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**Orienteering with Double Moss:  
The Cartographies of half/angel's *The Knitting Map***

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**ABSTRACT**

This article analyses *The Knitting Map*, a large-scale, durational textile installation by the performance production company *half/angel*. It examines the ways in which technology was used in *The Knitting Map* to connect the weather and the levels of busyness in Cork City (Ireland) to a community of knitters, and a year-long process of hand-knitting. The article focuses on processes of translation as a fundamental operation within this ambitious work; translation of digital data into knitting patterns, as well as technology into something familiar to a community of knitters. The article suggests that by contextualising *The Knitting Map*'s digital technology, the processes and language of "knitting Cork" became dialogic across generations. *The Knitting Map* is then framed within a broader history of radical textile projects, and community art works. The article closes with an analysis of a year-long series of knitting performances by Jools Gilson-Ellis, staged in public sites in Cork City and used as a performative strategy of engaging participants both actually and symbolically in the project.

**Deborah Barkun, Ph.D.**

Deborah Barkun is an Assistant Professor of Modern and Contemporary Art History at Millersville University of Pennsylvania. She holds a B.F.A. from Carnegie-Mellon University in printmaking and an M.A. and Ph.D. in History of Art from Bryn Mawr College. She is the recipient of a series of research and teaching awards including a Whiting Fellowship in the Humanities (2004 – 2005). She has presented papers at Vanderbilt University, the Philadelphia Museum of Art, the Pennsylvania Academy of Fine Arts, and the Philadelphia Art Alliance. Her essay “Four-letter Words: *LOVE* and *AIDS* in the Age of Appropriation and Proliferation” will appear in the forthcoming *Eros and Ambiguity: Essays on Love throughout the Ages*. She is currently working on a book entitled *Art, AIDS, and Collective Identity: The Collaborative Body of General Idea*.

**Jools Gilson-Ellis, Phd.**

Jools Gilson-Ellis is a choreographer, poet, performer and installation artist. She is the Director of the performance production company *half/angel* and Lecturer in English at University College Cork. Her work has been performed and exhibited internationally, and she has received bursaries and awards from the Arts Council of Ireland, Arts Council of England, RESCEN (Centre for Research into Creation in the Performing Arts), the Ésmee Fairbairn Foundation and others. Her work has been co-produced by the Banff Centre for the Arts (Canada) and the Institute of Choreography and Dance (Ireland). Jools holds a PhD in Theatre & Performance Studies from the University of Surrey, and has taught performance internationally. She publishes in the fields of feminist theory and performance studies. She lives and works in Cork. [www.halfangel.ie](http://www.halfangel.ie)

**half/angel**

half/angel has been making performance and visual art work for theatres, galleries and outside spaces since 1995. The company works across disciplines and sites, as well as across a range of urban and rural contexts. These have included an urban dock, a rural headland, a university quadrangle and a community of knitters. We are interested in how to take your breath away. We have projected poetry onto falling rice; threaded 40,000 sewing needles with red thread and hung them from a ceiling; we have made air ghosts for dancers to tangle with in performance; we've asked you to take off your socks and walk on grass inside the gallery, and we have dissolved reveries in water for you to find again. [www.halfangel.ie](http://www.halfangel.ie)

## **Orienteering with Double Moss: The Cartographies of half/angel's *The Knitting Map***

**Deborah Barkun & Jools Gilson-Ellis**

*In half/angel's project The Knitting Map, software was written to translate information about how busy Cork City was, into knitting stitches, and what the weather was like, into wool colour. This information was uploaded to digital screens as a simple knitting pattern (knit this stitch in this colour), and volunteer knitters sat at twenty knitting stations in a wooden amphitheatre in the crypt of St. Luke's Church and knitted. And they did this every day for a year . . .*

### **Jools: Introduction**

*The Knitting Map* was a large-scale, durational textile installation commissioned by the executive of the European Capital of Culture: Cork 2005. As a completed textile sculpture, it has also been exhibited at the Millennium Hall in Cork, Ireland (2006 – see Image 1), and at the Ganser Gallery, Millersville University in Pennsylvania (2007). The project was always an audaciously ambitious one; *half/angel* rehearsed for it by spending ten years making contemporary dance & installation works which involved various motion-sensing digital technologies, and by honing a poetic sensibility that aspired to 'trick' computers into being able to see the ache of emotion. During this decade, our model of motion was the dancer's body, or the body of the individual gallery visitor. In *The Knitting Map*, we exchanged an individual corpus (often a highly trained one), for the shifting turning energies of a city. We monitored its movements, and its weather, and we knitted it.

