

INSIDE MOVEMENT KNOWLEDGE

Dance research at the intersection of arts education, science and professional practice



An innovation programme for
RAAK-Publiek
2 June 2008

Representative:
Amsterdam School of the Arts

Foreword

The *Inside Movement Knowledge* project is concerned with documenting and transmitting dance. In the past, various dancers, choreographers and dance researchers have made attempts to create notation systems. Most are shorthand representation of positions, movements and position changes. However, none of these attempts have ever resulted in a universal notation language comparable to musical notes and symbols.

There is enormous demand in the dance world for new instruments for the documentation of dance that use a form of notation that records not only the figures in a given dance performance (as a final product) but also – especially – the artistic processes by which the choreography comes into being, making it possible to transmit them. New media offer new opportunities to create an effective and universal system. In recent decades, a good number of dancers and choreographers have taken up this challenge and experimented with a wide range of technologies. The Amsterdam School of the Arts (AHK) is an important hub in this process thanks to the wealth of expertise it has accumulated with respect to combining dance creation and the application of new media.¹ The Research Group and Development/AHK (LKAO) provides artists with space for artistic research, accommodating their need for a deeper understanding of their own practice and the increased accessibility for others into that practice.² Within the framework of this research group, several dance artists working internationally have joined together to focus on the issue of the documentation and transmission of dance. Their experiments and research have demonstrated that the complex nature of dance cannot be adequately represented using one single technology. The development of a prototype for an interactive installation that will be a source of complex digital information has provided preliminary understandings of the ways in which the combined actions of diverse media can be applied within creative (learning) processes.

This RAAK (Regional Attention and Action for Knowledge) project sees the start of a new phase in the research process, with equal input from arts education institutions, the dance world, the heritage sector and the scientific world.

In my opinion this project satisfies all content-related criteria required by RAAK Publiek: it is demand-led, it will lead to the strengthening of the sustainable professional network and its goal is innovation and the documentation and transmission of information and knowledge.

Honesty compels me to mention here that the project is partly being carried out by specialists who have built up a regular and long-term relationship with the school as guest lecturers and/or researchers, but who are not formally connected with, or employed by, the AHK – as befits their status as independent artists.³ For further information I refer you to the resumes and the explanatory notes on the budget for the project. Of course I am prepared

¹ Particularly in the Dance/choreographer bachelor course, offered by the School for New Dance Development (SNDD) and the Amsterdam Master of Choreography (formerly Dance Unlimited).

² It is expected that this RAAK project will produce a large volume of material about the nature and significance of artistic research itself. We believe this will add significantly to the value of the project. The AHK is focusing much of its energies on artistic research – through its choice of areas covered by its research groups, the structuring of Master's level courses and for its Artist in Residence programme.

³ Scott deLahunta, Bertha Bermúdez, Chris Ziegler, Eliane Mirkabekiantz and Frédéric Bevilacqua.

to provide further information and, where necessary, amendments, on the assumption that this point will not stand in the way of the assessment of the content of this project.

Yours faithfully,

O.G. Brouwer
The Board of Governors

Where can dance come to rest after it has been done? Where does dance move to? And how is it revived in our memory?

(André Lepecki, Company in the School, 2006)

0. Summary

Dance is of crucial importance to society and provides a qualitative contribution to education, welfare and culture that cannot be viewed separately from its artistic energy. As an art form in the 21st century, dance requires constant innovation and effective systems for documentation and conservation to unlock knowledge that is specific to the form and to reach out to a growing audience, now and in the future. At present, however, there exists no universal notation system that makes choreography and dance accessible for study, analysis and transmission. Consequently, contemporary dance professionals in the worlds of practice, education, heritage and science, are encountering a number of issues that must be dealt with in order to facilitate the further development of this discipline and its artistic and social potential. They are:

- *the reconstruction of past works for creation of repertoire;*
- *the transmission of artistic methods and working practices to a younger generation;*
- *the connection of choreographic knowledge to other relevant artistic, technological and scientific developments;*
- *the broadening of audience accessibility;*
- *the preservation and stewardship of choreography and dance as intellectual heritage.*

This need within the sector has led to experimentation. Several leading national and international professionals have set up high-profile research projects that take advantage of advanced new digital media to unlock and disseminate dance practices. Under the auspices of LKAO, the Inside Movement Knowledge project will bring together the best practices in this field, and will organise collaborations with scientists and heritage experts who use comparable instruments for unstable media artworks. This will enable the innovation programme to make optimal use of exchanges of and connections of existing methods and tools, including those from other contexts.

The consortium is made up of the representative, LKAO and the Dance departments at the AHK, a group of Dutch-based professional dancers and choreographers, a university and a national institute for media arts. Other parties involved include an international group of dancers and dance experts who have formed a semi-formal network, along with several international organisations concerned with cultural heritage. Moreover, there is close contact with a leading annual dance festival, professional journals and publicists. The makeup of this consortium will ensure that the development and use of, and reflection on, the envisaged systems under development will not only contribute to the preservation of movements within dance, but that the Inside Movement Knowledge project will effect interdisciplinary research alliances at the intersection of arts education, science and professional practice.

The development of innovation tools for documenting, unlocking and transmitting contemporary dance practices is a key aim of the Inside Movement Knowledge project. It will use the results of preliminary experimentation and its resulting prototype to develop an interactive, spatial installation in which a professional training programme by a renowned dance company will be simulated. It will provide a range of forms of feedback on the quality of individual's movements when performing the dance programme live, in the installation itself.

