

CONCLUSION

SUBSTANTIATIONS AND ILLUMINATIONS

Artists create something completely original and new, something beyond the known boundaries of the information base. By using or inventing new tools, they show new uses and applications that synergize and synthesize fields. Artists push the limits of technologies, bringing them to previously unattained goals.

— *Vibeke Sorensen, qtd. in*

Information Arts: intersections of art, science, and technology

There are two sets of conclusions of this research, each of which has its own inherent claims and goals and, therefore, its own standards of evaluation. The first set, entitled “General Claims and Evaluation” stems from the general research claims as set forth on page two — that integrated electronic media can offer innovative support to the creation of theatre art, and that human-computer interaction can introduce innovation into theatre art. The case study was, of course, *Messaging in the Noosphere* and by asserting a descriptive interpretivist evaluation, I will attempt to substantiate my findings and extract these qualitative discoveries into broader issues. The second set of conclusions, entitled “Surprises and Illuminations” deals with conceptual-level connections that evolved through this work and will be interpreted holistically with an emphasis on artistic exploration. This set of insights includes artistic challenges and spiritual awareness that were expressed along this creative journey and an elaboration of their significance.

GENERAL CLAIMS AND EVALUATION

Messaging in the Noosphere *and the Integrated Media Series*

The components of this research project that make up the “Integrated Media Series” are the Integrated Multimedia within the Theatre Art event; the Web site; and the Documentary DVD. Each has its own contribution in terms of offering creative support.

THE INTEGRATED MULTIMEDIA

The Integrated Multimedia introduced to the performance a dynamic exchange where the performers had a relationship between a “virtual” screen and sound space, and a “real” space. In the screen space, scenographic and character elements were displayed visually, and in the virtual sound space the audio track provided character-relational music snippets and atmospheric ambiance. The implications for this in *Messaging in the Noosphere* were that:

- As a visual, scenographic element, the suspended plasma screen reflected the personality of the The Feargod family’s habitation and its occupants. They are media savvy household, early adopters of technology, as evidenced by the “ceiling-mounted” feature of their screen, and happy to respond, as many contemporary families do, to screen-delivered entertainment and education.
- Also visually, every character in the show was represented as a screen image, usually allowing a brief glimpse into the future or into a spacially expanded environment. Notable are God in the Machine’s and Àngel’s roles as a characters of a “not-really-there” or “elevated spiritual” layer of the show where although the audience “sees” them in the real space, they are only perceived by the other characters as residents of the screen space or as virtual reality fragments.
- Like the visual scenographic element, samples of music and sound were selected and mixed together to reflect the characters’ personalities. The conspicuousness

of the musical genres contained in the recorded soundtrack enabled, in my mind, instant recognition of, for example, TLK2U's youth, ASAP's vitality, and Jema and Keren's eastern spiritual affiliations.

- The atmospheric ambiance provided by the original soundtrack and the low-frequency rumblings was meant to subconsciously influence audience reaction. Several spectators talked about the fear-factor of the low-frequency sound, and how remarkable it was to “feel” the sound in their internal organs.

Theatre art innovation that could draw upon these findings would be the streaming in of “virtual” characters who are not seen in the real space but still interact with the characters onstage. This opens up possibilities for celebrity cameos, cost-effective special effects, and even audience interactivity — especially if the streamed media is live from a “remote” location with a symmetrical, or two-way, audio and video broadcast feed.

Another circumstance this research might support future innovation is in the area of theatre and/or entertainment audio and soundscape design. Referring to notes from my journal, it was only audience members reclining on the mats, in the theatre space, who remarked about the power of the sound, possibly indicating that a profound reaction to low-frequency sound texture is available to “listeners” who are positioned in a supine, relaxed, physical orientation.

