. Therefore, for architecture to be able to mitigate its current marginality, it requires a transformation of its own mechanisms on the one hand, as well as a real contribution to systemic transformation on the other.

7.3.4. Tri-sectoral power balance

The imbalance of power between government authorities, the resources of civil society and communities residing in informal settlements, was identified as a central theme through the body of the literature, both internationally and in South Africa. Various models of imbalance were noted, the South African scenario being an example of top-down authority vested in government, with civil society professionals tendering their service to government and informal settlement communities seen as passive beneficiaries of subsidy programmes.

Engagement with the discourse on informal settlement upgrade therefore requires an explicit understanding of the existing power balance as well as the mechanisms that continue to support it or may serve to challenge it. Primarily, it is necessary to establish what the current

balance of power is, distinguishing between levels of service, provision and decision making as it is distributed between government, civil society and informal settlement communities. A further distinction is necessary to determine whether community-based organisations are in collaboration with authority structures or whether they are supported through rights-based activist groups in an adversarial position vis-à-vis the authorities.

Specifically in the South African scenario, where an apparently progressive policy landscape is being frustrated at the level of implementation, further components of this imbalance need to be considered, such as politicised development objectives that are pursued by government officials and accountability of the provincial government. Moreover, it was suggested that the apparent skills and knowledge gap in government officials regarding informal settlement upgrade needs to be addressed.

Closely related to an understanding of the power balance between the various stakeholders is recognising who the main drivers of upgrade actually are, from the initiatives undertaken through the National Upgrade Support Programme (NUSP), the possibly ad-hoc engagements supported through NGOs and academics as well as the support garnered through the judiciary by way of rights-based activist groups. The impact of these initiatives on the existing power balance necessarily relates to the source of their engagement.

As part of a critical consideration of power balance, it is deemed important to investigate the level of institutional support that is offered to social processes either through formal administration and bureaucracy or through a recognition of the existing community-based organisational structure and capacity.

For the architectural profession to engage in the discourse, its institutional position within this power balance must be considered. Firstly, there ought to be recognition for the fact that the profession is implicated in the formal processes, supporting and perpetuating the current power balance through its own formalised mechanisms and structure. Secondly, its impotence in terms of challenging the power balance should be recognised. This stems from both its exclusion from government structures, where no allowance is made for architectural fees or service, as well as its own limitations such as maintaining an elitist position, with no culture of

pro bono work, no community architecture movement and little or no engagement with the political aspect of the problem at an educational level. The fundamentally individualist nature of architectural engagement effectively undermines the potential to engage in the collective power struggles required in the discourse on informal settlement upgrade and must therefore be addressed to mitigate the current marginality.

7.3.5. Tenure security

The issue of tenure security is seen in the discourse on informal urbanism as inconclusive and stratified. In the face of forced removal and eviction, tenure security is often held as a first step towards recognition of occupation and protection against human rights abuse. Counter arguments to this emanate from the Marxist camp, where the individualism inherent to acquiring a title deed favours capitalist exploitation and effectively undermines the collective strength of the community. Alternative arrangements ensuring tenure security beyond the individual titling option were evident in examples from Thailand.

Incremental tenure security may be considered as a responsive approach to informal settlement upgrade, where intermediate administrative recognition would be required and where the consolidation of precarious structures into more durable dwellings on existing sites would be proposed as an alternative to the freehold title model.

In the South African context, the housing demand has become individualised through the capital subsidy system, effectively becoming inhibitive to localised upgrade because it is not a holistic approach. It has been pointed out in the study that the subsidy could potentially support such upgrade if the process of consolidation – improvement to existing structures – could be supported in lieu of the single house typology currently provided. However, the political entrenchment of power through the Reconstruction and Development Programme (RDP) has to undergo a radical shift for such transformation to occur.

Potential contribution by the architectural profession is inherently bound to the capital subsidy system, rendering such individualised fees exorbitant. Debate regarding the restructuring of the capital subsidy to effect transformation includes the consideration of a mechanism that is not focused on the individual, but rather at upgrading at the settlement level. Although architects

have the potential to make a contribution to informal settlement upgrade through urban design frameworks, there is currently no allowance made for this within the capital subsidy system.

Concurrent with the formalisation of conferring individual title is the accompanying legislative constraint embodied in building standards. Currently, the architectural profession is legally bound to uphold these standards and regulations. The appropriateness of such standards as well as the critical role architects play in their application requires consideration as part of this discourse.

7.3.6. Participation

Deliberations on the levels of participation by informal settlement communities and the various stakeholders tasked with development, is a well debated topic, both in international and South African literature. Embroidering on theories of participation developed in the 1960s, the residual understanding is that sustained success of any initiative requires an approach based in partnership, where resources normally associated with top down upgrades are balanced by the bottom up desire and commitment associated with organic participation. For the profession of architecture to engage in this discourse, consideration of the complex processes of participation and the associated challenge to primary authorship is required.

In terms of public participation in informal settlement upgrade, collective engagement between the community and the professional team is required, with continuing skills and capacity development in both the community as well as the professional body. It is important to note that the stages of participation are not static. Rather, participation occurs in a spectrum from protest through to collaboration, each stage requiring a different level of engagement from all parties. The role undertaken by the architectural profession in these different stages varies from catalytic to symbolic, a differentiation that must be considered as part of the discourse.

As part of the debate surrounding participation is an understanding of participatory research that may inform an upgrade process through offering the community a voice, but carries with it the inherent danger of tokenism and possible lack of critical reflection. Similarly, collaborative

design including multi-disciplinary teams suggests a platform for the community to articulate their needs. The intersection of the collective and the individual may be facilitated through this process, although it has been pointed out that it contains the inherent danger of becoming a mechanism of control.

As an eventual outcome of partnership-based participation, the culmination of participative urban management is considered as a model that cultivates ownership and renders importance to the relationship between the informal settlement community and the city.

For the architectural profession to engage in this aspect of the discourse, processes of research and design have to be considered, along with the physical implementation of built interventions and their subsequent impact.

7.3.7. The role of architects

Despite noted examples of architectural involvement in informal settlement upgrade programmes across the globe, such examples have not yet been assimilated into mainstream architectural discourse. Neither has the role of the profession in these examples made any significant impact on the prevailing discourse on informal settlement upgrade itself. The omission from the South African policy and discourse is equally significant, thereby rendering the role of architects a key concern to be grappled with.

Although there are few examples of historical involvement by architects in the upgrade of informal settlements, these examples ought to be acknowledged by the profession and their contribution considered critically. Due to this paucity of precedent, architects are considered to be ill-prepared for such work and do not understand the requirements.