We are translators. Our performance and installation practice had always involved the translation of one gesture into another. I wanted a satellite to provide the data about how busy Cork city centre was, but no one would loan us one, and we couldn't afford our own, so we settled for four city centre CCTV cameras, and became signatories to promises to the Gardai (the Irish police) that we wouldn't publicly broadcast or display the images we captured. Richard Povall was the only person to look directly through the eyes of these cameras, and he did so not to witness the events they captured, but to use software to analyse just how much movement was happening in front of their eyes. Through processes of averaging and collating<sup>ii</sup> the data from these cameras, Richard programmed the system to translate how busy the city was into one of 25 knitting stitches of equivalent complexity.

How do you knit the weather? In his design of the software used to average copious amounts of data produced by our weather station, Richard attempted to capture a sense of the phenomenal experience of the elements. His programming combined a range of different data streams including temperature, precipitation and wind speed, and scaled them to produce a number between 1 and 26 for every day of the year.<sup>iii</sup> Our palette of colours for the map were a muted range of mauves, blues, greens, greys, creams, and other earth tones, (but no reds, oranges or yellows), and we mapped these colours onto Richard's 26 gradations of Cork weather. So that every day our system generated a single stitch / colour combination

### **Knitting for a Year:**

Before we open, whoever is on duty checks the knitting from the previous day, picks up any dropped stitches, finishes any rows, and turns on all the digital screens. If the weather has shifted the colour, then all the wool needs to be changed and brought in baskets from our shelves of coloured wool, and attached to the knitting. Someone is sent over to the corner shop to pick up fresh scones for elevenses and bread for lunch. We open at 10am and in come the knitters sometimes in gangs, sometimes one at a time. And alongside our regular knitters are visitors of all kinds, come to view the installation, to see the wonder of a year of knitting beginning to emerge. We leave whatever we are doing – knitting, or teaching to knit, or making tea to welcome these visitors, and to explain the work, and what we are trying to do. We always invite visitors to knit if they would like, to learn if they don't know how, and if not to take their time to watch our knitters at work.

We are translators. But our greatest interpretive challenge was not to do with technology, but with opening the work in a profound way to a community of knitters, mostly unfamiliar with the discourse of contemporary arts. We worked hard to recruit and develop this community in the years prior to 2005, but a bigger challenge was explaining a complex conceptual art project before it had begun. Many people thought it was going to be a literal map of the city, and whilst this felt like anathema to us, it was a lesson in the apprehension of contemporary art & technology projects for the un-initiated. When knitters were finally welcomed into St. Luke's, and sat down in front of their screens, lifted their needles and began to knit (as more than 2000 volunteers did during 2005), they began to take possession of both the space, and the project, as well as their engagement with technology. What was such a challenge to explain before its actuality, became more straightforward once it was materially present before us. Once we could see it (and once it was seen to be beautiful) its participants came to understand its nature as abstract cartography, as a simple and gorgeous abundance of knitting, somehow connected to the city and its weather by themselves.

### **Caroline & Julia:**

Caroline rings the bell bang on 10am, sometimes earlier. She and her colleagues from the Cope Foundation are regular knitters. Every Monday they arrive with their hats and coats and bags and their big grins. In they come and like good children hang up their coats before they come into the kitchen to have their tea and scone. Julia comes on other days, a tiny gentle earnest nun, who knits for a morning once a week. Schoolteachers and children, mums and aunts and grandmothers. Of course there are some men, dads sometimes and brothers, but they are generally visitors from overseas, or some other kind of novelty. Every interviewer who interviewed us during several years of focus on *The Knitting Map* asked if men also knitted, and of course they did. But this is hardly the point. The point of all these questions was to rattle the intransigence around identity that culture holds so dear, that's why I so often talk of femininity rather than women. But let's not beat around the theoretical bush here: this was women's work. But that doesn't mean that it couldn't have been otherwise. Indeed this work is absolutely based on re-working meaning around femininity. Caroline and Julia knew this in their own ways.