THE WEB SITE SERVICE

It's clear from the statistical data in appendix item #4 that the *Messaging in the Noosphere* Web site was well-trafficked during the time period of the theatrical presentation. Two primary reasons were identified for building this site in the first place, for promotional services, and for artistic services. The way the Web site could be perceived as a media phenomena that supported innovation in the theatre art are:

- Potential audience members were able to access “rich-media” in the way of video and audio files about the show to decide, for themselves, if they were interested in responding to an invitation to attend the event. About three-quarters of the faculty and graduate students in the Department of Drama attended and, as many expressed to me, their decision was based on the video preview trailer they watched on the Web site. Some may have decided not to attend on the basis of that same information, but that is just an assumption. Either way, the site provided the opportunity for participants to make an informed decision about attendance based on a “sneak peek” courtesy of the rich-media content.
- I did not have great expectations regarding the “artistic” content of the Web site due to my experience of Internet art projects waning in popularity. However, on the occasion that the event was streamed over the Internet to an audience that had been groomed for the experience, there was a surge of visits that cannot help but be seen as a successful artistic endeavour — a customized media event that brought with it innovation in the realm of “self-broadcasting.”

There is, I believe, significance to these particular findings as extensions into further research. In terms of promotion, there are large entertainment organizations, such as Cirque du Soleil, who have successfully deployed extensive online sales and marketing services. (Cirque du Soleil 2004) *Messaging in the Noosphere* was free-of-charge and did not require any kind of sales initiative but considering how relatively easy it is to publish to the Web, enhancing the site to allow for ticket sales, contests, or discussion groups is not a difficult task.

When it comes to the issue of “self-broadcasting,” David Diamond’s observations about the outreach he has achieved for his interactive Forum Theatre comes to mind. In the *Canadian Theatre Review (CTR)*, he proudly expressed that his group broadcast three political theatre productions around the world using Internet technology thereby,

“circumventing any dependence on main-stream broadcasters.” (Diamond, 2004, 13) Every day there is a compounding of the amount of re-purposed broadcast content or plain old junk on the Web but the good news is that it’s pushing the Web audience into faster Internet connectivity, thereby facilitating a “super-highway” that is keeping one small lane open for an invited artistic broadcast audience.

THE DOCUMENTARY DVD PRODUCT

The documentary DVD makes a decidedly practical contribution to the integrated media series as a product that allows for archival preservation of the theatre art. In a more subtle way, the methodology of planning and the technique of shooting also induced certain directing decisions, resulting in performance and scenographic implications.

- In terms of its archive-ability, a return engagement of the performance can be solicited on demand in a readily accessible format. It transforms the performance into a version that defies the “transitory” nature of live theatre art and also embellishes on its original form by offering a directors commentary and many other bonus features. For example, the *Messaging in the Noosphere* DVD, has already been catalogued and put on display shelves at the Media Library at the University of Art and Design, Helsinki, Finland, and at Universität, Bremen, Germany.
- The value of the interactive DVD as a personal portfolio piece is inter-connected with its role as an archival product. This is largely tied into the package’s cover art. Judging a DVD by its cover is even more tempting than the old adage about books because with books, one can at least look through the pages to get a quick survey of the text and illustrative content. However, with films on DVD, the only way to get past the silver-circle-of data-look of the end product is to load it up and watch it. The personal portfolio aspect of this media product is readable as a time-

based cinematic experience, with a little assistance from DVD hardware, but instantaneous information can be gleaned from the cover art, most importantly the video grabs

- The contribution that the shooting of the documentary made to the theatre art was in the areas of performance style and action, audience placement, and the relationship of the lighting and the scenographic design. I like to think that these sensibilities, described throughout the paper, created an ambiance of intimacy where each audience member was engaged in a immersive experience that replicated the voyeuristic attributes of a camera lens.

The broadest application of this phase of the research is its potential contribution to the field of entertainment media art. Integrating the skills and talents of theatre actors, designers, writers, and dramaturgs with the abilities and vision of new media engineers and scientists can open up entirely new vistas of creative practice and research. Multidisciplinary art, science, and technology programs such as this are already available at many art and technology universities around the world; a case in point being UCLA's HyperMedia Studio, the experimental production facility within the UCLA Theater School, that researches interactive performance-based media content. In this study program, students create theater that marries digital technology with the performance arts, and graduates have moved into the creative ranks at Industrial Light and Magic, Pixar Studios, and other entertainment-related companies.

From my perspective John Reaves' challenge to theatre art experimentalists, cited in the introduction of this paper, is strongly worth considering — “Why not be aggressive in the tumultuous context of the Digital Revolution? Why not claim all interactive art in the name of theatre?”

The *Messaging in the Noosphere* documentary DVD demonstrates, in its small way, that computer-mediated interactive media can reassign itself as an alternative experience for a new audience, but still retain the strong identity as being theatre art.