The potential space for architectural intervention needs to be understood, with due consideration given to the danger of *defaulting into design* (Huchzermeyer 2013) as a process of technocratic problem solving that remains unpoliticised and therefore inappropriate for these contested conditions. The inherent production of architecture as a process of individualisation needs to be mitigated through holistic approaches, although it has been proposed that individualised technical assistance through the Enhanced People's Housing Process could be developed.

Appropriate strategies for architectural intervention would include a commitment to participatory processes that embodies a shift away from a purely product-driven approach. This would address the requirement for spatial frameworks and community buildings as shared focal points, thereby translating into communities' right to careful and good design.

The potential for social activism through architectural engagement has not been ruled out in the study, requiring a culture of engagement and a pro-poor mentality borne out of solidarity with the residents of informal settlements, long-term commitment and personal conviction. To ensure a continuing debate, it was suggested that a basis of a politically conscious education would need to be established.

Through the assimilation of pertinent issues arising from the literature review and corroboration by way of the semi-structured interviews with recognised experts in the field, the key factors that need to be addressed in order to mitigate the current marginality of the architectural profession to the discourse on informal settlement upgrade could be established. In this way, it can be stated that sub-question two has been answered.

7.4. Conclusions to sub-question three

How can the factors contributing to this marginality be addressed?

7.4.1. Introduction

In answer to sub-question three, the Community Action Planning (CAP) methodology was proposed as a platform of engagement that could serve to address the marginality experienced in the architectural profession in the discourse on informal settlement upgrade. This extended platform of engagement was considered in terms of the key factors as described in chapter three.

A case study spanning four years served to illustrate the application of the CAP methodology in the context of an academic module in the Department of Architecture at the University of Pretoria, South Africa. The outcomes of the student work were documented in terms of the application of CAP methodology including the augmentation measures that have been proposed.

Findings of the case study were then considered in terms of the key factors identified in chapter three to evaluate the ability displayed in the academic context to address these key factors through the application of the CAP methodology and the proposed augmentations.

7.4.2. Community Action Planning

Nabeel Hamdi and Reinhard Goethert developed Community Action Planning (CAP) in 1997 as an approach to planning that could empower communities in the design, implementation and management of their own settlements and programmes. The approach was expanded on in their book *Action Planning for Cities* (Goethert & Hamdi 1997) and illustrated by means of a wall chart developed at the Special Interest Group in Urban Settlements (SIGUS) at the Massachusetts Institute of Technology (MIT). This wall chart describes a step-by-step method of engagement that includes:

- Introduction
- Statement of Problems and Opportunities
- Documentation of Key Information

- Making a Community Map
- Set of Actions and Related Tasks
- Plan for Implementation

This method of engagement has been considered in the thesis on the grounds that the UN-Habitat bestowed it with the Scroll of Honour in 1997 and has subsequently assimilated CAP as a basis of engagement in their approach to settlement upgrade. Additionally, the application of CAP in the Violence Prevention through Urban Upgrade (VPUU) initiative in Cape Town, South Africa, establishes this platform of engagement as a currently and contextually relevant methodology.

CAP was evaluated in terms of the key factors identified in the previous chapter by considering each step of the methodology for its ability to address the full extent of the factors listed. This evaluation was done by means of a matrix that serves to illustrate the efficacy of the method, as shown in chapter four.

Augmentation to CAP was proposed where it was found that the process of architectural interpretation required additional considerations. In the development of the *Statement of Problems and Opportunities*, the simplification of needs and the difficulty of distinguishing interest groups within the community required a deeper investigation of needs as well as an understanding of the networks of association active within the community. For this reason, the following augmentation measures were included:

- Needs analysis
 - Collective *Testimonio*
 - Human Scale Development Matrix
 - Image of Home
- Network mapping

In preparation of the *Community Map*, it was proposed that *Participatory GIS* ought to be included as part of the process to broaden the inclusive contribution by community members on the ground and to benefit from technological advances in electronic mapping and storage of data. The *Set of Actions and Related tasks* afforded the opportunity to expand the

application of the CAP beyond programming and to propose the inclusion of *Collaborative Design* as a method of engagement that extends the process into the shared spatial realm. In this way, the process of architectural production could be specifically harnessed to enrich the CAP methodology. Further to the *Plan for Implementation*, it was argued that *Community Architecture* could contribute significantly to a spatial interpretation and deliverable of the CAP outcome. By proposing the inclusion of these augmentation measures, it was found that the key factors identified in chapter three could be satisfied to a level of 23%.

7.4.3. Case study

The case study that served to investigate the application of CAP as a method of engagement was in the research field of Human Settlements and Urbanism at the Department of Architecture, University of Pretoria. The seven week research and design studio module *Research Field Project* (RFP 721) was considered in its iteration over a four year period from 2010 to 2013. The sites of engagement were located in Slovo Park informal settlement in Johannesburg and Alaska informal settlement in Mamelodi, Pretoria. The number of students enrolled varied from year to year, with voluntary and mandatory involvement changing in the different iterations. The student brief and assignment became progressively more rigorous in terms of the application of CAP methodology and was supported by a theory course that became increasingly more aligned with the expected outcomes of the course. Scheduled meetings with community members varied in the iterations, impacting on the way students were able to process information gathered on site.

In addition to the studio module, two upgrading processes of the community hall in Slovo Park were documented, as they were seen as culminating from the research and design module preceding the physical implementation. These live build projects were considered separately for their application of CAP methods, but evaluated in combination with the preceding RFP 721 module for the purposes of comparison.

A workshop series undertaken during 2011 in Slovo Park served as an opportunity to investigate specific augmentation measures that were proposed in chapter four, after which some of these measures were included into the student brief as part of the CAP methodology structure. Results of these workshops were evaluated in terms of their ability to address the key factors identified in chapter three.

7.4.4. Findings from the case study

The ability to address each key factor was noted by way of a comparative matrix, where the potential of CAP to address these factors was overlaid by the actual application of CAP during each iteration of the academic modules as described above. The horizontal axis of the matrix lists the steps of CAP as described in the SIGUS wall chart, with the augmentation measures as described in chapter four included. The vertical axis lists the key factors derived from chapter three, organised within their main themes. Where the CAP methodology is able to positively address a key factor, it is indicated on the matrix. From this matrix, an analytical evaluation of the iterative applications of CAP could be made in terms of their ability to address the key factors identified in chapter three proportionally (Figure 7.5). This evaluation illustrates the difference in efficacy between the various iterations and includes a consideration of the two instances where the academic module was followed by the physical implementation of the hall upgrades.

