the themes of Forming, Spatial Practices, Material Matters, Language, and Systems Logic to structure a theoretical terrain relevant to landscape archi-
tecture design. Herrington introduces some key technological concepts
including cybernetics, cyber, actor–network theory, and a lesser extent
parametric design. For instance, she highlights the influence of Norbert
Wiener (a mathematician who advanced theoretical understandings
of cybernetics during the First World War) on McGray’s understanding of
change and control in ecological systems. However, Herrington’s engage-
ment with parametric modelling is surprisingly weak, offering no mention
of influential architecture theorists such as Lynn and Eisenman, who pro-
vided important foundations for understanding a parametric design process.

This oversight highlights two important issues in developing a produc-
tive critique of digital practice. First, it is vital to insert landscape archi-
tecture into a longer theoretical and technical history relating to digital
culture, technologies, and design. For instance, my book Landscape Archi-
tecture and Digital Technologies: Re-Conceptualising Design and Making,
co-authored with Heike Rahn, is considered a key text in recontextual-
izing an emerging digital practice of landscape architecture within a
history of technology crossing architecture, computer science, manufac-
turing, engineering, aeronautics, and animation.5 This research revealed
the dynamic interworking of hardware and software advancements with
theoretical thinking, influential design precedents and significant research
outcomes. A snap shot of this story is shown in Figure 1. Second, it is important for theorists and critics to have some engage-
ment with new technologies and emerging design methodologies—through
studio teaching or reflective discussions with designers. Karen McClokey
and Keith VanDyke through their practice PEG office of landscape archi-
tecture, along with their studio teaching at Penn Design, build their criti-
cal observations through direct experience of a digital design practice. For
academics without their own practice, design studio teaching provides

an important avenue, with Cantrell and Holzman, along with myself and
Heike Rahnann, using the design studio for exploring and thinking about
landscape digital practice. This exposure is vital for understanding software poten-
tials and limitations, new iterative processes and feedback loops, along
with the shift from implicit to explicit design processes that is a defining
attribute of parametric modelling. To critique a digital design practice is
to critique the design process—its formation, the establishment of param-
eters, observations, conclusions, and the gapology of the data. Looking to topics for future focus, a comprehensive engagement with Big
Data is a must. Big Data is understood as rapidly evolving data sets, often
generated in real-time, and characterized by variety, velocity, and volume.6

Collected through technological innovation such as remote sensing and
the Internet, Big Data is available in a range of media (including statistics,
texts, and images) and most significantly is unfiltered. Viewed as a major
‘disruptive innovation’, this unprecedented volume of information is shift-
ing epistemologies in all disciplines. For a site-specific discipline such as
landscape architecture, the implications and potential of Big Data deserve
the same amount of critical attention as was afforded in the 1990s.

Big Data is just one area where landscape architecture can make a crit-
ical contribution to the rapidly unfolding technological developments
shaping society, practice, and knowledge. There is much important work
to be done—both in understanding the ramifications (and potentials) of
technology for our own discipline and contributing our distinctive per-
pective on broader technologically centred debates. Ideally, in another
two years, it would be fantastic to see the book Digital Culture in Landscape
Architecture sitting alongside Antoine Picon’s Digital Culture in Architecture
on a designer’s bookshelf (whether virtual or physical). This book would
not be focused on representation, but would instead extend the theory and
critique of digital practice established so clearly by Picon in 2010 into
a wider ecologically and socially centered terrain.

To be fair, the issue here is not just with virtuous yet conservative stu-
dents, teachers, and practitioners. It also lies with landscape as a medium
itself. Unlike literature, film, theatre, art, and architecture, as an expres-
sive medium of our time, it has tended to do so in the dulcet tones of paradise
and arcarda. In that these eclogues are seldom more than a few lines, a few
trials and tribulations, a bit of idyllic pastoral beauty, they are trivializing
the very problems they purport to confront. For a politics of ecology and urbanism
one must be able to present a more complex picture of the world than
that of utopian, or as the case may be, dystopian alternatives to the status quo.

Looking to topics for future focus, a comprehensive engagement with Big
Data is required. As urban landscapes and urban systems become increas-
ingly data-driven, what are the implications for landscape architecture? How
will we respond to the data generated in real-time? How will we respond to
the shifting epistemologies in all disciplines? How will this impact on how
we design our landscapes and urban spaces? How will this impact on the way
we teach and practice landscape architecture in the future?

As the myth of the avant-garde goes, the alienated individual is necessar-
ily critical of his or her cultural context, which in turn fuels the creation
of utopian, or as the case may be, dystopian alternatives to the status quo.
Design schools generally still enshrine this modernist ideal of the critical
and creative designer as an agent of change, if not revolution. But
saturated with information, laden with debt, and up against the inher-
ently conservative nature of professions, the majority of students will dis-
appoint their idealistic teachers. But before we simply criticize the students,
the teachers need to also take some responsibility for romanticizing activism
from within the relative comfort of the academy, and inadvertently or
otherwise promoting their own forms of political and creative conformity.

Particularly worrying today is the fact that one can go from school to
school (globally) and the work on the walls looks and sounds much the same.
If this is the case, then claiming to be ‘critical’ is meaningless and
likely the very problem they purport to confront. For a politics of ecology and urbanism
one must be able to present a more complex picture of the world than
that of utopian, or as the case may be, dystopian alternatives to the status quo.