The interaction of these knitters with technology was a deceptively subtle one. Whilst the pattern and the wool colour depicted on the knitters' screens had the guise of an ordinary knitting pattern, this familiar code concealed its origin in a digital system which captured the geographies of weather and city busyness. The collective gesture of communal knitting was one which gave cartographic authority to middle-aged women, and their language of care (which is what knitting mostly is). *The Knitting Map* enabled the dynamics of community – both synchronous (a community now together) and diachronous (over a calendar year – communities need time to develop and sustain themselves) to engage directly with technology through a process of knitting. Knitting in this project was clearly both a literal as well as a metaphorical labour. Most of the women regularly involved with *The Knitting Map* were unfamiliar with technology in any form, and this was mostly generational. *The Knitting Map* installation space was made from elements familiar and essential to the generation of community. Knitters could choose to sit beside their friends, or meet new participants. It was easy to chat whilst knitting (see images 2 and 3). There were regular breaks for scones and tea and a sandwich at lunch time. The actual physical use of technology whilst knitting was relatively minimal – a screen, on which was displayed the generated stitch / colour, and an easy alternative for beginners, or those with learning difficulties. But the technology that generated these stitches was inherent in these knitting patterns, and the fusion of the ordinary and the extraordinary was part of its power. These women *were* knitting the weather through their use of yarn colour; the normality of choosing one's own wool colour was given up in favour of an openness to what the wide and close skies of a year of weather might bring. Such a communal gesture brought frosts and floods, and heat into the domestic and ordinary act of knitting. It opened its close, domestic and feminine associations to the literal and metaphorical sky. It allowed the mathematical complexity of knitting difficult stitches to be brought

into proximity to a frantic city, clogged with traffic and queues, and crowded streets. In keeping track of shifting numerical combinations to produce (for example), an open honeycomb cable<sup>iv</sup> these women re-worked the *actual* digital information about busyness being sent up to them from the city<sup>v</sup>, and they did so, by integrating this data with their hands (their digits) in processes of communal hand knitting. *The Knitting Map* allowed the prevailing cultural peripherality of middle-aged women to make a collectively original and beautiful thing and in doing so re-mapped their own apparently tangential geography.

### **Deborah: Poetry in Translation**

In order to communicate *The Knitting Map*'s poetic and conceptual premises, *half/angel* first addressed a dilemma of language: how to effectively translate digital displays that correspond to stitches and colours to participants unfamiliar with the aesthetics, technology, and vocabulary of contemporary art. Indeed, producing a technologically mediated conceptual portrait of Cork required trust in and comfort with the technology integral to the project. Ultimately, to create an environment conducive to knitting, the technology that collected, collated, and transmitted data itself needed an interpretive apparatus to be comprehensible. Toward this end, *half/angel* translated their technology into familiar and purposeful forms and materials, thus mitigating feelings of intimidation that technology so often engenders. In effect, *half/angel* gently introduced digital technology to *The Knitting Map*'s largely Irish, middle-aged, female participants by enfolding it in wood and wool. Poval and Erika Bertolini Cullen outfitted the crypt of St. Luke's Church, in which *The Knitting Map* was headquartered, to facilitate the translation of urban milieu to stitch and colour. The crypt was faced in wood, emphasising architectural contours and encasing the monitors in digital "pulpits," each one its own quiet yet industrious mode of address (see Image 4). Seated at these digital knitting stations, below a bank of Romanesque arched windows, the twenty knitters resembled a choir, voices materialised in rivulets of knitted wool, spilling over a wooden embankment and merging at a confluence of expanding colour, pattern, and texture.

*half/angel* conceived *The Knitting Map* as a secular project that wedded technology with handwork, blurring the boundaries between masculine and feminine, labour and leisure, art and craft. Yet, for so many of the participants, themselves practicing Catholics, the crypt of St. Luke's implied the communal experience of worship. Cullen, a devout Catholic, labelled the design of the knitting stations a "coptic circle" for its visual affinities to a Coptic cross (McCarthy 2005: 36 – 8). Regardless of the participants' religious convictions, these contours transformed the wired and cavernous space into a place of intimacy, in which knitting became a communal experience. By effectively contextualising *The Knitting Map*'s digital technology, the very processes and language of "knitting Cork" becomes dialogic across generations. Here, digital media is rendered meaningful to participants previously unfamiliar with its codes. Likewise, knitting, a traditional art

form, is passed to young participants, more conversant with technology than textile. Here, *half/angel* deploys digital media in the service of art to perform poetry in translation.