Within the framework of the programme, this prototype will be further developed, applied in various contexts and studied as an innovation tool for the sector. The ultimate aim is to deploy it in dance environments outside the genre in which it was developed.

In the preceding experimental phase it became apparent that this prototype product exerted a great appeal not only to those directly involved (dancers, choreographers, their audiences and those organising dance events/festivals), but also on those parties with a more observational role (institutes for scientific and artistic research, heritage organisations and critics).

Over the course of the project, this broad interest will provide the basis for collaboration with a wide range of parties in completing multiple cycles of concept development > experimental drafting > practical assessment > evaluation > adjustment.

This will also lead to the process having the dissemination and the presentations and publications planned for various stages of development (and for various target groups) logically embedded throughout its course. Target groups will range from festival audiences to scientific conferences attendees.

The programme will run from September 2008 to August 2010. The total cost of the programme will be €450,827, of which €200,827 will be invested by members of the consortium; €250,000 will be requested from RAAK-Publiek. Participants' contributions thus amount to 44% of the total budget.

1. Introduction

- *Origins of the need for documentation of dance*
- *Current issues and demands in the sector*
- *Relationship with developments in other areas of the arts and cultural heritage*
- *Scientific incentives for participating in the documentation of dance*

Choreography and dance, art forms for the 21st century

Dance is a non-verbal form of expression that can bridge the gap between diverse cultures and communities in our society and improve the quality of life for citizens of all ages and backgrounds. In recent times we have come to understand more about some of these positive effects of dance. Recent scientific studies demonstrate that watching dance brings us in contact with our emotions in ways that images and words alone cannot do. Active

participation in dance promotes experience of not only its creative aspects but also its health-giving, physical aspects. Dance has a positive influence on children's school performances: it helps them improve and develop their faculties for communication, analysis and imagination. It is also a way for children and adults alike to become involved in active movement without resorting to competitive sport. This suggests that the ultimate scope of the project could be very wide indeed.

This qualitative contribution to education, welfare and culture should not be viewed separately from the artistic energy of choreography and dance as art forms.

Performances by professional dance companies in particular have the ability to inspire people to participate in dance. Recent statistics from the United Kingdom demonstrate that dance is the fastest growing art form and more than 13% of the population regularly attends dance performances.⁴ And in response to interest in dance from society at large, the German Federal Cultural Agency recently made €12.5 million available to improve dance's status, national infrastructure and artistic quality.⁵

Dance started to develop its specific potential at the beginning of the 19th century. This it did by dispensing with its own classical tradition and creating the genre we now know as modern dance. In the process, choreography and dance became professionalised autonomous artistic disciplines, fundamentally revitalising the theory and practice of training, creation and education. In the 20th century, however, we witnessed the development of increasingly reciprocal relationships between the classical and modern schools in the arts – including dance. It is not uncommon in modern practice for contemporary choreographers to work in traditional ballet as well as in their own field, for example, or for classically trained dancers to become affiliated with experimental dance companies.

Choreographic knowledge and the preconditions for transmission and development

Despite dance's apparent potential, leading national and international choreographers (whose works are prime examples of the dynamic interchange between classical and modern movements) warn that their art is threatened with stagnation if no new system is developed to make the specific knowledge of choreography and dance accessible for study, analysis and transmission.⁶

Many art forms are documented and preserved in accordance with the nature of the medium itself, as is the case in sculpture, the fine arts and filmmaking. And there are universally comprehensible scores and scripts for music and theatre. While dance is valued for the immediacy of its experience and its fleeting existence, the lack of proper documentation and notation systems causes several critical problems for dance professionals. How can past works be reconstructed such that we can enable the 'creation of repertoire'? How can artistic methods and operating procedures best be transmitted to younger generations? How can we best connect choreographic knowledge

⁴ See Dance Manifesto, published by DanceUK (2007) www.danceuk.org

⁵ See TanzPlan Deutschland, www.tanzplan-deutschland.de

⁶ Including Emio Greco | PC, William Forsythe, Wayne McGregor and Rui Horta. See 'Regional embedding, international associates network'.

and relevant developments in the arts, technology and the sciences? What is the best way of ensuring that contemporary dance becomes more accessible to a broader audience? And what are the best ways of preserving and stewarding the intellectual heritage of choreography and dance?⁷

Professional choreographers, dancers, heritage experts and scientists in the field urgently need innovative documentation and communication strategies to ensure that choreography and dance can develop their qualities into the future.

In direct response to this perceived void, several leading dance companies have taken the initiative and are examining the possibility of applying interactive digital technologies to this history. One of these is the renowned Amsterdam-based dance company Emio Greco | PC.

Ever since its founding in 1995, EG | PC has been intent on creating cutting-edge dance, while maintaining a profile as a platform for research into, and reflection on, contemporary dance.⁸ The most recent research project to be carried out by EG | PC under the auspices of the LKAO has been in development since 2005. This case study forms the basis of Inside Movement Knowledge, a specialised notation system in the form of an interactive installation simulates the group's key training methods. This installation comprises a three-dimensional space in which a dancer moves. Using real-time projections, infrared beams and sensors the dancer's movement is translated into computer data that, in turn, is used to generate an animated version of the dance movements, which are displayed next to images of the dance (The prototype use a dance by a EG | PC) as it was originally performed. This enables the dancer to compare his or her movements with those originally intended – not only in the sense of congruence of form, pose, movement, direction and speed, but also with regard to the more subjective experiential aspects of the dance, such as intention, emotion, energy and flow.