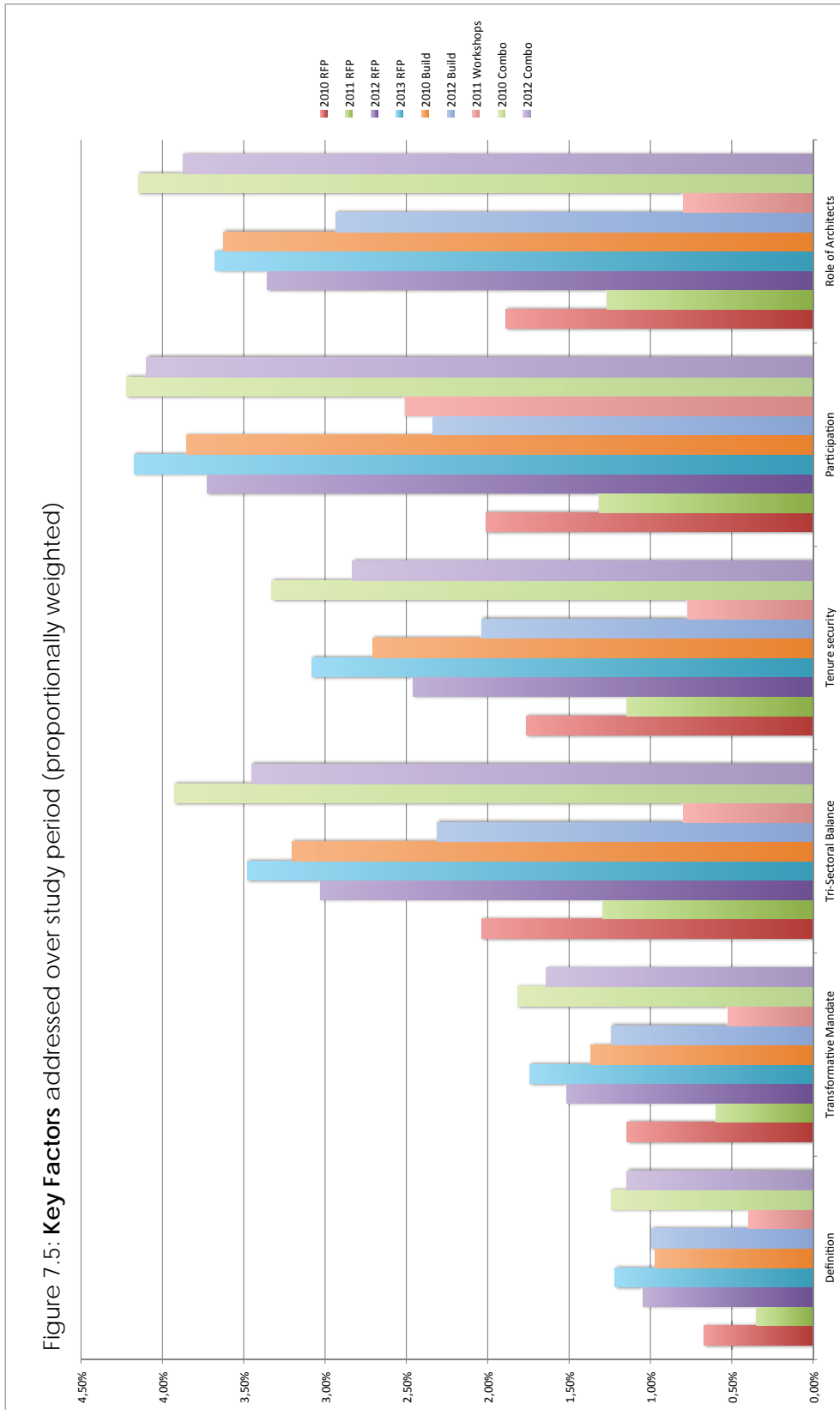
From this evaluation, it is evident that the project undertaken by the students and community members of Slovo Park during 2010 that culminated in the physical implementation of the community hall upgrade, managed to address the greatest number of key factors inherent to the informal settlement discourse.

Significantly, the studio module of 2013 that did not culminate in a live build project, achieved similar results to the 2012 iteration that was followed by the second upgrade of the Slovo Park community hall, indicating that the steadily more rigorous application of CAP methodology to the studio module, supported by an aligned theory course, was able to indicate a sustainable basis for studio engagement that could serve to address the key factors established in chapter three.

Seen as an average over the study period individually (Figure 6.37), it became evident that the key factors of *definition* and *participation* could be most successfully addressed by means of the CAP methods. This was followed by the *transformative mandate* and *power balance* in equal measure. The issues of *tenure security* and the *role of architects* enjoyed the least successful outcome.

From this investigation into the CAP methodology and certain proposed augmentations, it could be ascertained that such a platform of engagement would be able to address the key factors identified in sub-question two, albeit to a very modest level of success. For the architecture profession to mitigate its current marginality to the discourse on informal settlement upgrade, it was therefore proposed that this platform of engagement could be applied to an architectural design process in the context of an informal settlement. From this evaluation, it can be concluded that sub-question three has been answered.

Figure 7.5: Key Factors addressed over study period (proportionally weighted)



7.5. Recommendations for further research

Architecture, to state the obvious, is a social act – social both in method and purpose. It is the outcome of teamwork; and it is there to be made use of by groups of people, groups as small as the family or as large as an entire nation. Architecture is a costly act. It engages specialized talent, appropriate technology, handsome funds. Because this is so, the history of architecture partakes, in a basic way, to the study of the social, economic, and technological systems of human history (Kostof 1995:7).

This study has served to confirm that the architectural profession currently remains at the margins of an urban phenomenon that determines the quality of life of almost half of the world's population: informal settlement. This phenomenon has assumed a mainstream position in the international discourse on urbanism encompassing various spatial and non-spatial disciplines, yet architecture – the discipline that has enabled the synthesis between stakeholders of power in the past – has thus far failed to engage meaningfully with the emergent identity manifesting in the world's new urban population.

It is therefore recommended that for the profession of architecture to assuage its current marginality in the discourse on informal settlement upgrade, transformation of the architectural engagement process is required. Such fundamental transformation is most easily achieved through embedding an approach at the educational level, although the possibility of continued professional development is not ruled out.

7.5.1. Community Action Planning

The Community Action Planning (CAP) methodology, inclusive of the augmentations proposed in this thesis, could serve as a successful platform of engagement to mitigate the current marginality of the architectural profession in the discourse on informal settlement upgrade. From the various iterations undertaken, it was evident that CAP is not difficult to assimilate, is open-ended enough for creative interpretation, yet rigorous enough to ensure that no issues of importance are neglected. For this reason, it is recommended that CAP should be considered as a model for inclusion into the architectural curriculum as part of the expected skills set. Further to the pedagogical platform, research could be undertaken on the development of multidisciplinary CAP workshops for practicing professionals.

