Towards Creative Learning Spaces?

Boys, Dr. Jos


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EXPLORING CREATIVITY
IN POSTSECONDARY LEARNING & TEACHING

Towards Creative Learning Spaces?
Dr. Jos Boys
how creativity intersects with space….
what kinds of spaces enable...

- curiosity, awareness, inquiry, empathy, problem-seeking, tacit knowledge, lateral thinking, the non-verbal, exploration, discovery, messiness, experimentation, ideas, uncertainty, managing ambiguity, risk-taking, divergence, complexity, nuance, flow, failure, learning from mistakes, prototyping, tinkering, thinking through doing, emergence, inventiveness, innovation, motivation, engagement, commitment, effort, repetition, iteration, distraction, incubation, reflection, self-direction, participation, sharing, interaction, integration, communication, collaboration, co-creation, persuasion, beauty, value, transformation ......
OVER - SIMPLIFIED

FORMAL  PASSIVE  ONE-TO-MANY

NOT EITHER/OR:
MANY DIFFERENT SPACES NEEDED

NEW CONCEPTUAL & PEDAGOGIC FRAMEWORKS

INTEGRATED IMPLEMENTATION

MANAGEMENT OF CHANGE

INFORMAL ACTIVE MANY-TO-MANY
How creativity intersects with space...

What kinds of spaces enable creativity...

> away from over-simplified binary oppositions towards complex learning & spatial inter-relationships

> away from appearances towards educational processes & practices

> away from functional provision towards enabling conditions for learning

better understand how space and the learning that goes on in it are related.....

Learn more about what are the enabling conditions for creative learning spaces...
‘Learning space is a term bandied about which people think has a shared understanding. I would think of learning space as a physical space where you learn stuff, but it could just be reading a book. It could be somewhere you go to do something or it could be in your head, what you have chosen to do. Mainly, though it is having a particular physical space connected to a task, so going to work is not being at home or going to a jewellery class.’

‘Learning space is not a term I use, I think of it as “education speak” – quite alien.’

‘Learning is the process whereby a sentient individual or group acquires a new and valuable insight into the properties, constraints and affordances of their (physical, social or cognitive) environments.’

‘Learning space is what is inside you really – and the relationship between that and the physical space, curriculum and timetables.’

‘A good learning space for me is a frame of mind, rather than an actual space. It is internal rather than external.’

‘Learning is engaged awareness (for a purpose?)’

‘The “learning space” doesn’t make any difference unless the teacher isn’t engaging and then the space could become important.’

‘What students want from the space is a different kind of liberation.’

‘Learning happens all the time and everywhere. You can teach something in the studio, but its waking up in the morning, that’s when it “clicks”.’
spaces

pedagogies

technologies
COMPLETELY ENTANGLED!

spaces

pedagogies

technologies
educational practices

designed environments & technologies

Participant encounters with practices and environments
LEARNING TAKES PLACE THROUGH OUR EVERYDAY NEGOTIATIONS OF PEDAGOGIC CONTENT AND PRACTICES AS EXPERIENCED THROUGH OUR ENCOUNTERS WITH OTHERS, SPACES AND ARTEFACTS THROUGH TIME.

IT IS HOW WE ATTEMPT TO MAKE SENSE OF, AND SURVIVE IN, THE WORLD.
LEARNING TAKES PLACE THROUGH OUR EVERYDAY NEGOTIATIONS OF PEDAGOGIC CONTENT AND PRACTICES AS EXPERIENCED THROUGH OUR ENCOUNTERS WITH OTHERS, SPACES AND ARTEFACTS THROUGH TIME.

IT IS HOW WE ATTEMPT TO MAKE SENSE OF, AND SURVIVE IN, THE WORLD.

SPACE MATTERS (SOMETIMES, IN SOME WAYS) BUT IS SO ORDINARY AND TAKEN-FOR-GRANTED THAT WE OFTEN FAIL TO PAY ATTENTION TO ITS EFFECTS ON OUR NORMAL ROUTINES.
WE ARE ALREADY CREATIVE IN OUR NEGOTIATIONS WITH LEARNING SPACES AS WE PERPETUATE, ADAPT, CHALLENGE OR TRANSFORM CURRENT EDUCATIONAL, SOCIAL AND PERSONAL PRACTICES.
WE ARE ALREADY CREATIVE IN OUR NEGOTIATIONS WITH LEARNING SPACES AS WE PERPETUATE, ADAPT, CHALLENGE OR TRANSFORM CURRENT EDUCATIONAL, SOCIAL AND PERSONAL PRACTICES.