### **Jools: Voicing Interpretation**

Our knitters then became translators. We encouraged our regulars to take part in the process of welcoming visitors - getting them knitting if they so wished, and teaching them if they needed it. This process was one in which women who often had absolutely no experience of digital processes, were explaining a conceptual digital art work to visitors of all kinds, from families to international arts practitioners. Sometimes I eavesdropped these explanations from the back room. These were not the perfect presentations of the gallerist or the city guide, but were an owned articulation of what was happening. This was much easier to do once the map itself had begun to appear. Once I heard it explained that the knitted cables were the traffic, and the double moss<sup>vi</sup> the people; a scenario in which our software (which only sees movement) was able to distinguish between the kinds of motion generated by pedestrians and by traffic. All translations have their stumbles - ours had similarly been a process of partial translation. Each of us told different stories about how the map was made, how it worked, and what it might become. In these spoken narratives, such acts of translation came to be lodged corporeally in the bodies of these women who had knitted and chatted their way into voicing interpretation.

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### **Duet:**

This essay is a duet between the Director of *half/angel* Jools Gilson-Ellis, and the art historian Deborah Barkun. We are orienteering, using *The Knitting Map* as compass as well as map. We are hunting for curious stitches in the millions before us; we fly skywards and gasp at the topography; we sweep sideways and see the map from a different perspective – there it is amongst so many other collaborative art works, and there it is again, this time amongst the traditions of Textile Art. Finally we sit down exhausted, and wonder at how ordinary geographies are made extraordinary by such an object; how the exhibition in the Ganser Gallery reverberates between rural textile communities in two countries. And finally we stay very quiet, and watch as one community takes the pulse of another as silent figures take time to witness the pleated complexity of billions of stitches; a complexity brought together to make a single thing.

### **Deborah: The Map at Millersville**

In March 2007 Millersville University welcomed *half/angel's* *The Knitting Map* to the Ganser Gallery. As a region steeped in a rich history of fibre arts, Central Pennsylvania was an especially appropriate site for *The Knitting Map's* US debut. Like the quilt, a textile inseparable from Central Pennsylvania history, *The Knitting Map* evokes a cultural moment in Cork, Ireland

that led to the city's selection, in 2005, as the European Capital of Culture. When faculty and staff in the Art Department at Millersville University were introduced to *The Knitting Map*, they felt an immediate affinity for Cork residents' desires to "fabricate" their experience of place.

The understanding of place, affected by colour, climate, and community, is intimately connected to one's relationship to and traversal of space. Indeed, one's visual and social landscape transforms identity. Likewise, people shape place, suffusing streets and architecture with vitality and character. By translating traffic flow and weather patterns into representative stitches and colours, more than two thousand volunteer knitters generated a conceptual topography as diverse as Cork's nearly half-million residents and their respective relationships to the urban fabric.

Knitting can be solitary or communal, mindless or contemplative, visual or tactile. For the knitter, the intricate choreography of needles and yarn can yield both text and textile. Whether a stitch takes the form of a simple garter or a complex cable, its calligraphic lines can be read in tones amplified or hushed. Thus, the language of knitting is a shared language. Like quilting bees, "knit-ins" and knitting guilds provide instruction, community, and conversation. In 2005, in Cork, *half/angel* coordinated a rotating group of knitters who congregated around their knitting stations in the crypt of St. Luke's Church, Summerhill, chronicling city traffic and weather according to computer-generated patterns. In practice, this communal activity encouraged mutual exchange and united disparate individuals in a collaborative fabric and collective yarn. *The Knitting Map's* vast scale attests to this multiplicity of voices. The result is a panorama that uniquely captures a city and its community.