In addition to Emio Greco | PC, a group of other interested dancers, choreographers and dance theorists have formed an international associates network with the aim of participating in Inside Movement Knowledge, and likewise contributing significant research projects that will unlock and disseminate advanced dance practices using digital technologies.⁹

Over the coming two years, this innovative tool will be further developed, applied and studied.¹⁰

⁷ It is for this reason that the most recent edition of Dutch Dance Days (directed by Leontien Wiering, who is also head of the dance department of the AHK) included a special programme entitled COVER which was devoted to the problems surrounding reconstruction and the forming of repertoire.

⁸ This commitment found its expression in the Centre for International Choreographic Arts Centre (ICK) which was set up by the EG | PC company and in which the LKAO and the Theatre School are involved as partners. The ICK was received with great enthusiasm by the City of Amsterdam and the Culture Council.

⁹ See 'Regional embedding, international associates network'. Examples from dance practice range from digital dance archives to online scores and interactive training simulations.

¹⁰ For documentation, see the enclosed book by the AHK and EG | PC, *Capturing Intention* (2007). The prototype of the spatial interactive installation was on show at the 2007 Dutch Dance Days. It was also displayed at the Dance Education Biennale in Berlin (2007) as an example of 'new learning tools and multimedia projects for dance training.'

Dance and digital media, shared solutions for the preservation and stewardship of dance and digital media.

Heritage organisations, sector institutes and arts education establishments are experiencing difficulties in recording for posterity today's ever-changing dance practices. Existing forms of dance notation (such as *Laban* and *Benesh*) lack the universality of music notation, and even though video is the most popular documentation medium, it does not capture the full complexity of the movement principles involved. The use of the latest digital technologies such as 3D motion-capture promises progress in the recording of dance and movement. Unfortunately, this technology is prohibitively expensive at present. This lack of accessibility to the past remains an obstacle to the schooling of dancers and to the development of the discipline. Custodians, curators and restorers of contemporary visual arts encounter similar issues when dealing with the preservation and stewardship of installations, performance art, new media or electronic artworks. Their transitory and unstable nature, on the one hand, and their context of a multimedia/digital image culture, on the other, combine to create a wide variety of problems that need to be solved, and at the same time point to the need for permanent renewal within professional practice.¹¹

Since its founding in 1978, the Netherlands Institute for Media Arts (NIMK) has built up a long record of service promoting the wide-ranging development, application and distribution of new technologies in the visual arts. It was recently an important partner in Inside Installations, a European research project examining the development of new tools and methods for the preservation and stewardship of processual performance and installation art.¹² The NIMK is participating in Inside Movement Knowledge because this project offers it the opportunity to expand and apply the knowledge it has gained in visual arts within an international dance context. To this end, an NIMK research team and relevant professional network partners will form part of the innovation programme. In collaboration with EG | PC and researchers attached to the LKAO, it will focus primarily on the further development of an existing study into the development of an exemplary multimedia-based model for the documentation of hitherto intangible artistic processes.

Dance, experienced-based knowledge in education and science

Since the 1980s, the humanities have been occupied with the subject of the human body, approaching it from a variety of angles. This study of the body's meanings and histories has contributed to improved understanding of the function of the body in social and cultural developments. This has played a part in the emergence of several new areas of academic study at university level, including performance studies and postcolonial studies, or gender studies. Methodologically speaking, this involves interdisciplinary approaches requiring contributions from both movement scientists and dance scientists, who thereby expand their field with new knowledge. However, the actual physical sensation of movement has not impacted on these changes within the academic world. Only very recently have the humanities shown a readiness to include experienced-based knowledge about the human body in

¹¹ See Variable Media Project, www.variablemedia.net and Capturing Unstable Media (V2), capturing.projects.v2.nl/

¹² See Inside Installations project, www.inside-installations.org and enclosed publication.

their studies and attempted to integrate in their own faculties those achievements and methods originating in the arts. The relatively young science of dance has a particular need for a new relationship between theory and practice, and to this end it is developing strong relationships with professional artists and with arts education. Through the innovative documentation and transmission systems being developed by dance companies, Inside Movement Knowledge dovetails perfectly with the ambitions within the field and may be able to provide the decisive impulse required. On the other hand, there is a need within dance practice education for a more solid theoretical foundation. For these reasons, both the new dance science MA at the University of Utrecht and the Dance department of the Amsterdam Theatre School/AHK will participate. They will form a research group, consisting of students and teachers, focusing specifically on the assessment and evaluation of the integration of theory and practice within the innovation programme. Their shared frame of reference will be the development of, use of and reflection on the Interactive Dance Workshop Installation. Their involvement in the project will additionally provide an opportunity for the desired bringing together of all analysis-based knowledge and experience-based knowledge. It will also be a unique platform for new interdisciplinary research alliances at the intersection of the arts education, science and professional practice.