Messaging in the Noosphere and Human-Computer Interaction (HCI)

According to the definitions established for Human-Computer Interaction (HCI) and its “rich space of possible topics” that originally beckoned my involvement as an artist, here are some of the points raised within this research that seem to validate the claim that human-computer interaction can introduce innovation into theatre art.

DISTANCE OF EXPERIENCE

The theory of “Distance of Experience” was originally introduced to me in a textbook I used to teach a “Multimedia and Mass Communications” course at the Southern Alberta Institute of Technology. The book, written by the Vivid Studios’ editorial consortium and entitled *Careers in Multimedia*, was a useful study guide for projects, platforms, industries, and job descriptions within the new media industry.

There was a small sidebar called “Distance of Experience” within the section on media “platforms” (meaning the operating system, hardware components, and delivery media used for interactive playback). The concise idea in that sidebar proved to be a springboard for much of my curriculum in that course, as well as for my continuing interest in human-computer interaction.

One meaningful way to look at platforms is in terms of the distance at which experiences occur — experiences being a discrete and meaningful event. The distance at which experiences occur help determine their structure and dynamic. These experiences in turn determine the level of interactivity, the balance of interaction between parties, and its context. (Fromm et al. 1995, 12)

In *Messaging in the Noosphere*, distance of experience influenced the balance between the performance, in its various media incarnations, and the context and dynamic of audience reaction. For example, a two-foot distance of experience can be thought of as an intimate dialogue, either one-on-one with another person or as a direct human-computer interaction. The *Messaging in the Noosphere* Web site, as viewed on a computer screen and controlled by a mouse, falls into that category where the balance of viewing between the characters' video clips in the "Future of Tomorrow" game could be thought of as an intimate HCI-enabled conversation. Another two-foot distance of experience within the project is represented by the "intimate," contact I had with my computer when editing the Integrated Multimedia or the DVD documentary — the human, computer, synergy dynamic of HCI that I wrote of in the first paragraphs of this paper that still holds true as a successful formula for my creative work.

A fourteen-foot distance of experience is more like a dinner party where the balance of interpersonal dialogue is less direct or controllable. If viewed by a group of friends on a television monitor in a living room and remote controlled, the *Messaging in the Noosphere* interactive documentary DVD is an example of this distance of experience. However, if taken into a big stadium style theatre or cinema, the documentary DVD takes on characteristics of a fifty-foot experience where the audience on the receiving end has less opportunity for input. Most theatre art is also represented by this fifty-foot or "stadium style" presentation technique.

This brings up the issue of "immersive" or "zero distance of experience" — a concept that moves beyond the scope of ideas articulated by the Vivid Studios editorial consortium. This is an area of practical research that I believe has tremendous potential in terms of theatre art, audience experience, virtual environments, and human-computer/technology interaction. The goal of zero distance of experience is to allow individual audience members to literally *become* "the actor" — living the story and playing the part themselves. In the *Messaging in the Noosphere* theatre art event itself, I

flirted with this type of immersion by positioning the audience in the middle of the action, encircled by the sounds, movement, and narrative expression on the plasma screen and in the “live” space. I “simulated” first-hand audience participation at the point when Àngel sits up from her audience mat and “phones” her performance into the Integrated Multimedia. Much more can be accomplished in this artistic research arena by marrying virtual reality technology with interactive operatives planned and written into the theatrical narrative at the early stages of development.

ARTISTIC SIGNIFICANCE OF HCI AND CHI

In the *Messaging in the Noosphere* theatre art, crystals were symbols of input devices and the plasma screen was symbolic of an output device, combining to create a scenographic metaphor of a futuristic three-dimensional computer. Within this simulated computer system, there were two types of interaction dynamics between characters and simulated computer — the influence the character had on the computer, HCI or human to computer interaction, and the influence the computer had on the characters, CHI or computer to human interaction.

Notable artistic innovations that stemmed from incorporating HCI in the theatre art were:

- Many of the characters’ HCI preferences, or preferred activities, were paraded across the screen of the Integrated Multimedia screen display giving an indication of their personality traits, goals, and emotions, functioning, therefore, as a visual dramatic foreshadow device.
- Innovative support to the physical text of the theatre art event was evident in the way that each character responded to these needs with direct-computer-manipulation techniques. In HexaKali’s instance, it was Kathakali hand movements that indicated her HCI, TLK2U handled the same interaction with

sensor gloves and headset voice recognition, SatanKali slashed with her knives, ASAP drummed, and the sisters tickled.