7.5.2. Theoretical support

An appropriate theoretical support base specific to the socio-political component of informal urbanism is required to accompany all community engagement activities, with critical reflection of process and product at all academic levels. For this, it is recommended that appropriate academic weighting should be given to the theory modules that support the research and design studios where engagement in this context is undertaken.

7.5.3. Iterative engagement

Engagement with specific communities residing in informal settlements ought to be iterated over several years of study, so that a relationship of trust and mutuality may develop within the community structure, as well as the student group. Students undergo a process of growth and development in their consecutive academic years, allowing for an incremental understanding of the contextual conditions to develop. The need to theorise and problematize collaborative design can only be addressed meaningfully on the basis of such iterative engagement, where authentic dialogue between participating communities and academics may develop.

7.5.4. Identification of community network structures

Following on the success of the Slovo Park community hall upgrade in 2010, no maintenance was done, the trees were not taken care of, the grass withered, the reeds were broken out of the steel frames and the newly laid tiles were smashed. During the course of the workshops held in 2011, discussion around the general state of disrepair of the hall led to an observation by the Slovo Park Community Development Forum (SPCDF) leadership that they had not taken possession of the hall. Despite the fact that most of the SPCDF had personally taken part in the construction, the sense of ownership that existed during this time ceased once the project achieved completion. The result was that no-one assumed responsibility for the maintenance of the facility, with no disciplinary actions taken to mitigate the ensuing vandalism.

The design of the upgrade had been based on the assumption of a shared desire in the community for a generic gathering space. As such, there was no consideration given to securing the premises, as it was an open-ended roof construction with no lockable doors. The discussions during 2011 indicated that this open-endedness was translated as an undefined public realm, somehow separate from the shared communal domain. For this reason, the

upgrade undertaken during 2012 was focused on enlarging and specifically enclosing the hall with the addition of SPCDF offices adjacent to the hall. This would ensure responsibility with a particular focus group within the community.

The transition between analysis and the resultant design resolution has been found to pose the greatest challenge in terms of navigating the intersection between the collective and the individual. This moment in architectural production determines the level of authorship and control in the process, resulting either in a responsive or deterministic resolution. The identification of network structures and representative groups within the settlement such as the SPCDF supported this transition, enabling critical reflection of the failures of the first upgrade in order to propose alternative approaches to the second upgrade.

This sequence of events serves to confirm the recommendation in the study that it is imperative to engage with a specific interest group within an informal settlement community, especially in the case where the physical implementation of built structures forms part of the engagement. Research on the mentorship role undertaken by these interest groups would contribute to understanding the emotional ownership of the engagement process, challenging the roles of experts and beneficiaries. In this way, the intended benefit of such interventions may endure.

7.5.5. Solidarity through small-scale project implementation

Although it is often laid at the door of the architectural profession that it only serves wealth and power, it has been established in this study that it is possible to transform this perception through political conscientisation and through an approach to design that is more holistic and inclusive of engagement at an urban level.

Importantly, it became evident that it is possible to educate architectural students in the ability to engage with the people who reside in informal settlements. Solidarity between the students and the participating community members was achieved through undertaking specific tasks together and to go beyond the state of simplistic philanthropic engagement. It was clear that such meaningful interaction enabled an assimilation of the problems, dreams and aspirations of the people in the settlement, inspiring a desire in the students to offer support by way of their skills. At the same time, the skills and capacity of the informal settlement community came to

be appreciated and respected, contributing to the development of mutual understanding.

The physical implementation of small-scale projects has clearly contributed to a deeper understanding of the issues faced by communities residing in informal settlements. The tacit ingesting of complexity and the necessary reliance on the collective serves to galvanise the group of students and community members for the duration of such an exercise, which became strengthened through subsequent interaction. Critical reflection on appropriateness of building standards, construction methods and limitations of the formal system was made patent through this physical interaction.

It therefore follows as a recommendation of this study that engagement between residents of informal settlements and architects should be encouraged by way of undertaking specific tasks together that contribute to a holistic and political awareness of the conditions affecting the informal settlement. Research on the method of curricular inclusion, codes of conduct, ethics and assessment would be required to ensure its institutional recognition and validation.

7.5.6. Assessment

Assessment of work undertaken in the informal urban context requires a stronger focus on evaluation of the process and synthesis of complexity than on the final product alone. Assessment panels therefore ought to be grounded in the discourse on informal urbanism as well as architectural design processes to ensure constructive critique and contribution to the educational platform. This constitutes a challenge to the current situation due to the paucity of professional architects with such a background, thus reinforcing the need to establish a broader spectrum of appropriately skilled professionals.

7.5.7. Inclusion of the architectural profession as a resource

In as much as informal land occupation is seen as a powerful contestation for socio-economic and political justice, this urbanising process is often a direct manifestation of immediate need and opportunity with scant regard for consequence, either in terms of long-term humane living conditions or environmental sustainability. Despite the arguable levels of success and failure attained in the architectural profession along with related built environment disciplines over the last number of decades, these professions are equipped to consider the consequences of

human habitation, thereby representing a resource available for the benefit of an urbanising society. The lack of patent resources such as water and sanitation in an informal settlement is matched by the lack of access to these human resources.

It has been argued in this thesis that it is possible for the profession of architecture to make a contribution to the discourse on informal settlement upgrade, with the understanding that such potential remains limited in its efficacy. At best, by making use of CAP methods, this study has indicated that architectural input alone cannot hope to become the panacea of informal settlement upgrade. Such naïve aspirations have caused disdain and derision from other disciplines grappling with the challenge to the point of disregarding all potential contributions entirely.

Such an omission does not serve to promote the discourse at any level. On the contrary, by casting aside an entire professional cadre that is equipped to undertake certain challenges of the built environment seems ill considered and neglectful. In a discourse where the lack of access to resources underpins the greatest concern, it follows logically that all possible contributions from the broad spectrum of society ought to be encouraged rather than rejected. As much as the contributions by town and regional planners, civil engineers and geotechnical engineers is recognised in the South African policy environment, it is recommended that it would benefit the informal settlement upgrade initiative to include the skills offered by the architectural profession.

For the profession of architecture to assume its role in the policies and programmes related to informal settlement upgrade, institutional support by professional bodies such as the South African Council for the Architectural Profession (SACAP) is required to ensure curricular alignment between academic learning sites and subsequent recognition of community engagement as a requirement of professional accreditation.