2. Aims

- *Improvement of documentation, transmission and accessibility of dance for professionals and audiences*
- *Translation of knowledge imaginative processes and knowledge into manageable tools*
- *Exchange within the professional discipline, the formation of practical theory and the application of new media*

The participating organisations have identified six key components in the process of maximising the artistic and social potential of choreography and dance and making it accessible to a broader audience:

1. Development, application and distribution of innovative forms of documentation and transmission that improve the quality of artistic processes and provide today's dance, education and heritage professionals with the increased knowledge they require about contemporary dance practices.
2. The devising of an integrated model aimed at preserving unstable media and opening it up to examination.
3. The integration into education and science of the specific embodied knowledge held by choreography and dance, and the encouragement of experience-based knowledge production.
4. Professionalisation of practice-based research about, for the benefit of and, first and foremost, *in* dance.
5. Advancement of interdisciplinary knowledge exchange between professionals in the fields of dance, education, cultural heritage and science.
6. Contribution to innovation of the 21st-century art form and satisfaction of the societal need for choreography and dance in the contexts of education, welfare and culture.

Within the framework of Inside Movement Knowledge, these key components are translated into the following practical objectives

1. Further product development by an interdisciplinary artistic research team of the Interactive Dance Workshop Installation, which will function as a prototype for an innovative system of documentation and transmission. This spatial installation will allow individual users to physically experience the professional training method employed by EG | PC in *Double Skin/Double Mind*, and will provide multiple sources of feedback on the quality of their movements. The initial small-scale experimental version will be analysed, assessed, adapted and extended.

2. The making available of the installation as a case study for research groups from the fields of dance education and dance science, who will participate in the iterative design process. In this context, arts students and teachers will function as expert respondents from the field and the research group from the University of Utrecht will use the installation as the basis for deepening the theoretical understanding of matters relating to description and notation of dance in a broader cultural environment.

3. The experimental application of the professionalised Interactive Dance Workshop Installation in other contexts, such as scientific research, amateur art and public awareness. The prototype installation has already been presented to experts from the field of cognitive science, and they are performing research into the body awareness of anorexia patients. It also received a great deal of interest from the general (untrained) public at several festivals.

4. The development of a multimedia-based model for the documentation of choreographic processes, incorporating the knowledge of heritage specialists in the field of visual media art. Explorative examination of the categorisation and classification of a real-life example from the professional dance world will be followed up by constructive design.

5. The organisation of four practical laboratories (Labs) in which research teams focused on theory and practice will be brought together on location for several days to enable hands-on work on the innovation projects and to continue development in concert. One day of each lab period will be reserved for exchange and integration with respect to the diverse processes concerned.

6. The organisation of two conferences focusing on interim reporting and reflection on the progress of the participating parties' research programmes. These conferences will include internal discussion, intensive exchange in an international context (participation of members of the Associates Research Network) and communication with national professionals from the field.

7. The conformation with international best practices in the relevant professional areas through regular feedback from an extensive international associates network. The primary involvement of the participating choreographers and heritage experts (and their pioneering research practices) will be in the above-mentioned conferences.

8. The documentation of all six events to facilitate the dissemination and communication of the research project in the professional domain. Inside Movement Knowledge will maintain a project website, distribute finalised documentation and publish a post-project book.

9. The development of new, practice-oriented scientific methods for the theoretical embedding and critical evaluation of the results produced by Inside Movement Knowledge research. This may be either a component of the project itself or the result of publications in professional journals and contributions to conferences.

10. The wide distribution of the results of the research, to ensure that Inside Movement Knowledge has a measurable effect on the development of the professional practice of choreographers, teachers, curators and dance scientists.

3. Regional embedding

- *Non-location-bound universal network formation*
- *Concentration of energies on networks and organisations with a common focus on research into the accessibility of dance as cultural heritage, with particular attention for the documentation and transmission of dance*

The network comprises five collaborative partners representing the four professional sectors involved in the innovation programme. These are arts education, dance practice, dance science and cultural heritage. In addition to this consortium there is a national platform for dissemination. Also, internationally active dance professionals joined together to affirm the relevance of the central issue at an international level. This international network of independent dance artists and choreographers has ensured that the project has taken root in internationally, with both an international dissemination platform and interchange with seven related research projects.

Consortium partners

AHK/Research Group Art Practice and Development

Through its Research Group Art Practice and Development (LKAO), the AHK has acquired an exceptionally high profile in the area of (interdisciplinary) research in the arts that binds together productively education, professional practice and new developments in the arts. Under the leadership of Marijke Hoogenboom, this interfaculty research group initiates, produces and coproduces with partners in the field on a broadly diverse selection of projects. One such project is the Artist In Residence (AIR) programme, which, among other things, offered the leading Amsterdam-based dance company EG | PC the opportunity to work on the pilot phase of the Inside Movement Knowledge research project. In the intervening period, since 2005, the AHK has gradually built up a broad-based research group led by the LKAO, while also collaborating with the various dance departments at the Amsterdam Theatre School.

Inside Movement Knowledge is rooted in the LKAO's function as a knowledge bridge between arts education and professional practice. In the Netherlands, there is no postgraduate-level education for research and development in the arts; the highest attainable level is the vocational Master's degree. The LKAO is therefore the perfect organisation within the school to take on the responsibility for dealing with professionals' questions on matters of current developments.

AHK/Theatre School, Dance

Together, the six different courses at the AHK fully represent professional dance in all its diversity. They focus on both current developments and traditional forms. There are two courses for future choreographers: the School for New Dance Development (SNDO, bachelor) and the Amsterdam Master of Choreography.¹³ Central to the SNDO's approach is the critically vindicated invention and composition of authentic movement material. The Amsterdam Master of Choreography aims to contribute to contemporary dance research and dance creation in the Netherlands and beyond. Both courses of study attract students seeking to gauge their developing practice, broaden their creative processes and establish themselves independently in the field.