- Even though many scenes in the theatre event were solo vignettes, the ubiquitous “computer” on the set enabled scene partnerships that resulted in speech “dialogues” rather than monologues — even if there was only one performer on the set. Since, in my opinion, monologues on stage or screen often give the appearance of character insanity or old-fashioned directing decisions, computer screen-initiated scene-partner responses were a good way to provoke a logical and contemporary dynamic of conversational cause and effect. On a practical note, the “computer” character was also always available for rehearsals, keeping scheduling simple and streamlined.

Among the artistic influences that stemmed from CHI in the theatre art, as extracted from chapter five, were:

- The God in the Machine, being a digital inhabitant of the computer, dripped instructions to many of the characters from the screen display, prompting behavioural actions. For example, “Fill thy mouth with laughing” caused HexaKali to laugh, “Warrior, turn away evil, hold fast your integrity” caused ASAP’s seduction of SatanKali, and “Buy low, sell high” caused ASAP to drum at the Noosphere array to double his prosperity.
- The CHI guided much of the physical movement and choreography such as HexaKali’s running motion from crystal to crystal with arms outstretched, or the sisters’ sequences of yoga asana movements.

In a specific sense, without the innovative occurrences of HCI and CHI, *Messaging in the Noosphere* would not have been the same show. HCI/CHI formed the nucleus of the

visual and physical text, as evidenced by scenography and choreography, and greatly aided in the evolution of the narrative plot. In a greater sense, the value of the production, artistically, was to provide an example of how a creative artist, such as myself, could frame HCI scientific discoveries in a context that gives meaning to the monumental change in our society as a result of humans and computers interacting.

INDUSTRIAL SIGNIFICANCE OF THEATRICAL HCI

Whereas the artistic significance of *Messaging in the Noosphere* might be seen as a way of extending art to include technical and scientific influences, industrial significance could be seen as a mechanism for getting industrial designers to look beyond today's limitations.

The SIGCHI committee describes ergonomics as the “anthropomorphic and physiological characteristics of people and their relationship to workspace and environmental parameters.” (Hewett, et al. 1996, 21) In a practical sense, if we could implement a system of corporeal computer communication, it would lift the operative binary of “us and it” where we could flow through an ambient computer space like a second skin — a noosphere or “cosmic membrane that has been snapped around the globe by the electric dilation of our various senses.” (McLuhan 1964, 46)

Moving within this kind of techno-skin could implement quality of life changes: dealing with fatigue and health issues, improving furniture, interior design and workspace design, and enhancing computer usage for the disabled. Ben Shneiderman, an eminent figure in the area of information search and visualization, urges designers to find ways to make interaction with computers more effective for users with physical, cognitive, and perceptual challenges. (Shneiderman 1998) A corporeal experience, like this hypothetical Noosphere computer might provide, could manifest a fulfillment of these ergonomic requirements, freeing users from repetitive stresses associated with mouse to screen interactions.

SURPRISES AND ILLUMINATIONS

Design and writing as a screen-based experience

In retrospect, a major surprise that emerged from this work was the creative impact the Web site HCI design work had on every other aspect of the *Messaging in the Noosphere* project. As mentioned in chapter seven, Web site design styles, metaphors, and conceptual modelling influenced the scenographic sensibilities of the theatre art, but their influence didn't stop there. The Integrated Multimedia, the DVD menu interface, and the print and promotional material also benefited from the developmental efforts invested in Web site conceptual modeling and graphic design.

Another unexpected element that benefited by Internet-enabled screen processing was script writing. By opening up the “warrior’s tale,” to creative collaboration with a team of participants through threaded email correspondence, characters evolved, stories emerged, and drama was created through improvised character interaction. I am attracted to the potential that this process holds for script writing with its synthesis of the time-honoured art of letter writing, and the intimate spontaneity of a personal conversation.