7.5.8. Activism supported through architectural engagement

In the case of Slovo Park informal settlement, the repeated engagements from 2010 to 2013 contributed to the community leadership's resolve to pursue their legal contestations with the City of Johannesburg. Although Slovo Park already had a well-striated organisational structure that had a history of negotiation with the city, the architectural intervention revealed the

structure of this organisation in terms of its collective mandate and intent. Through the iterative processes of research, design and building projects undertaken in the following years, the residue of galvanisation remained and strengthened the community's resolve in their legal challenge to the City of Johannesburg (SERI 2014). The primary support in this legal challenge comes from the Socio-Economic Rights Institute of South Africa (SERI) who is appealing to the judiciary on behalf of the residents of Slovo Park. The architectural contribution to this process has been recognised in the case study prepared by SERI (Tissington 2011:53).

7.6. Conclusion

The motivation for this study originated from a personal concern that my architectural education had not prepared me to contribute significantly to the challenges facing our young democratic society. Having come to the end of this investigation, I am able to confirm that these observations were not unfounded, but are shared by the mainstream profession in other countries faced with similar conditions. Despite many inspiring examples of architects undertaking participative work that speaks of empowerment and enablement (Awan, Schneider & Till 2011; Serageldin 1997), this study has indicated that such examples need to be taken far more seriously in order to become embedded in the pedagogical foundations of the profession.

Although the platform of investigation has been limited to an educational context, it is proposed that its value extends to the realm of practice. Only by taking a position with regard to engagement in the context of informal settlement upgrade would it be possible for the profession to eventually mitigate its current marginality.

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1. Positive comments requiring no revisions

- 1.1. *Thorough; exhaustive; up to date literature review*
- 1.2. *Important piece of work*
- 1.3. *Augmentation of CAP significant; broad application in field of action planning*
- 1.4. *Advanced, creative & original piece of research*
- 1.5. *Substantial contribution to knowledge of CAP, community architecture and participatory design*
- 1.6. *Critical, reflective and up-to-date discourses in relation to the topics*
- 1.7. *Remarkably valuable for theory and practice of community architecture*
- 1.8. *Insightful comprehension and recommendation to the transformation of architectural professionalism and education*
- 1.9. *Critical reflection on own experience valuable and appreciated*
- 1.10. *Well-written, qualified to be published in academic platforms*
- 1.11. *Literature review sufficient*
- 1.12. *Language use clear and straightforward*
- 1.13. *Lay-outs, texts, tables and figures systematic*
- 1.14. *Chapter 1 clear: questions and hypothesis well written*
- 1.15. *Motivation for study useful*
- 1.16. *Chapter 2 well orchestrated*
- 1.17. *Chapter 4 well written: complex information, format efficient and well communicated*
- 1.18. *Chapter 6: Many interesting findings*
- 1.19. *Carefully planned, sensitively embedded, painstakingly assessed and reflected studios*
- 1.20. *Impressive account of immersed and deeply reflective practice in the field of architectural education*
- 1.21. *Thesis very carefully carried out, with attention to coherence throughout the document*
- 1.22. *Critical abilities demonstrated in chapter 4*
- 1.23. *Reflective practice demonstrated in volume 2: Congratulations*
- 1.24. *Excellent example of action research (stated objective to alter thinking of participating students)*

- 1.25. *Chapter 5 cases presented in detail and richly illustrated, bringing them to life.*
- 1.26. *Thesis carefully written and well edited*
- 1.27. *Thesis appropriately illustrated*

2. Negative comments requiring no revisions

- 2.1. *Excessive detail; inevitable politicisation*
- 2.2. *Relevance to architectural profession should remain central*
- 2.3. *Extremely voluminous submission, with fair amount of repetition*
- 2.4. *Chapter 2 sub-conclusions unwieldy*
- 2.5. *Writing style overly indirect*
- 2.6. *Writing style quite abrupt with short paragraphs*

3. Comments requiring response

- 3.1. *Number of interviews in chapter 3 too limited*

The interviewees were selected from within the South African context specifically because of views they have expressed on the subject. The main purpose of these structured interviews was to corroborate the central findings in chapter 2, rather than establishing an exploratory framework. For this reason, it was not considered necessary to expand on the number of interviews beyond the scope of known expertise. (Revision to chapter 3 introduction.)

- 3.2. *Primary data should not be included into addendum*

Inclusion of data for transparency and authentic referencing

- 3.3. *Initial chapters descriptive*

Purpose of the initial chapters to establish the current condition, hence its descriptive nature

- 3.4. *Chapter 5: Individual cases end abruptly*

Chapter 5 sub-conclusions amended

- 3.5. *Lopes de Souza introduced as Marxist - incorrect*

Lopes de Souza introduced as libertarian author
(Revision to chapter 2)

- 3.6. *Chapter 2 sections inconsistent: Latin America referred to collectively, Asian countries separately*

Latin America is viewed in this instance as a region considered to be more homogenous than Asia, in terms of post-colonial history, language and policies. The Asian region has very disparate conditions, making it unwieldy as a collective section. For this reason, I decided to view the specific Asian examples individually.

3.7. *Thesis too long: Wits max 80 000 words*

UP thesis guidelines adhered to

Critique noted for future discussion by research panels

3.8. *Maps and images bad resolution: p 364*

Figures have been replaced

3.9. *Analytical process biased and unenthusiastic about successful attempts*

Refer to 4.8

3.10. *Implication that induced participation can't lead to state of community empowerment: incomplete statement*

Most of the literature consulted converged on this issue, stating that the difference between induced and organic participation impacted significantly on the potential for community enablement. This is more acutely felt in a heterogenous society like South Africa, where class and racial differentiation carries the weight of language barriers, entrenched distrust and political gatekeeping. The desire for intervention, change and enablement is therefore deeply affected by the initiating parties. Especially in terms of this study, where the initiative is considered from the perspective of professional service providers, this limitation must be taken into account.

Refer to chapter 4 collaborative planning, where the importance of facilitation is considered:

Booher & Innes (2002) suggest that a collaborative network can be seen as an organic system (Capra 2002), in which diversity is the source of raw material that brings together ideas, values, interest and knowledge. The source of energy is the interdependence among participants and authentic dialogue is the genetic code. Such authentic dialogue takes time to develop, requiring trust and confidence to express honest views and feelings (Booher & Innes 2002). Within such conceptualisation of the organic nature of participation, the possibility

exists that the facilitator becomes absorbed into the collaborative network, thus changing the nature of the participation from induced to organic through authentic involvement in the dialogue. The facilitator therefore becomes an equivalent participant in the decision-making process, eventually ceding the position of external expert.

3.11. *Figures 5.6 - 5.11; 5.13 bad resolution*

Refer to 3.8

3.12. *Numbers in 'Average Row' missing table 6.2.1 onwards*

Only total averages compared

3.13. *It seems as though certain values, knowledge & skills of community architects not considered 'real' architecture*

The skills and knowledge base of community architects is not yet developed in the South African context, with little or no parameters for its assessment. For this reason, the notion of what constitutes 'real' architecture remains institutionally uncritical and defaults back to traditionally held values. The intention of the thesis is to point out this bias and to investigate methods that could address such myopia within the profession.