Under the direction of Leontien Wiering (member of the board of the Theatre School and head of Dance), the dance department will form a small and tightly focused supra-departmental research group, which will work together closely with researchers attached to the LKAO in testing and evaluating the Interactive Dance Workshop Installation. In consultation with the teachers, this research project will be embedded in a two-year programme that will develop specific learning models and educational models around the case study. This will involve becoming acquainted with the company and dealing systematically with issues relating to principles of training, body perception, dance notation and the use of multimedia in education. Inside Movement Knowledge builds on the involvement of EG | PC in dance education at the AHK since 2005. Two of the core aims are to continue intensive contacts with professional practice and to renew the curriculum.

University of Utrecht/ Media and cultural studies

The Department of Media and Cultural Studies incorporates, among others, the Chair for Theatre, Film and Television Studies, which deals with many aspects of theatre and audiovisual media. At the University of Utrecht, theatre, dance, film, television and new media are studied as individual processes of communication between makers and observers/users. Furthermore, students do not only develop methods, techniques and understanding within their own sphere of interest: they also borrow from other areas of study, including history, philosophy, psychology and sociology. Under the leadership of Professor Maaïke Bleeker, and within the existing research Master's programme, the Chair set up the Netherlands first Dance Studies specialism. Its primary themes are the complex relationship between dance and writing, and the study will be linked with other disciplines that

¹³ In addition to these courses, the dance department also includes the National Ballet Academy, the Modern Dance for Theatre course, the Jazz and Musical course and the Dance Teacher Training course

examine the meaning of inscriptions, the body and movement.

The scientific research team will include Professor Bleeker alongside new Master's students and a number of assistant researchers. From November 2008 to 2009 Professor Michael Kobialka (University of Minnesota, Belle van Zuylen Chair at the University of Utrecht 2008-2009) will be the group's guest. Other researchers from the department (musicology, media studies, film studies, gender studies) have been invited to contribute their specific expertise to the investigation. The responsibilities of the Theatre Studies Chair will include formulation of a plan of intent with respect to the carryover effect of the results of the research on education and science, and on the dissemination of the results in these fields. Inside Movement Knowledge is expected to provide a strong impulse to both the improvement of practice-oriented research in the arts and to the desired interdisciplinary application of dance studies.

Emio Greco | PC

Ever since its founding in 1995, Amsterdam-based dance company Emio Greco | PC has dedicated itself to the creation of dance at the cutting edge. The initial inspiration for the group's search for the fundamental characteristics of dance arose from a sense of curiosity about the human body and its inner drives. Collaborative relationships with other disciplines and commitment to reflection on the company's own practice are also becoming increasingly important to the group. For example, the company became well known as a forum for professional colleagues, critics, scientists and dramaturges with their Dance & Discourse salons, which ran for several years. And, as early as 2005, the company developed an educational programme entitled *Academia Mobile*, making a start on research into dance notation, re-creation and transmission. The first phase of the research project concluded with a documentary about the *Double Skin/Double Mind* workshop. The second phase, a collaboration with the LKAO, resulted in the creation of a wide-ranging research team of experts in the areas of dance notation, film, digital movement analysis, interactive media design and cognitive science. This phase also saw the first involvement of the international research institute IRCAM (Institut de Recherche et de Coordination Acoustique/Musique), which will now function as one of the two dissemination platforms. The interim results serve as an instrumental departure point for this innovation programme. They comprise a prototype for the spatial dance workshop installation, the book publication *Capturing Intention* and the first steps towards an interactive DVD-ROM archive.

Inside Movement Knowledge is also meeting with very positive responses at the Centre for International Choreographic Arts Centre (ICK), which the company set up as an international platform along with the LKAO and the Theatre School as partners. This initiative was received with great enthusiasm by the City of Amsterdam and the Culture Council. EG | PC is therefore not only an artistic participant in the innovation programme; it is a fully developed research organisation on a par with other exceptional, world-class dance companies (see 'International associates network').

The Netherlands Media Art Institute

Established in 1978, the Netherlands Media Art Institute, Montevideo/Time Based Arts (NIMK) has a long record of service in the advancement of broad development, application and distribution of new technologies in the visual arts. The NIMK supports media arts in three key areas: presentation, research and conservation. Custodians, curators and restorers in this field encounter similar problems to those encountered in the dance sector in the context of preservation and stewardship of unstable media. From 2004 to 2007, under the leadership of Gaby Wijers, the NIMK was a key partner in Inside Installations, a European project for research into the development of new tools and methods for processual performance and installation art. Inside Movement Knowledge brings with it the opportunity to extend the knowledge they gained into international relationships, and apply it in dance. To this end, an NIMK research team and relevant professional network partners will form part of the innovation programme and will focus, in collaboration with EG | PC dance company and researchers attached to the LKAO, primarily on a second case study: the design of a multimedia application for the documentation of hitherto intangible artistic processes. The new models developed during the innovation programme will also form departure points for a subsequent phase of research that will develop actual products.

Dissemination platforms

Springdance Festival

Springdance, which takes place in Utrecht every April, is a 'vanguard festival', as the Culture Council describes it. As such, it is the most prominent platform in the Netherlands for current national and international developments in contemporary dance and performance art. It actively promotes development of Dutch and foreign dancers, innovation within the discipline itself and a broadening of audiences. At key points during the period of research, and at the invitation of Springdance, Inside Movement Knowledge will connect with the festival through working conferences. This will enable the sharing of research results with professionals in the field and interested members of the general public, in a productive national and international context.