When four large wooden chests containing *The Knitting Map* arrived in the Art Department, the scent of cedar, a fragrance that evokes anticipation and nostalgia, filled the air. Like scent, textiles and needlework can trigger associations and memories. Memory quilts, friendship quilts, and mourning quilts, such as the NAMES Project AIDS Quilt, parts of which were exhibited at Millersville University in November 2006, typically incorporate meaningful scraps of cloth, while handwork may aid the quilter in the ritualized work of memory, chronology, or grief. Cultural historian and critic Marita Sturken has noted the significance of quilting for women as a means of fabricating cultural memories from which they were formally excluded (Sturken1997: 193). Similarly, art historian Rozsika Parker has written about the traditional role of needlework for women in performing the work of mourning. According to Parker, the "time taken to complete a memorial sampler or picture allowed a period of mourning, and possible acceptance of separation and loss" (Parker 1984: 38). Like quilting and embroidery, the art of knitting may function as a treasured heirloom handed down to friends and family. By blanketing their environments, works like *The Knitting Map* and the AIDS Quilt evince the power of collaboration to produce objects of security, solace, and comfort. Intertwined in *The Knitting*



*Map's* complex fibres are the received traditions of past generations. Like textile generally, knitting has the ability to transmit to future generations the experience of a unique time and place. The influence of this may be seen in the adaptation of knitting and crocheting as a contemporary art medium. Rosemarie Trockel's "knitted paintings," Oliver Herring's sculpture, knitted from wool, tape, and mylar, and the mixed media installations of Xenobia Bailey exemplify the move by contemporary artists to embrace and re-articulate textile art forms. Recent exhibitions such as "Radical Lace and Subversive Knitting" at the Museum of Arts & Design in New York attest to the contemporary use of fibre and textile arts to challenge conventional understandings of issues such as globalization, gender, ethnicity, and environmentalism. As contemporary artists devise ways to translate their memories of traditional needlework into an innovative visual language, they add to the ongoing project of memory. *The Knitting Map* stands as a crucial, collaborative example of this.

When exhibited, *The Knitting Map's* orientation varies according to the site in which it is installed. As *The Knitting Map* draped and flowed over and through the space of Millersville University's Ganser Gallery it achieved a unique confluence of two places normally separated by distance and national boundaries.

Transporting a conceptual and dialogic work such as this from one cultural, national, and geographic context to another is not without its own translational challenges. To be sure, the dialectical intricacies of our shared language must themselves be knit together to be readable. Similarly, prior to *The Knitting Map's* formal and physical inception, *half/angel* had to make the concept of the nascent project decipherable to Cork's residents. They did so through a series of introductory knitting performances, which in their own way, engaged in a process of mapping the city with knitting through a rigorous engagement with public space. These early performances read the activity of knitting with and against notions of alchemy and feminised labour, thereby demonstrating how *The Knitting Map* endeavours to transform the private and disenfranchised into the public and empowered.

### **Jools: The Pleasurable Trespass**

*The Knitting Map* was one of the cornerstone projects of Cork's year as European Capital of Culture during 2005. It was one of the first projects to be commissioned by the Cork 2005 Executive (in mid 2003) and *half/angel* began work in earnest in the autumn of that year. During 2004, the company held monthly performance / knitting events which gave us a public presence even before the 2005 year. These performances took place in different public sites within Cork city. They gave us our trespasses, as I climbed onto tables of sweaters in Blarney Woollen Mills; asked for help to be lifted into one of the high stained glass window alcoves in the Crawford Gallery; as I knitted perched on a rubbish bin in Merchant's Quay shopping centre (see Image 5).

This was work about irreverent trespassing, about insisting city space as a space for ideas. It was also work about invigorating the urban and the public sphere with a discourse of revolutionary femininity. Knitting was both the metaphor and the material for these performances.

Knitting was my attendant wickedry as I persuaded, and cajoled and teased and sang my way through a year of performances. Knitting was my weapon, as well as my clothing. Knitting was a slipping metaphor, just as I slipped sometimes, on stairs and streets, on the back of motorbikes, or into passers by. Knitting also slipped between tenors. I was knitting meaning. For some of those who witnessed these events, I was a strange knitting comedian, who could persuade the unpersuadable to join me in my games of performance. To others, I was an alchemist of an altogether different kind. To those, I knitted beyond but also *because* of the immediate. In my very present tenseness, time slipped sideways. In such moments of connection, knitting became refracted and meaning multiplied. I was a harridan exploring how textiles might be other than passive, gentle, and domestic. I wielded my knitting needles like swords, and funny as this might have been, it belied the serious labour of re-working metaphors of femininity.<sup>vii</sup> If we play assuredly and irreverently with such metaphors, femininity might be twinklingly unleashed. Such an unleashing is linguistic, visual, corporeal and temporal: It is a pleasurable trespass.