3.14. *Many of the tables could be moved to addendum for ease of reading*

Inclusion of tables for transparency and to avoid duplication

3.15. *Thesis does not contain conceptual framework as such*

Refer to 6.16

3.16. *Methodology not set out in a single place in the thesis; mixed qualitative, complex quantitative? Locating in case study method would strengthen case for meticulously carried out empirical work*

Refer to 6.17

3.17. *Chapter 1 could be worded: ...to what extent is it possible to...?*

The sub-question remains a yes/no question because the intention is to confirm the condition of marginality as the basis for arguing for the need to address the problem. I therefore considered it important to achieve a simple yes/no platform from which to present the critical evaluation of CAP as an appropriate method for intervention.

(Revision to chapter 1 main research question.)

3.18. *South Africa section could be stand-alone chapter*

Chapter 2 is seen as dealing with the same issue, albeit with the focus shifting from the international arena to the specific South African situation.

3.19. *Could have applied table on p133/4 as guiding framework to present case studies more analytically*

Revisions made to chapter 2

3.20. *Chapter 3 detailed interview bullet points could be in addendum; stronger narrative discussion around the interview responses could have been developed*

Refer to 6.7

3.21. *Human-Scale development mentioned early, only explained later in chapter - difficult to follow*

The first mention is in the introductory section to Statement of Problems and Opportunities, after which each augmentation is clarified. Expanding more in the introduction would lead to duplication

3.22. *Chapter 4 sub-headings report-style, do not do justice to critique & richness of narrative*

Style of headings and titles are intended as organisational tools, with the focus on brevity rather than elaboration.

3.23. *Chapter 5: Actual time students spent on site would be useful*

Revisions made to chapter 5

3.24. *Bibliographic style and referencing technique*

UP thesis guidelines: Burger, M. 2010. *Bibliographic Style and reference techniques*. Pretoria: UNISA Press.

3.25. *Reference list need not be numbered nor in table form*

Amended

4. Recommendations for inclusion into document

4.1. *2010 UDF could be fleshed out*

Revisions made to chapter 5

4.2. *Point out the value of the pedagogical inquiry as opposed to its professional counterpart*

As referred to in chapter 2, architectural practices in South Africa do not possess a sound knowledge base for engagement in informal settlement upgrades. I decided to pursue the investigation in a context where I could exert influence in terms of introducing the CAP platform as a method of engagement to students who already had a primary bachelor's degree in architecture, but who would still benefit from the extension of their skills base through the research process.

4.3. *Reference to action science/ reflection-in-action: Forester, Argyris and Schon*

Revision made to chapter 5 introduction

4.4. *Table to illustrate role of architects as policy makers/service provider - impact on participation & power*

I did not set out to investigate the extent of impact by the architectural profession, which would imply a different focus for the study. Especially in the South African context, the involvement of professionals in this arena is so limited that such an analysis would not have been useful to the main thrust of the investigation. Further research in this direction could certainly be considered for future articles however.

4.5. *Clarify whom/what architects are marginalized from - policy makers/ professional peers/ local communities?*

Revision to Chapter 1: Definition of Marginal

4.6. *Chapter 6: Discussion on values of different criteria related to design studio grading; new professionalism; tensions between design to control & enable; time issue in field work; course management; popularity of community work in architecture students...*

Chapter 6 indicators limited to the relationship between CAP methodology and key factors from chapter 3. Further elaboration on abovementioned themes fall beyond the scope of the evaluation in chapter 6.

Refer to discussions in chapter 5 and conclusions in chapter 7.

4.7. *Chapter 7: Consider participatory design as viewed from positive vantage points as well, such as Serageldin 1997*

Refer to chapter 7: Conclusion

4.8. *Revise tone of writing to be less unenthusiastic about impacts by architects; balance arguments through viewing participatory design as opportunity for enrichment*

The main thrust of my investigation was to establish to what degree the profession is making a significant contribution to the discourse on informal settlement

upgrading. The differences in the various countries indicated that certain attempts at intervention were more successful than others. On the whole, however, I considered it important to point out that these attempts do not impact significantly on the countries under investigation, no matter how positive they may be. The danger of overemphasizing these moments of success lies in assuming an ingenuous position from where more damage could be done, both to the marginalized people involved as well as to the relevance of the profession. Especially in the South African scenario, it is just such apparently naive intervention that has impacted negatively on communities affected by the N2 Gateway project in Cape Town. It was my intention to investigate the role of the profession in a critical light in order to avoid such unchecked zeal. Participatory design is a largely un-theorised approach in the South African context, which would benefit from further research.

- 4.9. *Include recommendations for future research on multidisciplinary CAP workshops/ studios*

Refer to chapter 7: Recommendations

- 4.10. *p13: Key definitions widened to conceptual framing eg 'civil society'*

Revision to chapter 1: Definition of terms

- 4.11. *p14: If project in Northern Cape can't be identified due to ethical concerns, state as such*

Revision to chapter 1

- 4.12. *p15: Need for augmentation of CAP to be stated = contribution to knowledge*

Revision to chapter 1

- 4.13. *Chapter 2: More descriptive title than 'Literature review'*

New chapter 2 title: Overview of approaches to informal settlement upgrade

- 4.14. *Chapter 3: Note at the beginning of the chapter to explain why interviews not inclusive of conventional architects for comparison*

Refer to 3.1

- 4.15. *Limitations of CAP could be explained, position explained - importance of critique and augmentation not to be underplayed*

Revision to chapter 4

- 4.16. *Chapter 5: Indicate relationship of authors Bennet, Casson et al to studio: students/ lecturers etc*

Revision made to chapter 5

- 4.17. *Chapter 5: Rounding off each case comparing with the others would be a way to provide synthesis; Synthesis of the chapter at the end would be useful to the reader*

Revision made to chapter 5

- 4.18. *Chapter 6: Tables should be placed in Appendix*

Inclusion of data as per discussion with supervisor: to avoid duplication

- 4.19. *Chapter 7: Refer to examiner's annotations in returned document*

Corrections made

- 4.20. *Chapter 7: Paragraph recapping approach to quantification would strengthen overall conclusion*

Revision to chapter 7

- 4.21. *Synthesis with reference to further research needed would round off thesis more appropriately*

Revision to chapter 7

5. Corrections to be included in document

- 5.1. *Clarify indicators to differentiate between induced/organic participation & power balance; Cuba?*

Revision to chapter 2

- 5.2. *Include figure for power balance: Morar Carioca*

The Morar Carioca programme does not present a change in the power structure from the FBP. Therefore no additional figure was introduced.