CREATIVE PEDAGOGIES AND SPACES ARE ABOUT ENABLING THESE EVERYDAY LEARNING PROCESSES TO BECOME EXPLICIT, POSITIVE, ENGAGING, INFORMED, CRITICAL, COLLABORATIVE AND TRANSFORMATIVE.
Students experiences of, and negotiations through, the learning spaces of post-secondary education
Melhuish, C., (2009) *Ethnographic case study: perceptions of three new learning spaces and their impact on the learning and teaching processes at the Universities of Sussex and Brighton*: unpublished paper commissioned by InQbate (the Centre for Excellence in Teaching and Learning in Creativity) and the Centre for Excellence in Teaching and Learning in Design (CETLD)

See also: Boddington & Boys (Eds) (2011) *Reshaping Learning: A Critical Reader*
Experiential learning by doing

Cognitive: thinking about learning

Emotional: feelings about learning

Effective learning

Retention and achievement

Engagement and belonging

Knowledge and skills
performativ

enacting everyday social and spatial routines

enacting the routines of ‘learning’

experiential

learning by doing

intellectual

tinking about learning

thinking about education

thinking about the world

affective

feelings about learning

feelings about specific situation

feelings about life-world

cognitive

thinking about learning

thinking about education

thinking about the world

emotional

feelings about learning

feelings about specific situation

feelings about life-world

KNOWLEDGE AND SKILLS

ENGAGEMENT AND BELONGING

EFFECTIVE LEARNING

RETENTION AND ACHIEVEMENT
performative

experiential

processes

interpretations of, and interactions with, curriculum, timetabling, institutional identity, educational setting and wider context

meanings

perceptions and experiences of setting, atmosphere, environmental conditions, furniture and fittings

cognitive

intellectual

attitudes to, and feelings about teacher and peer relations, learning encounters and sequences, pedagogic practices

emotional

affective

relationships
University of Northumbria, Newcastle upon Tyne, UK
Figure 1 Example of a Student’s Photo-Diary of His/Her Learning Spaces through Time

WHAT DO YOU THINK ABOUT THIS SPACE?
A large, open space with multiple desks. The room is well-lit with natural light. It feels spacious and conducive to learning.

ANY OTHER COMMENTS
The room is very quiet and conducive to focused work. The lighting is great, and the windows provide nice views.

WHAT DID YOU PHOTOGRAPH AND WHY?
A large, open area with plenty of desks. The room is well-lit and provides a comfortable learning environment.

ANY OTHER COMMENTS
The room is very quiet and conducive to focused work. The lighting is great, and the windows provide nice views.

WHAT DID YOU PHOTOGRAPH AND WRITE?
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ANY OTHER COMMENTS
The room is very quiet and conducive to focused work. The lighting is great, and the windows provide nice views.
But the uni, there’s a lot more independence than I was expecting in terms of, like, if you’re thinking about an assignment, no one says, “There’s an assignment due soon,” you’re just expected to have gone off and read the module guide and be aware that there’s an assignment and be aware how to write it and be aware of what you need to write in it, and yeah, it’s a lot more . . . There’s very little guidance here, but it’s to be expected because there are so many students compared to school. But it is still quite a shock.
We’re kind of caught in this bind that they want it to be different but when it is different they don’t know how to respond to the difference and they won’t take the guidance we offer them to help them overcome that difference, and so it’s self-perpetuating. We do get a lot of students that just go down those ever-decreasing circles, and you can see it happening in the first year, and part of me thinks we should do more and the other part thinks, “Well, they’re adults.”
<table>
<thead>
<tr>
<th>Expectations of, and Attitudes to, Learning and University Life</th>
<th>Coordinating Where and When to Study</th>
<th>Perceptions and Experiences of Learning Spaces</th>
</tr>
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<tbody>
<tr>
<td>What students “bring” with them</td>
<td>Preferred/possible patterns of study/social life</td>
<td>Environmental comfort and functional conditions</td>
</tr>
<tr>
<td>Processes of “becoming” and “being” a student</td>
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<td>Negotiating gaps between expectations and realities</td>
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### Figure 4: Diagram Outlining Initial Coding of What Being a University or College Student Entails

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### Figure 5: Suggested Strategic Issues for Campus Planning

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‘minimum conditions for creativity’ project
London Metropolitan University, London & British Higher School of Art and Design, Moscow
PHYSICAL AND VIRTUAL SETTINGS

'A room of one's own' - student project, London Metropolitan University
UNIVERSITY OF BRIGHTON, UK – student led adaptation of ‘left-over spaces for informal learning
Watts Window is finally installed... yipeee!!