IRCAM

IRCAM (Institut de Recherche et de Coordination Acoustique/Musique) in Paris is renowned internationally as a leading institute for new music, including electronic music. It gathers together specialists from a variety of interrelated disciplines, including music, information science and acoustics. It is only recently that IRCAM broadened its focus to include the aural and visual representation of movement and dance. Its activities include specialist research into the analysis of movement, using 'Gesture Follower' equipment, as it is known. With the help of IRCAM, Inside Movement Knowledge is among those making use of this new application, in the development of the installation. This has led to an affiliation with the Real-Time Musical Interactions Research Team, a unique research community that will contribute to the international impact and communication of the research results.

International associates network

In order to do justice to the international relevance of the initial enquiry instigated by professionals, the innovation programme will be embedded in a high-calibre international setting, a network of expert professionals who lead relevant research projects in the Netherlands and elsewhere. The following projects and individuals have confirmed their active participation in Inside Movement Knowledge, whether responding to the ongoing online publication of project documentation, or by at least attending the annual working conferences (see appendix for declarations of intent). The choreography and dance network will be run by Scott DeLahunta (who, in turn, will bridge gaps between several of these initiatives). The heritage and new media network will be run by Gaby Wijers from the NIMK. For further information, please consult the attached resumes.

Choreography and dance

- Entity Research Project, Wayne McGregor | Random Dance (London) – Rebecca Marshall
- On Line Interactive Score Project, The Forsythe Company and Ohio State University (Frankfurt and Columbus, Ohio) – Norah Zuniga Shaw and Gunther Henn
- Siobhan Davies Digital Dance Archive: Siobhan Davies Dance and Coventry University (London and Coventry) – Sarah Whatley
- Transmedia Knowledge Base for Dance: Rui Horta and University of Lisbon (Lisbon) – Carla Montez Fernandez

Cultural heritage and digital media

- Netherlands Institute for Cultural Heritage (ICN, Amsterdam): Vivian van Saaze
- Tinguely Museum (Basel), Reinhard Bek
- Guggenheim and Variable Media Network (New York City), Caitlin Jones

4. Research and the circulation of knowledge

- *Diversity of participants, products and means of communication*
- *Interchange within this mix of arts to act as a catalyst for project results*

The research methods used by the innovation programme have been drawn from practices that have been tried and tested within their respective fields. They include the use of case studies; iterative design; investigative, constructive and empirical research; interviews; participatory observation; and content analysis.

The primary goal of Inside Movement Knowledge is to carry out two innovation projects, or case studies, aimed at developing new instruments for the documentation, unlocking and transmission of contemporary dance practices.

Our plan for intensive circulation of the knowledge acquired among the various parties and areas of research concerned is based on the six distinct activities described below. Each of these will be supervised and monitored by the steering committee. However, by their very nature, innovation projects (and by extension the circulation of associated knowledge) depend on dynamic interaction between sectors, institutions and disciplines, to arrive at new best practice models suitable for application in the professional domain.

Research

The key aim of Inside Movement Knowledge is to produce an interactive, spatial installation to simulate a complex training programme by EG | PC dance company, using multiple components (including projection screens, video images, sensors and infrared equipment). The installation will acquaint professional and amateur users alike with this advanced training method, providing feedback on the quality of their own performance through a variety of sources, including graphic representation, real-time projections and sound. The movements of the dancer or observer between the black partitions will be translated by sensors into data that will in turn be used to create an animated representation of his or her body. These animated images will then be projected next to the original. The goal of the installation (and thus of the intended development of the installation as an innovation project) is not to create a perfect imitation of the original example, but rather to assess the degree to which the individual user can experience the inner sensation of EG | PC's dance idiom.

There is no comparable tool available in the Dutch dance sector. Almost no experimentation has taken place into the potential of personal experience and transmission of dance practices, or 'life art', independent of professionals – whether to contribute to arts education, cultural heritage, science or public accessibility.

At present, there exists only a prototype of the Interactive Dance Workshop Installation. It was launched in 2007 at Dutch Dance Days and subsequently evaluated with the help of feedback from professional and nonprofessional users at public displays in Berlin (Dance Education Biennale) and Utrecht (Springdance). In order to make the tool available to the sector and have it contribute to further professionalisation, improvements are needed in a number of areas:

- *content*, by increasing the complexity of the artistic information;
- *technology*, by adapting the deployment of advanced new media;
- *experiential quality*, by amplification of individual sensations;
- *education*, by testing the installation in an educational context;
- *professional*, by tying in with innovation-related questions arising from other professions;
- *social*, by examining the potential for application in other contexts;
- *reflective*, by taking the theoretical and scientific understandings gained as the foundation for communications about the use of similar instruments in future cultural developments, with reference to the dilemmas, potentials and meanings encountered.

The second innovation project focuses on the broader issue of preservation and stewardship of intangible heritage, rather than the specifics of user/observer experience of dance. As a cultural expression, dance, which is central to this application, belongs to the intellectual heritage of the Netherlands. The experience, reconstruction and transmission of dance all contribute to mutual understanding between social identities.