- 5.3. *Bibliography: Check references; Tovivich 2011 missing*

Correction made

- 5.4. *p189: Marxist position conflated with Rights-based one: sentence to be corrected*

Sentence removed

- 5.5. *p191: ANC did not originate as liberation movement from within informal settlements: black elite*

Revision made to chapter 3

- 5.6. *Correct typos indicated in returned document*

As indicated

- 5.7. *References: page 11: UP (2011) URL incorrect; Kremer & Field 2005 missing*

Correction made

- 5.8. *UN/ UNHabitat excluded from Bretton Woods - confusion in Chapt 2 & 7*

Corrections made in chapter 2 and 7

- 5.9. *p122: State commitment to upgrading/ NUSP to be nuanced*

Revision made to chapter 2

6. Questions

- 6.1. *How are percentages in chapter 6 calculated?*

A matrix was developed in which the relationship between Key Factors and the augmented CAP could be represented. The vertical axis lists the Key Factors contributing to the marginality of the profession to the discourse on informal settlements, emanating from chapters 2 and 3. The horizontal axis represents the CAP methodology, including the augmentations that were discussed in chapter 4. By considering each step of the augmented CAP, it was possible to indicate at each cross-reference point whether that particular step of CAP could address each factor listed on the vertical axis. The percentage derived from this is therefore representative of the full application of the augmented CAP in terms of the full spectrum of factors listed, which was calculated at 23%. Each year of investigation then represents a varying degree of rigour in terms of the full application of the augmented CAP, so that the percentage of efficacy could be determined again in terms of the full list of Key Factors on the vertical axis.

- 6.2. *p565: How was 23% calculated? Implication if reached?*

Refer to Question 6.1

- 6.3. *How do you see this alternative mode of practice being integrated into the architectural profession? Do you see it as a sub-speciality, as a core requirement of social responsibility? How do you suggest it being integrated into the curricula? Into licensing requirements?*

I propose that this alternative mode of practice could be integrated into the architectural mainstream over time as a holistic and responsive approach to engaging in the built environment. In the South African context, I see it as a core requirement of social responsibility, inseparable from formalised practice. The continued reluctance of the profession to engage in this arena deprives

our society at large of the potential contribution by the profession, while at the same time depriving the profession of relevance and identity. At this stage, the augmented CAP principles have been integrated into the Honours programme at the department of Architecture at the University of Pretoria, thereby introducing students to a method of engagement that some students have elected to pursue at Master's level. Individual instances of application to practice have emerged through students graduating from this programme, although it is still very tentative. Alignment between schools of architecture ensuring consistency is required, from where institutional acknowledgement and licensing requirements can occur. Only once these processes have been put in place, will it be possible for the profession to enter into discussion with government or other bodies to mitigate its current marginality.

- 6.4. *How relevant is this discourse to the western world, where formality is predominant? What argument can you make vis a vis the value of this type of practice in the developed world, or is it only of value to developing countries?*

Informal settlement upgrade is a topic largely located in countries that are labeled as 'developing' or 'emergent'. From my investigation, it is evident that the prevalence of informal settlements occurs where there is a disparity between the power structures of authority and the marginalized sectors of society that are underserved by those power structures. I do not rule out the possibility of such conditions existing in predominantly formal societies, as power relations are constantly in flux. The notion of an entire built environment profession being excluded from a critical aspect of urban development at any given time, however, would imply that this type of practice may be more urgently required in what has been termed 'developing' countries such as South Africa.

- 6.5. *What are the limitations of testing this strategy in an academic, as opposed to professional format? What are the benefits?*

The limitations of testing this strategy in an academic context revolve mostly around the inability to commit to real-world outcomes of engagement. The structured curriculum remains bound to institutionally defined outcomes, determining much of the course content, thus leaving very little space for experimentation and change. Time availability, lack of mobility, funding

constraints and abbreviation of the process all contribute to a potential lack of depth and rigour, which was addressed by way of iterative engagements. Relationships with community members were difficult to maintain due to the theoretical nature of the students' involvement. A professional format would have included a longer and deeper timeframe, although the critical reflection intervals may have been more difficult to manage. The benefits of testing this strategy within the academic context are largely in the ability to engage in critical reflection and iteration, as well as impacting on a large number of students who are then equipped with this approach as part of their education process. The impact was therefore felt less directly by the members of the hosting communities and more by the young professional candidates, who would then be able to take this approach further.

- 6.6. *You discuss the non-traditional architect-client relationship as one of the core factors to the marginalization of the practice in informal settlement upgrade projects. How can you envision a viable business model for a practice devoted to these types of participatory upgrade projects, assuming the appropriate policy framework?*

I do not envision practices devoted in their entirety to such projects. Rather, I propose that architects ought to be equipped to integrate and balance their engagement with society inclusively. This implies an approach to design and shared authorship that attaches the same value to the architect-client relationship irrespective of the fiscal value or size of the project. In redefining the relationship between the profession and the society it is meant to serve, value is mutually imparted. There are no particular answers proposed in the thesis regarding the structuring of such an architect-client relationship. I do propose, however, that it is incumbent upon our institutional bodies to address this issue.

- 6.7. *Explain validation & triangulation of research method in chapter 3 - why only 4 interviewees?*

The intention of the interviews in chapter 3 was mainly to corroborate the findings of chapter 2, for which I decided on a deductive rather than an explanatory narrative. This is in keeping with the way the question was posed in chapter 1, in which a simple yes/no was required, rather than an elaboration on the extent of the argument.

Refer to 3.1

- 6.8. *Views on transformation of mainstream practice: pro -bono/ community architecture as new professionalism including codes of conduct & fees?*

Refer to 6.3

- 6.9. *Chapter 5: research methods Critical Humanism - how is subjectivity & researcher's bias dealt with?*

Although the study was initially explorative and unstructured, it was biased in terms of my awareness of the profession's lack of concern with issues related to informal settlement upgrade. Due to my academic involvement, it became apparent that the way I was teaching post graduate students could impact on their approach, while at the same time providing insight into the mechanisms required to address this problem. Over the extent of the study period, I was increasingly influenced by the writings of Hamdi, with a deepened understanding of the possibilities and shortcomings of CAP. My process was therefore subjectively heuristic, relying on critical reflection, that became biased to the implementation of CAP principles in the curriculum as a positivist outcome of the study.