Looking to topics for future focus, a comprehensive engagement with Big
Data is required. As urban landscapes and urban systems become increas-
ingly data-driven, what are the implications for landscape architecture? How
will we respond to the data generated in real-time? How will we respond to
the shifting epistemologies in all disciplines? How will this impact on how
we design our landscapes and urban spaces? How will this impact on the way
we teach and practice landscape architecture in the future?

As the myth of the avant-garde goes, the alienated individual is necessar-
ily critical of his or her cultural context, which in turn fuels the creation
of utopian, or as the case may be, dystopian alternatives to the status quo.
Design schools generally still enshrine this modernist ideal of the critical
and creative designer as an agent of change, if not revolution. But
saturated with information, laden with debt, and up against the inher-
ently conservative nature of professions, the majority of students will diss-
appoint their idealistic teachers. But before we simply criticize the students,
the teachers need to also take some responsibility for romanticizing activism
from within the relative comfort of the academy, and inadvertently or
otherwise promoting their own forms of political and creative conformity.

Particularly worrying today is the fact that one can go from school to
school (globally) and the work on the walls looks and sounds much the same.
If this is the case, then claiming to be ‘critical’ is meaningless and
likely the very problem they purport to confront. For a politics of ecology and urbanism
one must be able to present a more complex picture of the world than
that of utopian, or as the case may be, dystopian alternatives to the status quo.

Looking to topics for future focus, a comprehensive engagement with Big
Data is required. As urban landscapes and urban systems become increas-
ingly data-driven, what are the implications for landscape architecture? How
will we respond to the data generated in real-time? How will we respond to
the shifting epistemologies in all disciplines? How will this impact on how
we design our landscapes and urban spaces? How will this impact on the way
we teach and practice landscape architecture in the future?

As the myth of the avant-garde goes, the alienated individual is necessar-
ily critical of his or her cultural context, which in turn fuels the creation
of utopian, or as the case may be, dystopian alternatives to the status quo.
Design schools generally still enshrine this modernist ideal of the critical
and creative designer as an agent of change, if not revolution. But
saturated with information, laden with debt, and up against the inher-
ently conservative nature of professions, the majority of students will diss-
appoint their idealistic teachers. But before we simply criticize the students,
the teachers need to also take some responsibility for romanticizing activism
from within the relative comfort of the academy, and inadvertently or
otherwise promoting their own forms of political and creative conformity.

Particularly worrying today is the fact that one can go from school to
school (globally) and the work on the walls looks and sounds much the same.
If this is the case, then claiming to be ‘critical’ is meaningless and
likely the very problem they purport to confront. For a politics of ecology and urbanism
one must be able to present a more complex picture of the world than
that of utopian, or as the case may be, dystopian alternatives to the status quo.

Looking to topics for future focus, a comprehensive engagement with Big
Data is required. As urban landscapes and urban systems become increas-
ingenly data-driven, what are the implications for landscape architecture? How
will we respond to the data generated in real-time? How will we respond to
the shifting epistemologies in all disciplines? How will this impact on how
we design our landscapes and urban spaces? How will this impact on the way
we teach and practice landscape architecture in the future?

As the myth of the avant-garde goes, the alienated individual is necessar-
ily critical of his or her cultural context, which in turn fuels the creation
of utopian, or as the case may be, dystopian alternatives to the status quo.
Design schools generally still enshrine this modernist ideal of the critical
and creative designer as an agent of change, if not revolution. But
saturated with information, laden with debt, and up against the inher-
ently conservative nature of professions, the majority of students will diss-
appoint their idealistic teachers. But before we simply criticize the students,
the teachers need to also take some responsibility for romanticizing activism
from within the relative comfort of the academy, and inadvertently or
otherwise promoting their own forms of political and creative conformity.

Particularly worrying today is the fact that one can go from school to
school (globally) and the work on the walls looks and sounds much the same.
If this is the case, then claiming to be ‘critical’ is meaningless and
likely the very problem they purport to confront. For a politics of ecology and urbanism
one must be able to present a more complex picture of the world than
that of utopian, or as the case may be, dystopian alternatives to the status quo.

Looking to topics for future focus, a comprehensive engagement with Big
Data is required. As urban landscapes and urban systems become increas-
genly data-driven, what are the implications for landscape architecture? How
will we respond to the data generated in real-time? How will we respond to
the shifting epistemologies in all disciplines? How will this impact on how
we design our landscapes and urban spaces? How will this impact on the way
we teach and practice landscape architecture in the future?

As the myth of the avant-garde goes, the alienated individual is necessar-
ily critical of his or her cultural context, which in turn fuels the creation
of utopian, or as the case may be, dystopian alternatives to the status quo.
Design schools generally still enshrine this modernist ideal of the critical
and creative designer as an agent of change, if not revolution. But
saturated with information, laden with debt, and up against the inher-
ently conservative nature of professions, the majority of students will diss-
appoint their idealistic teachers. But before we simply criticize the students,
the teachers need to also take some responsibility for romanticizing activism
from within the relative comfort of the academy, and inadvertently or
otherwise promoting their own forms of political and creative conformity.

Particularly worrying today is the fact that one can go from school to
school (globally) and the work on the walls looks and sounds much the same.
If this is the case, then claiming to be ‘critical’ is meaningless and
likely the very problem they purport to confront. For a politics of ecology and urbanism
one must be able to present a more complex picture of the world than
that of utopian, or as the case may be, dystopian alternatives to the status quo.