The NIMK research team will examine the documentation for an existing choreographic process. Using the latest data-analysis and archival techniques, it will carry out explorative research into the categorisation and classification of relevant information. The second phase will focus on

constructive research leading to the design of an exemplary model for the documentation of artistic processes in dance. This will be done not only with computer visualisation and interface design, but also by tapping the expertise available in the visual arts relating to the conservation of unstable media. In addition to active participation in four practical laboratories (described below), the research team will also organise a workshop that will assemble the best practices of heritage specialists, such as Architecture of Interaction.¹⁴ Eventually, these new models for a multimedia-based documentation of artistic processes, developed during the innovation programme, will form the foundation for a subsequent phase of post-RAAK phase research that should lead to the further production/reproduction and distribution of the products.

The various phases and implications of the development and design processes are deeply embedded in feedback procedures, both on a user level and on a scientific level. These will form case studies for both the dance education research group and the scientific research team, which will be assessed, tested and informed by experts from the respective fields. For example, the University of Utrecht and others will carry out explorative preliminary research into the complex relationship between dance and writing, in order to identify and structure the questions to be tackled by the innovation programme, and to translate these into areas for research. But there will also be a reverse flow of knowledge: in the second year of the programme, practice-focused research teams will present their provisional results to the scientific research team for evaluation.

Knowledge circulation

The innovation programme employs a variety of distinct components to facilitate the optimal circulation of knowledge among the parties and areas of research concerned: Interactive Dance Workshop Installation; practical laboratories; working conferences; affiliation with the international associates network; and ongoing online publication of project documentation.

Interactive Dance Workshop Installation. This is the project's unique medium for knowledge circulation. It makes accessible information about the artistic training and creation processes, it focuses on knowledge transfer between dance experts and amateurs and it offers the opportunity for direct encounters between analytical and experiential knowledge. It also questions the ways in which knowledge is produced.

Four practical laboratories. These will see the theory-oriented and practice-oriented research teams meeting on location (with the prototype) to get down to hands-on work on the innovation projects and collaborating on further development. One day of each Lab period will be reserved for exchange on, and integration of, the various areas being researched.

Two working conferences. These three-day events will involve all the research groups reporting and reflecting on the sum of the knowledge they have gathered up to that point. There will also be an intensive exchange with the members of the Associates Research Network and with an audience of Dutch professionals from relevant fields.

¹⁴ www.architectureofinteraction.net

International associates network. The innovation programme complies with international best practices in the relevant professional fields through regular feedback from an extensive international associates network. These participating choreographers and heritage specialists, with pioneering research practices, will primarily form part of the annual conference and/or contribute to sub-projects and publications.

Project website. Inside Movement Knowledge will use a project website to ensure ongoing communication with its research community and maintain the availability of relevant information sources for interested professionals. An easy-to-use online content management system will allow participants to organise, share and present their digital media files so the project website can be updated at a minimum of four specific points during the project.

Process supervision. In addition to activities at programme level, a central steering committee will be set up to safeguard the complex interdisciplinary circulation of knowledge that is the motor of the innovation programme. The steering committee will be composed of representatives of the consortium partners and will deliberate every three months, between events, on the preparation, execution and progress of the various activities. The knowledge circulation strategy for the innovation programme assumes that 75% of the knowledge produced will be able to be measured and evaluated using domain-specific indicators. For example, the success of the iterative design process with dance students will be partially based on their feedback as expert users. And the success of the development of a multimedia-based documentation model will be assessed using criteria drawn up by heritage experts. However, 25% of the new knowledge will be unique, and will not fall within a specific domain. This information will form a challenge for its monitoring and evaluation, and the assessment of its level of success. The steering committee is thus expected to make a substantial contribution to the identification and assessment of this hybrid knowledge production. They will then, in collaboration with programme managers, make proposals for the sequel to this RAAK programme.

5. Execution and programme management

- *A blending of experiences and events, in both theoretical and practical contexts, creates a powerful source of inspiration for participating professionals*

Execution

The Inside Movement Knowledge programme has a duration of two years (September 2008 to August 2010) in which time those tools will be deployed that are appropriate for achieving a variety of aims. At project level, a distinction is made between innovation projects (focusing on the development of innovative products) and activities contributing to knowledge production and knowledge circulation – meaning that new knowledge will be gained as part of a product development process and this will be documented and recorded as best practice.

Both innovation projects (Interactive Dance Workshop Installation and Documentation Model for Artistic Processes) will be organised by the research groups EG | PC - AHK/LKAO, AHK/Dance and the NIMK and are embedded in four successive practical laboratories lasting several days each, in November 2008, April 2009, November 2009 and April 2010. Those components more specifically focused on knowledge production and knowledge circulation (integration meetings, University of Utrecht research group, feedback and assessment, steering group, international associates network) will also be subject to a system of phasing and will be involved in the Labs and working conferences in April 2009 and April 2010.

Organised in this way, the programme will be able to offer the various parties a number of opportunities to collaborate with a wide range of 'users' during the project in completing cycles of concept development > experimental drafting > article assessment > evaluation > adaptation. This will also ensure a logical embedding of the dissemination flow and planned presentations and publications at various stages of development and for various target groups, ranging from festival audiences to scientific conferences.

Throughout the entire project period, there will be an ongoing and direct relationship with the input from the theoretical and scientific fields; input that will progress from exploration through investigation to evaluation. Similarly, at predetermined moments during the project the team comprising EG | PC and AHK/LKAO will be involved in project-related education at AHK/Dance and at the University of Utrecht.