Before..
UNIVERSITY OF ULSTER, BELFAST, NORTHERN IRELAND: participatory design, informal student learning space

THE COMPETITION!

we have the SPACE. do you have the DESIGN?

WIN £1000 BY DESIGNING YOUR VERY OWN STUDENT SOCIAL LEARNING SPACE
WHAT IS THE COMPETITION?
with a budget of £10,000 could you take an empty room in UUJ and transform it into an exciting new space for students?

students from any degree can apply!
every team needs designers, budgeters, marketers, project managers or anyone with a creative mind

WHY SHOULD I ENTER?
• be part of improving Ulster
• looks great on your CV
• goes toward your EDGE award
• winning team leader receives formal accreditation in project management
• a chance to be creative

come along to the launch day
WEDNESDAY 9TH OCTOBER 2013
LOUGHVIEW SUITE 1:30PM-3:30PM
ENTER YOUR TEAM NOW!
towards generating the enabling conditions for creative learning spaces
The qualities of good learning spaces

At the UAL Making Spaces event, I ran a workshop asking the question I have been asking a lot of people: what makes a good learning space? Groups were asked first to discuss their own experiences of ‘good’ and ‘bad’ learning spaces and then to come up with a short list of key ‘good’ characteristics. Again, there was a lot of emphasis on the whole experience of learning, not just its physical spaces. For example - well-orchestrated/good choreography/managing expectations/explicit rules of the game. Or safe enough to take risks/confidence giving/non-precious/belonging. Or spirit of discovery/dynamic/valued. Others focused on basics - fit for purpose/environmental comfort/functional/inviting/organised (not left with previous activities ‘mess’). And colour/variety (avoid ubiquity)/daylight/good acoustics/airflow/proper equipment/good catering.

Interestingly, a lot of the follow-up discussion was less about ‘high-quality’ designed facilities and more about how to improve the feel of existing spaces - about ‘ownership’ (who, how) and the power of students being able to appropriate space; about the importance of space feeling valued rather than neglected; about what types of spaces might sit between open access/flexible and dedicated/single use; and about how spaces might be ‘refreshed’ so they do not become too familiar, but retain the potential of engagement/unexpected outcomes.
dSchool Stanford University, USA
WE ARE LOOKING FOR 35 BRAVE SOULS. ARE YOU ONE OF THEM? GO! APPLY FOR KAOSPILOT TEAM 23

BECOME A KAOSPILOT

APPLICATION FOR 2016 TEAM 23 IS ON!

Are you seeking to learn, create, and contribute to positive change? Are you ready to step and explore the limits of what is possible?
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Our mission is to educate, inspire and empower leaders to apply exponential technologies to address humanity's grand challenges.

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—BloombergTV

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SingularityU Chile Summit
Register today!

Executive Program
Apply Today!

Check out the New Singularity Hub...
Even more discussions, stories and topics.
what kinds of spaces enable...

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Principles for Inclusive Teaching
Meeting the Potential of Every Learner Within a ‘Diversity Of Learners’

Design Intentional Curriculum
Intentional curriculum design is about anticipating and responding to the multitude of backgrounds, abilities, aspirations and ways of engaging that make up the diverse student cohort. At the core of intentional and inclusive curriculum design is the desire to promote equality and reflect the perspectives and experiences of a pluralistic society. This can be achieved when you:
- Anticipate, respond and respect the differing life experiences and personal circumstances students contribute to the learning environment. Draw on these to enhance the learning of all students.
- Adapt curriculum in response to variations in teaching context, student learning styles and wider stakeholder requirements.
- Draw upon content, research, and learning activities to represent a range of worldviews.
- Design learning activities to suit different teaching spaces.

Teach Explicitly
An explicit approach to teaching recognises that learning in the tertiary domain is culturally based and multi-dimensional: from the initial transitions into Western academic literacies through to workplace and research skills. Understanding specialised language, concepts and the underlying cultural values used across disciplines helps students to participate in unfamiliar environments. This can be achieved when you:
- Build upon the prior knowledge and experiences of students.
- ‘Scaffold’ learning by unpacking the academic, discipline and cultural knowledge necessary for students to participate; move from simple to more complex tasks; speak and write in accessible language.
- Explain to students what is required of them to be successful at each stage of their studies, both in learning activities and assessment tasks.
- Encourage help-seeking behaviour and provide information on how to access academic support.