Innovation in rehearsal and preparation

Rehearsal time in most film and TV production is miniscule in comparison with theatre. From my own experience in the television series in which I performed for many years, *It Figures*, typically less than an hour of rehearsal was scheduled for each half-hour segment that was videotaped. Most of the dialogue, mind you, was improvised and we were able to, more or less, play ourselves, but the choreography was tricky and we had to just learn it fast and stay perfectly alert from the moment the camera rolled. I took a similar approach to *Messaging in the Noosphere* by crunching rehearsal time to a minimum in exchange for utmost concentration and effort from the performers.

I'm conscientious about efficient use of time, and scheduled each actor for a maximum of eight to ten hours of meetings and rehearsal — and this included the shooting of all the video that was required for the “Integrated Multimedia” screen display. The quality of performance commitment was surprising and admirable. Despite the fact that these Noospheric characters had never been performed before, demanding an inherent burden/joy of collaborative exploration, the actors took ownership of the process, stayed focused, and were able to deliver truthful performances despite a minimum of rehearsal time. I attribute this firstly to the choice of performers who were up to the task of quick creative processing, but also to my consistent peppering of their lives, over the four-month period preceding the performance, with supplemental music and sound clips on CD, video-rush screenings, Web site script-in-process fragments, and email pep talks that they could activate and respond to at their own convenience. These computer-mediated news and update activities were great time savers.

Explorations as Experimental Theatre Art

When I set up the “explorations” outlined in chapter six, my intention was to harvest the results for evidence that scientific methodology could support the creation of theatre art. Instead, the revelations that came about from the results of these experimental endeavors proved to contribute to my understanding of the artistry of the theatre in a manner that was incidental to anything scientific. Especially valuable were the informal discussion periods after the performances that, as chronicled in my journal, informed me about audience members' feelings about the beauty of the theatrical experience, the power of the live vocal offerings, and the impact of believability of the performances, among other things. The discussions, which were sandwich-mediated rather than computer-mediated, connected me to the potentials of my life as an artist rather than cement, as I thought it might, a relationship between my activities and their scientific extrapolations.

Contentious Issues

Like Eugenio Barba suggests, theatre can be a way of refusal. He says, as cited at the beginning of chapter six, that “technique in theatre and the attitude that it presupposes is a continual exercise in revolt.” (Barba 2000, 56) I took up the gauntlet of revolt in several subject areas in *Messaging in the Noosphere*. As mentioned, I challenged the sanctity of the theatre as a cellphone-free zone. But I also introduced a few other contentious issues such as a “Prosperity” game that has, as its aspirational goal, the capitalist venture of making an instant \$400,000 fortune; a “Bad-ass Adventure” game that featured SatanKali, a gender-biased adversary, and “Integrated Multimedia” that uses copywritten, pre-produced material, albeit usually in three-second segments. To my surprise, none of these issues was raised in either the dozens of feedback emails I received from audience members or in after-show chats. Audience members were instead, more interested in exuding a general joyfulness and congratulation, and chose to discuss topics about artificial intelligence, multi-media interaction in theatre art or the beauty of our world rather than focus on my intertextual controversies. I found this surprising because I was prepared to be challenged on these points, but at least I was able to ponder and play out the issues as part of my research and come to terms with my own feelings and the way they connect to my life. One thing I know for sure is that *Messaging in the Noosphere* is the only time I would willingly tolerate cellphones in a theatre or any other “sacred space.”

An Illumination of the Senses

*Someday, after mastering the winds the waves the tides, and gravity,
we'll harness, for God, the energies of love, and then for the second time
in the history of the world, we will have discovered fire.*

— *Pierre Teilhard de Chardin*

Among the accolades and congratulations for *Messaging in the Noosphere*, some people who saw the show expressed concern about not having understood the “meaning” of what I was doing — suggesting it was overly cryptic or just blatantly asking, “What did it mean?” Early in the process I had wondered if audiences would unravel the inter-woven complexities of the three concurrent stories and if they would need to in order to attain satisfaction from this performance. Obviously some of them hadn’t and studying this situation became an “illumination” in this work.

Why had I never identified a literary “theme” or “meaning” as a goal within the equation of theatrical development? I’ve concluded that it was because, in the formative process, I distributed creative energies equally among physical, visual, and aural texts as systematically, and probably more reverentially, than the verbal text. As a result, my purpose, message, or “meaning” became coincidental to the “words” of the script and was revealed in an expression of sensory experience other than what one can “read” or hear spoken in performance.