(Revisions made to chapter 5)

- 6.10. *Chapter 7: Views on new arch professionalism in relation to emergence of informal settlements?*

Refer to 6.6

- 6.11. *How to move forward?*

Having undertaken this research as part of the Honours programme at UP, the augmented CAP methodology has been integrated into this part of the curriculum. From the study it has become evident that the approach has value in addressing some of the factors limiting the profession from participating meaningfully in the context of informal settlement upgrade. However, being limited to a single module is seen as insufficient to achieve deep integration or synthesis. For this reason, I would consider it important to establish a layered platform of engagement with specific communities over the extent of the students' education. Each learning site has its own inherited structures that may be adjusted in terms of content or pedagogic intent to achieve such layering. At the UP Department of Architecture, such modules exist in the 2nd year of

study where community engagement is required and in the 3rd academic year where there is an opportunity for theoretical reflection on the core concepts underpinning CAP. The Honours module can therefore build on these preliminary exposures for deeper reflection. The year that is often seen as a mandatory gap between 3rd year and Honours presents itself as an opportunity for live build projects that could originate from the work done in the department. Should this be included as part of the students' and community's multiple interactions, it is foreseen that the possibility of mutual trust and ensuing authentic dialogue could occur.

Once such multi-layered assimilation of the augmented CAP is established at all the schools of architecture across the country, it would be possible for the South African Council for the Architectural profession (SACAP) to include such an outcome as part of their validation parameters. SACAP would only be in a position to undertake significant negotiations with policy writers and government bodies for the inclusion of the architectural profession into the service platform regarding informal settlement upgrade once such a competence level can be substantiated. Continuing Professional Development (CPD) workshops can assist in establishing the augmented CAP methodology in those professional practices that have not benefited from having it included in their curriculum.

I therefore see that the current marginality must be addressed from collaboration between schools of architecture to establish a sound educational basis that can impact on praxis over time. Only then can the required professional transformation be sustained.

6.12. *Challenges from findings in previous chapters?*

Challenges from findings in chapter 2: There is a lack of contribution from the architectural profession to the overall discourse on informal settlement upgrade, from policy, policy debates, development of programmes, transformation of practice, inclusion into academic curricula. The overall lack of meaningful engagement at scale is a challenge particularly in the South African context, with significant lessons to be learnt from Latin America and certain Asian countries.

From findings in chapter 3: More comprehensive confirmation of the central hypothesis could be achieved by broadening the scope and discussion of the interviewees. The outcomes of the interviews are limited to expert and considered opinions, thereby disregarding the mainstream profession and its institutional representatives. Chapter 4 is limited in its findings to the consideration of CAP as a positivist platform of engagement by post-graduate architecture students. Many other mechanisms or contributions to the discourse could have been considered. In this way, the thesis is limited to only one aspect of the discourse and in particular, to the context of pedagogy. Further investigations could follow from the confirmation of the central hypothesis. Challenges from the case study in chapter 5 point to the difficulty of introducing new methods of teaching and approaches to architectural design concerned with the complex synthesis of collective concerns in a fluid urban context. Traditional form-driven product-oriented design approaches have to be adapted to process-oriented responsive articulation of intangible components of space-making between memory, survival and aspiration. Such an approach to architecture is difficult to assimilate and even more difficult to evaluate when assessment panels are not immersed in this way of thinking.

6.13. *Provide meaning/ definition of 'discourse': referring to practice, policy, policy debates or academic debates?*

The term discourse is used in this thesis to collectively refer to policies, programmes and examples of practice related to informal settlement upgrade. Debates represented in literature, including books, collective essays, journal articles and conference themes have also been considered part of this understanding.

(Revisions to chapter 1: Definition of terms)

6.14. *Explain wall chart approach in simple terms & how it fits into the CAP methodology*

Refer to 4.15

6.15. *Chapter 6: How were percentages derived?*

Refer to 6.1

6.16. *Articulate overall conceptual framing*

The significance of the research resides within the global concern that the profession of architecture assumes a marginal position with regard to informal

urbanism. It is widely held that the profession can and ought to engage more critically within this context, both as a social responsibility to the inhumane conditions under which millions of people subsist, as well as a concern for the increased paucity of a relevant professional discourse. This concern translates into a conceptual framing that is aligned with the writings of Lopes de Souza (2012, 2014) in which he describes the need for a libertarian aspect to the debate on urban issues. The investigation is therefore biased towards discovering a potential transformation within the architectural profession to relate to the autonomy of those sectors of society currently marginalized through skewed power relations. (Revision made to chapter 1: Motivation for study)

6.17. *Articulate overall methodological framing, description of overall methodology*

The primary thrust of the research emanated from my own experience and observation as a practicing architect in which I became aware of my lack of preparation for engagement in the context of informal settlement upgrade. The investigation into international and local policies, practice and literature served to confirm the main problem, namely the fact that the architectural profession is indeed marginal to the informal settlement upgrade discourse. From here I sought to derive the most important causal factors contributing to this condition. These findings were then corroborated by means of the structured interviews with experts in the field. This first part of the thesis can therefore be considered to be largely descriptive, the analytical component consisting mostly of seeking points of convergence in confirmation of the central hypothesis. The second part of the thesis could be considered to fall into a positivist paradigm, where I sought to explore a possible solution to the stated problem. Community Action Planning was selected on the grounds that it had become recognised in several examples of 'alternative architectural practice' as the assumed platform of engagement in the context of informal settlement upgrade. A critical analysis of CAP was done prior to embarking on a process of action research in which CAP was tested, so that the model of research would be in consideration of the potential inherent in an augmented version of CAP. The second part of the thesis therefore comprises a mixed method of critical analysis of CAP, followed by immersed action research in which a heuristic approach to critical reflection was followed, culminating in

a quantified evaluation where the various applications of CAP are considered in terms of the causal factors contributing to the marginality of the profession in the discourse.

6.18. *Articulate the contribution to knowledge*

I think my main contribution lies in three aspects: Firstly, in the recognition that the architectural profession in South Africa, including its sites of learning as well as its institutional bodies, remains uninvolved in the issues related to informal settlement upgrade. In identifying the factors that contribute to this marginality, a framework has been created from which further research or proposals could be derived, the investigation of CAP being just one possible avenue. The second significant contribution lies in my critique of CAP as a platform for architectural engagement, so that the augmented version of CAP may serve as a richer and more comprehensive platform of engagement. Thirdly, I think the heuristic process of action research has contributed to an understanding of the challenges faced in teaching this approach to architecture within the constraints of an existing pedagogical structure. The lessons learnt in this process can be shared among schools of architecture, from where curricular alignment may ensue. Seen together, therefore, I believe this body of research may contribute to facilitating a transformation in the teaching and practice of architecture by means of the augmented CAP platform, thereby eventually unlocking the potential contribution of the profession to currently marginalized sectors of our society.