All of this was a prelude then, to our year of knitting. This was our performative invitation to partake of a communal knitted sorcery. Such a call to knitting was of course, a recruitment drive as well as a way to have a presence in the public imagination, but it was also, importantly, an incitement to wonder about the meanings of knitting, community and femininity. As I played with meaning in a year of performances, so I hoped to model imaginative pathways in my audiences. I wanted to stretch and turn this association of femininity and knitting. I wanted to do this, not because of knitting, but because of the ways in which the processes of care, gift-giving, mathematical complexity, and chat are marked by the ways in which women have knitted in their homes as an act of familial and community cohesion. Knitting is a domestic feminine trope whose mechanics and operation I want to celebrate, but also radically re-work. Knitting complex cables requires a mathematical dexterity that astounds me. Its models of patterning are similar to early computer programming.<sup>viii</sup> It develops extraordinary complexity from the combination of two stitches, just as digital information is only ever a combination of zeroes and ones. Such a skill, unfortunately, also remains redolent of feminine cultural disenfranchisement. It is hard work for our cultural, social and political imaginations to give value to the private, domestic, maternal and feminine. It is this resistance to value that is the territory of this work.

*The Knitting Map* is a strange and compelling cartography. It maps a city by using the labour of the disenfranchised. It brought the digitally innocent into daily contact with a speculative technology, that they were able to call their own. It mapped time by locating private activity as

both participatory event, and installed performance. *The Knitting Map* is a cartography of care; its folds and turns hold all kinds of ghosts. Here they are shifting and turning before you. And if you chase them, they will play at obedience, and then laugh and run giggling into fields of knitting.

i Directed by Richard Povall as well as Jools Gilson-Ellis. All software and digital environments were designed by Richard Povall.

ii Richard looked at this information over many weeks, and averaged the data, and then programmed the system to upload this number to our central processor every 5 minutes. He then integrated the information from the four city centre locations by collating and averaging their numbers again, to give a single number between 1 and 25 to represent just how busy the city was every 5 minutes. He then did more averaging, and the city's level of motion generated a single number every day. We made a graduated list of stitches from 1 – 25 that moved from simple to complex, and we mapped this onto the levels of busyness generated by the city.

iii His idea was to give a sense of how a particular day might 'feel' by mapping combinations of information, in a similar way that we apprehend a sense of a day when we step out into it.

iv *Open Honeycomb Cable* (knitting pattern where K = knit, and P = purl):

The pattern begins on the wrong side, so work 1 row knit before starting. Row 1: K2, p8, k2; rep to end. Row 2: P2, C4B (slip next 2 sts onto cable needle and hold at back of work, k2, k2 from cable needle) C4F (slip next 2 sts onto cable needle and hold at front of work, k2, k2 from cable needle), p2; rep to end. Row 3: As 1<sup>st</sup>. Row 4: P2, k8, p2; rep to end. Row 5: As 1<sup>st</sup>. Row 6: As 4<sup>th</sup>. Row 7: As 1<sup>st</sup>. Row 8: As 4<sup>th</sup>. These 8 rows form pattern. Repeat." (Matthews 1984: 63)

v St. Luke's church is on a hill overlooking Cork City.

vi Double moss was one of the knitting stitches used regularly in the map – it was placed towards the quiet end on the levels of city busyness.

vii See for example, Freddie Robins' 2002 work 'Craft Kills' illustrated in the catalogue for *Cosy* (Robins 2002). And see some of the textile texts written for the 1997 CD-ROM *mouthplace*, for example: "In war, the women would embroider the faces of their captors slowly closed. Though they selected colours that befit the time of year, and spent time on their designs, their silk would clot into a sewn frieze of black red. These bodies were sent back across the border, strapped to floating biers." (Gilson-Ellis & Povall 1997)

viii See Sadie Plant's *Zeroes and Ones*, for a discussion of the relationship between femininity, technology and textiles (Plant 1997)

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