Upon analysis of the feedback that I received from the audience, I realize that those who had been most concerned about not discerning a “meaning” had been spectators who hadn’t reclined on the mats on the floor in an audience “gathering” as intended. They had either watched the Internet broadcast stream or DVD documentary, or were seated in the “Cherubim” space behind the action during the theatre art — “outliers” who did not physically receive the full effect of the electrified, multi-modal audio-tactile experience.

More important than the rhetoric of the literary story narrative of families and gods was the sensorial, non-verbal “content” that, when attached in a McLuhanesque fashion to the “medium” of the scenography, translated into the message of the Noosphere. This message, I now believe, was only lost to those who had not reclined among the circular audience community.

Messaging in the Noosphere delivered its “meaning” viscerally. To be fully impacted by the low-frequency audio, an audience member had to lie back, relax, and expose their belly to the power of the sound. To perceive the “Integrated Multimedia” and the live performance all in one “gulp,” they had to aim their gaze upward toward the plasma screen with only the live performance action in the field of vision between. And, most importantly, to receive the kinetic song vibrations delivered by the God in the Machine in level five, they had to be within the immediate range of her compelling, vibratory sonics. Her non-verbal illuminations, enhanced by Pierre Teilhard de Chardin’s poignant passage in the verbal text of level five and seen in the epigraph above, added up to the “meaning” of *Messaging in the Noosphere* — that through a willing dilation of our senses, we can harness, for God, the energies of love and come to a greater understanding of ourselves, our world, and our cosmos.

Through the process of visualizing, then writing, directing, and producing *Messaging in the Noosphere*, I became more certain about my own thoughts and values about the existence of a creator in our universe. I made a production about an electrified sphere of cosmic consciousness in the guise of a three-dimensional computer. I evolved a God into this machine who was able to open us all — the performers, the audience, and myself — to feelings of love, peace, and wellbeing through an interplay of all the senses. Perhaps for the first time in my life, through deliberate thoughts and actions I opened a channel for my own spiritual inspiration, and, in turn, offered this gift to others — the performers and the audience of *Messaging in the Noosphere*. By expanding the power of my own creativity, I believe I have been guided toward a divine path for my work and for

my life. The admission of this truth comes from my soul at its very most vulnerable — a fragile place of artistic self-discovery.

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In chapter one of this thesis paper, I identified a set of goals that I had written in my personal journal. I wanted to provide, for my audience, an experience of unified involvement at a zero-distance of experience. I also wanted to communicate the scenographic array as being symbolic, on a practical level, of a human-computer interface and, on a cosmic level, of a central nervous system communicating into the Noosphere. All things considered, I feel comfortable in having achieved these personal goals. Nevertheless, in addition to the achievements of this production, there were challenges; the most notable being that the “story narrative” in its literary form, fell short of providing a valuable, meaningful experience as a stand-alone play script. The “organic or dynamic dramaturgy” that Eugenio Barba describes as “the composition of the rhythms and dynamics affecting the spectators on a nervous, sensorial, and sensual level” was in place. However, before being publicly presented, my script ought to have been put through a dramaturgical workshop process to establish, as Barba puts it, a “narrative dramaturgy which interweaves events and characters to inform the spectators on the meaning of what they are watching.” (Barba 2000) I now appreciate that the art and craft of complete, thematic storytelling deserves to be honored as part of conventional dramatic tradition and it’s an important lesson that I will take forward into future work — to supply, in addition to the physical, aural, and visual audio-tactile stimulation, a narrative dramaturgy or thematic “meaning” of the work within its verbal text.

SPECULATIONS AND FUTURE RESEARCH

Besides the improvements that could have been made with additional theatre artistry, there were also ways *Messaging in the Noosphere* could have progressed if technology and science had had a possibility of being implemented. The scenographic array of crystals could have been sensitized to interaction from audience or performers, creating, in effect, a fully functional three-dimensional computer. Or the performance could have been moved out of a conventional theatre space and into an engineered virtual reality cave where the character Àngel might have appeared as a stereoscopic VR fragment. Or HexaKali could have been streamed, by satellite or Internet broadcast, into the space from an offsite location. These ideas, originally poised to enhance the spectacle of *Messaging in the Noosphere*, are waiting in the wings, warmed up and ready to assert their significance into the scenes of future productions.