Offer Flexible Assessment and Delivery
Offering a range of assessment formats allows students to identify and work from their strengths and may reduce the need for educators to provide individualised assessment tasks. Flexible delivery gives students a range of methods from which they can optimise their learning styles and skills and manage time constraints and helps educators cater to a range of preferred learning styles and needs. This can be achieved when you:
- Build in options for the way learning outcomes and assessments can be demonstrated.
- Inform students well in advance when assessments are due and schedule tasks across the semester timetable so that students can manage their time effectively.
- Involve students in assessment design and evaluation.
- Offer a variety of teaching strategies and resources to meet different learning styles, needs and perspectives.
- Optimise technology to offer students variety in mode and flexibility so they can study at times and in places that suit them.

Develop a Feedback-Rich Environment
A feedback rich environment fosters learner confidence and motivation, and promotes autonomy. It tells students how well they are doing, what they can do to improve, and affirms their ideas and efforts. For educators, providing constructive feedback to students shows us how effective our teaching is and where students require help. This can be achieved when you:
- Plan and create multiple opportunities for feedback: early feedback in formative assessments, immediate feedback provided in-class or real-time online, delayed feedback on major assessment tasks.
- Include opportunities for peer feedback and self-assessment.
- Support students to identify how they can seek, evaluate and use feedback effectively.

Build a Community of Learners
When opportunities are given to students to build strong, positive relationships and a sense of belonging, they will feel valued, listened to, and respected. To be successful, all learners must feel safe in the learning environment, feel respected for the perspectives they bring, and feel confident they will succeed. This can be achieved when you:
- Get to know your students, respect each student as an individual, and communicate regularly.
- Have high expectations of all learners.
- Create opportunities where students can get to know each other through purposeful group learning and learning communities.
- Facilitate learning where students are confident to contribute voluntarily, rather than being singled out.
- Ensure students understand the importance of respectful communication to promote safe learning environments.

Practise Reflectively
Reflective practice acknowledges that self-examination of our beliefs, attitudes and teaching practice helps us to recognise where potential for exclusion exists. Using this knowledge, we can implement strategies to ensure our practice is inclusive. This can be achieved when you:
- Analyze the beliefs, attitudes, values and assumptions you bring into the learning environment to evaluate whether these may have an impact on student learning and participation.
- Practice transparently to cultivate open and respectful relationships.
- Evaluate and enhance teaching practice regularly through self-reflection, peer observation, student feedback and professional development.
- Use feedback to continuously adapt and refine teaching practice.

I can see my world
I am supported
I am in charge of my learning
I belong
I know what I have to do
I am valued

www.rmit.edu.au/teaching/inclusive
<table>
<thead>
<tr>
<th>Pedagogical activity</th>
<th>Pedagogical attribute</th>
<th>Process steps</th>
<th>Behavioural premise</th>
<th>Spatial icon</th>
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<td>Instructor lead</td>
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<td>Assess understanding</td>
<td>Knowledge is in one source</td>
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<td>Focus on presentation</td>
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<td>Learner-centered</td>
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<td>Apprentice model</td>
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<td>Leaderless</td>
<td>Recognise need</td>
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<td>Egalitarian</td>
<td>Divergent thinking</td>
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<td>Incubate</td>
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<td>Privacy</td>
<td>Interpret into product / innovation</td>
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<td>Share information</td>
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<td>Active learning</td>
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<td>Knowledge is dispersed</td>
<td>Review data</td>
<td>Make decisions</td>
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<td>information is shared</td>
<td>Generate strategy</td>
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<td>Leader sets final direction</td>
<td>Plan</td>
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<td>Situation is protected</td>
<td>Implement one course of action</td>
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<td>Semi-formal to Formal</td>
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<td>Passive / active learning</td>
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Environments for Creating Knowledge

Creating knowledge means we move through a highly creative, often messy, repetitive process that culminates in an innovation (a product of some sort). Trial and error and keeping the process transparent and open to others in the team is critical (information persistence). In knowledge-creating, collaborative settings, employees/learners’ individual tools and specific expertise form an integrated network of expertise. The exchange among collaborators is seen as interaction rather than feedback, because they equally participate in the construction of shared knowledge. Knowledge is neither located in, nor owned by, single individuals, but distributed in the network. The cognitive processes in their group depend on the total knowledge distributed across the group, its environment and artifacts, resulting in what in the literature is referred to as ‘distributed cognition’ (p. 17). People who work/learn in these scenarios are often referred to as “high-performance workers” (p. 12). This type of work/learning dynamic requires people to have greater control over the physical adaptation and transformation of the setting. A more fluid, or easily transfigured furniture solution is required for people to “work” the way they need to while reinforcing the organization’s or corporation’s values. Yet, what do we know about the creative person’s needs?

Leonard and Swap have this to say about creativity.