Communication *within* the programme will take the form of internal progress reporting, the common responsibility for the project website (which will be updated after each Lab) and steering committee meetings on a least four pre-determined occasions in January 2009, June 2009, January 2010 and June 2010.

External Communication *about* the entire programme will take the form of public events during the two working conferences in April 2009 and April 2010, the project website and the concluding report in August 2010

Programme management

The Amsterdam School of the Arts bears ultimate responsibility for the execution of the RAAK programme. It is the representative.

The program itself is an initiative of the LKAO. The professor concerned is responsible for content and practical execution of the project. The project will be drawn up by the project leaders, Scott DeLahunta and Bertha Bermúdez. Corine Snijders has been appointed as programme manager.

The programme manager's task is to support planning, business management, monitoring and evaluation, and resolve organisational issues with respect to all activities within the project. The programme manager will be guided and supported by the professor concerned and the project leaders. The LKAO will form the research group from specialists in new media and dance. The other members of the consortium will be represented by a professional who will at the same time act as a coordinator within his or her own institution and ensure the proper running of activities within that institution. This coordinator will be responsible for communication with the project leaders, the programme manager and participants in the research project.

As well as by the consortium, the research will be fed into by a group of international specialists, the international associates network.

Springdance in Utrecht will serve in both years as a dissemination platform. To safeguard the progress of the entire project, a steering committee will be established, which will be made up of expert representatives of the consortium members.

6. Dissemination

- *The publication of interim and final results, appropriate for the prevailing forms of knowledge-sharing in an already dynamic professional field*

The consortium members possess outstanding and mutually complementary regional, national and international connections in the worlds of professional arts, heritage, education and science. The tangible products of this programme will be perfectly suited to both theoretical dissemination (digital and printed media) and practical dissemination (presentations and active participation).

Meticulous promotion of the precursor of this research project, through announcements, publications and public debates, has already sparked a great deal of interest among professionals in relevant fields (through platforms such as Cinedans, Dutch Dance Days, Springdance Festival and the Dance Education Biennale).

The final results of the Inside Movement Knowledge research project will be disseminated in ways described below.

a. **Two public working conferences.** These will take place during Springdance 2009 and Springdance 2010. Springdance, which takes place in Utrecht every April, is a 'vanguard festival', as the Culture Council describes it. As such, it is the most prominent platform in the Netherlands for current national and international developments in contemporary dance and performance art. Inside Movement Knowledge has been invited to take advantage of Springdance by organising two working conferences there, in order, among other things, to make contact with other professionals and similar initiatives in the Netherlands and also to make the innovation programme more accessible to the general public.

b. **Publications in professional journals.** This will primarily be done by scientific researchers involved in the innovation project – where possible, in collaboration with specialists from the other research teams. The most obvious publications that also have a peer review function are *Journal of Performance Research*, *International Journal of Performing Arts and Digital Media*, *Dance Research Journal*, *Journal of Interactive Media in Education* and *Inflexions*

c. The **project website**, the **final research report** and the plans for **publication of a book** after conclusion of the project. Here again, we have taken Inside Installations as our model. The previously completed three-year international research projects into the preservation and stewardship of installation art managed to discuss and document thirty contemporary works.¹⁵ The project website will function as an ongoing digital resource for all the partners and platforms involved, as well as for the international

¹⁵ www.inside-installations.org and enclosed publication.

associates network. In this way, the report will be distributed as widely as possible within the professional networks of the fields involved.

d. Public presentations. These will take place at conferences, symposia and other events relevant for the various fields. Given the involvement of more than 25 professionals, there will be numerous opportunities to relate the results of Inside Movement Knowledge or to publish them at festivals, arts centres, museums and so on. Furthermore, in Amsterdam in 2010, the NIMK, one of the project partners, will organise an international conference on Inside Installations in collaboration with the Netherlands Institute for Cultural Heritage and the Foundation for the Conservation of Contemporary Art. This conference will be an important platform for the presentation of the Inside Movement Knowledge project.

e. International associates network. All these interrelated research projects were also initiated by leading choreographers and bring together various professions. Individuals involved will be expected to disseminate on an international level the exchange with, and the achievements of, Inside Movement Knowledge. Professionals from the innovation programme will also participate in international platforms associated with the network partners.

7. Results and success indicators

- *Grounding of results in organisations inside and outside the consortium*
- *Exploration of the potential for communicating the results to related organisations and areas*

The project will be viewed as successful if, at its conclusion in August 2010, the following objectives have been realised:

- Construction of the second version of the Interactive Dance Workshop Installation;
- Reproducibility of the installation, independent of initiator and/or genre;
- Trials of the installation by at least twenty dance students at the Theatre School;
- Trials of the installation by ten dancers and choreographers;
- Two public presentations at Springdance festival in Utrecht;
- Appearance of at least two scientific and/or journalistic publications in (professional) journals.
- Presentations at a minimum of two national and/or international conferences;
- Commitment to continuation of the international associates network with the intention of continuing the project after the RAAK period;
- Adaptations to dance curricula higher education and higher vocational education;
- Demonstrable interest among dancers and choreographers outside the consortium for the documentation and transmission method developed;
- Regularly updated project website;
- Plan for the further development and distribution of the documentation model for artistic processes;

- Plan to reproduce the Interactive Dance Workshop Installation and associated documentation and transmission method, and to distribute same outside the consortium, particularly among dancers, choreographers, professional dance companies and courses, as well as in the amateur dance world.