Creativity is a process of developing and expressing novel ideas that are likely to be useful. Four important features of this definition include:

- Creativity involves divergent thinking, breaking away from the familiar, establishing ways of seeing and doing. Divergent thinking produces ideas that are novel.
- Novel ideas must be expressed or communicated to others.
- Creativity must also include convergent thinking, some agreement that one or more of the novel ideas is worth pursuing.
- The agreed-on option must have the potential of being useful, for addressing the problem that invited the development of options.
The end result of the creative process is an innovation. Innovation is the embodiment, combination, and/or synthesis of knowledge in novel, relevant, valued new products, processes, or services. (pp. 6-7).

The behavioral premise in such an environment is to move knowledge from the abstract to reality; from an idea to a product—the act of innovation. Several steps support this endeavor:

- Research to become knowledgeable about the problem under study;
- Define the innovation opportunity or problem;
- Generate options and recognize the need for a new solution;
- Incubate—let the job rest and distill over time in order to process and digest information; and
- Select an option and interpret into a product idea.

Since groups have "the potential advantage over an individual because multiple reservoirs of deep expertise can be tapped" (p. 10), the archetypes presented here are based on group efforts. The creation of knowledge (intellectual capital) and ultimately a product is very important for moving an organization forward. Therefore, the creative contingent is often protected from public view (e.g., research lab, project room, "idea central"). Parts, pieces, artifacts, and graphics are left exposed for the group to use, remember, and stay stimulated (information persistence). As the process indicates, there is a need to collaborate and delve socially into the act of creating, as well as the need for thoughtful reflection or mindless activity (e.g., a ping pong table area). Tom Peters' study at MIT where Allen found that people need to be within 30 feet of one another in order to communicate effectively. If not, they might just as well be on another planet. Thus, proximity is critical to a team's success. This ECK-setting type requires more holistic thinking in order to provide guidelines for planning. Two distinct areas must be included and yet interrelated: (1) a place of refuge to think and incubate, and (2) a place to collaborate and share information. Steelcase Inc.'s study more European characteristic of collocating private areas and group spaces as one workplace need and this combination is often referred to as the "caves and commons" areas. Examples of these settings may include project rooms, team spaces, and group/project offices. Even though there is one
Figure 16: Applications for Creating Knowledge—("Caves and Commons")

Example: Project Room
Behavioral Attributes:
- Individual private spaces
- Sociopetal arrangements
- Focal point delivery
- Forehead vision is not blocked
Setting Attributes:
- "Landscape" layout
- Flexible or "wrenchable" furnishings
- Information persistence
- High technology
- Zoned light levels

Individual retreat area
Group interaction area
Artifact storage
Information persistence
Privacy from public

INTEGRATE INDIVIDUAL IDEAS THROUGH DOING & INCUBATION WITH GROUP INFORMATION SHARING, COLLABORATION AND CRITIQUE.

ENABLE DURATIONAL PERSISTENCE
INTEGRATE INDIVIDUAL IDEAS THROUGH DOING & INCUBATION WITH GROUP INFORMATION SHARING, COLLABORATION AND CRITIQUE.

ENABLE DURATIONAL PERSISTENCE

SUPPORT STUDENT AS WELL AS STAFF ADAPTABILITY, CUSTOMISATION AND CO-DESIGN OF INTERACTIONS AND RELATIONSHIPS (......AND SPACES)
RECOGNISE LEARNING AS UNDERPINNED BY IMPLICIT AND UNSPOKEN INTERACTIONS ACROSS INTELLECTUAL, AFFECTIVE AND PERFORMATIVE DIMENSIONS.
RECOGNISE LEARNING AS UNDERPINNED BY IMPLICIT AND UNSPOKEN INTERACTIONS ACROSS INTELLECTUAL, AFFECTIVE AND PERFORMATIVE DIMENSIONS.

MAKE RULES OF THE GAME EXPLICIT

PROVIDE SAFE BASE FROM WHICH TO EXPERIMENT, TAKE RISKS AND INNOVATE
RECOGNISE LEARNING AS UNDERPINNED BY IMPLICIT AND UNSPOKEN INTERACTIONS ACROSS INTELLECTUAL, AFFECTIVE AND PERFORMATIVE DIMENSIONS.

MAKE RULES OF THE GAME EXPLICIT

PROVIDE SAFE BASE FROM WHICH TO EXPERIMENT
TAKE RISKS AND INNOVATE

SUPPORT ANYTIME ACCESS TO A MULTIPlicity OF RESOURCES AND SPACES; AND MULTIPLE ROUTES THROUGH LEARNING EXPERIENCE
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